

State of the art

patent news archive 2003

US6660964: Optical modification of laser beam cross section in object marking systems

Assignee: none

Publication: 09/12/2003

Filed: 22/09/2000

Contents: Cells of a liquid crystal device are switched between transparent and dark states or, alternatively, reflectors of a microelectromechanical system are switched between tilted states, to form a marking pattern and control the transmission of a laser beam to an object to be marked.

Granted

EP0798767B1: Removal of carbon from substrate surface

Assignee: PRAXAIR TECHNOLOGY, INC.

Publication: 10/12/2003

Filed: 28/03/1997

Contents: The invention is a method of removing materials such as carbon and metallic elements from a substrate surface via heating in an atmosphere of molecular chlorine and steam.

Granted

WO03099054A2: METHOD AND APPARATUS FOR IDENTIFYING GEMSTONES

Assignee: WARWICK, Malcolm, Raymond

Publication: 04/12/2003

Filed: 29/05/2003

Priority: 29/05/2002

Contents: An apparatus for obtaining information about inclusion geo-spatial orientation within a gemstone comprises a means to measure the distance to and location of one or more selected inclusions within said gemstone relative to one or more points of assessment situated on or within said gemstone; and a monitoring system for collecting, compiling and analyzing data on the same.

Application

US6665058: Device for judging symmetry, brightness, and efficiency of light return in precious stones

Assignee: EightStar Diamond Company, Inc.

Publication: 16/12/2003

Filed: 24/05/2000

Contents: The invention is a multicolored reflecting disc that can be mounted to a lens for grading gemstone brightness and symmetry. The disc has an opening or aperture through which the gemstone is viewed on the object side of the lens. The aperture is surrounded by multicolored concentric rings which face the gemstone. Light reflecting from the multicolored rings creates specific colors on the gemstone that allow symmetry and brightness of the tone to be evaluated.

Granted

WTOCD

US6662716: Flame marking system and method

Assignee: none

Publication: 16/12/2003

Filed: 16/05/2001

Contents: Diamonds are marked by applying apertured tapes bearing identifying indicia to the girdles, applying a flammable layer over the apertured tapes, and then igniting the flammable layer to burn the indicia into the girdles. Preferably, the flammable layer is prepackaged within the apertured tapes.

Granted

EP1087899B1: A PARTICLE RETRIEVING APPARATUS

Assignee: Element Six (PTY) Ltd

Publication: 10/12/2003

Filed: 28/04/1999

Contents: A particle retrieving apparatus comprising a particle receptacle for receiving particulate material, a collecting probe for retrieving particles from the particulate material in the receptacle, drive means for driving the probe, characterized by a sensing arrangement for sensing the contact position of the probe as it comes into contact with the particulate material, recording means for recording the contact position of the probe and control means for controlling the motion of the probe via the drive means in a subsequent retrieval cycle on the basis of the recorded contact position.

Granted

USD483687: Gemstone

Assignee: Continental Jewelry (USA) Inc.

Publication: 16/12/2003

Filed: 21/11/2002

Contents: Design.

USD483290: Diamond cut design

Assignee: Asprey Holdings Limited

Publication: 09/12/2003

Filed: 12/06/2002

Priority: 13/12/2001

Contents: Design.

USD482985: Cut for a jewelry stone

Assignee: none

Publication: 02/12/2003

Filed: 14/05/2002

Priority: 14/11/2001

Contents: Design.

USD481650: Diamond

Assignee: M. Fabrikant & Sons, Inc.

Publication: 04/11/2003

Filed: 25/09/2002

Contents: Design.

WTOCD

USD481649: Gem stone cut

Assignee: Premier Gem Corporation

Publication: 04/11/2003

Filed: 10/07/2002

Contents: Design.

USD483686: Natural or artificial gemstone or ornamental object made of glass

Assignee: Swarovski Aktiengesellschaft

Publication: 16/12/2003

Filed: 11/09/2002

Contents: Design.

US20030221451A1: Decorative stone made of glass

Assignee: none

Publication: 04/12/2003

Filed: 29/05/2002

Contents: Decorative stone made of glass with a faceted front and a mirrored rear converging from the periphery of the stone to a point provided with an adhesive, wherein the angle between opposite surfaces of the rear of the stone is more than 150°.

Application

US20030223054A1: Method and apparatus for identifying gemstones

Assignee: NATURAL CRYSTAL INFORMATION SYSTEMS

Publication: 04/12/2003

Filed: 29/05/2002

Contents: An apparatus for obtaining information about inclusion geo-spatial orientation within a gemstone comprises a means to measure the distance to and location of one or more selected inclusions within said gemstone relative to one or more points of assessment situated on or within said gemstone; and a monitoring system for collecting, compiling and analyzing data on the same.

Application

US20030221452A1: Jewel bearing a gemstone

Assignee: MICKEY WEINSTOCK & CO.

Publication: 04/12/2003

Filed: 30/05/2002

Contents: A jewel bearing a gemstone, the jewel comprising a body and a holder on which the gemstone is fixed, the holder being shaped such that the gemstone is uncovered at least within a virtual infinite cylinder, drawn on an axis of symmetry of the gemstone, characterised in that the holder is attached to the body in a fixed position, the body being shaped such that it is completely located outside the virtual infinite cylinder.

Application

WTOCD

US20030221450A1: Contoured jewelry ring

Assignee: none

Publication: 04/12/2003

Filed: 28/05/2002

Contents: A ring is provided having a crown, a shank defined by a pair of sidewalls, and a base extending between the shank sidewalls. The shank is oriented obliquely to the crown at an angle between 15° and 30° and when worn, the base is at an angle relative to the longitudinal finger axis and lies alongside the proximal digital palmer crease. The crown and the shank may form a circular opening framed by a square outer perimeter such that the junction of the base and shank sidewalls are of an increased thickness. The shank sidewalls may include a flared portion interconnecting them to the crown having a front edge and a back edge that diverge along a curved line. The base may include a substantially flat front surface, a bottom surface and a convex surface extending therebetween. The crown may include an inlaid design or gem stone setting

Application

US20030221453A1: Combination jewelry setting and precious stone

Assignee: Aurelian, Inc.

Publication: 04/12/2003

Filed: 28/05/2002

Contents: A combination of a precious stone and a jewelry setting having a plurality of heart-shaped supporting members each having a first end having a double lobe shape and a second end having a generally pointed shape and a maximum width intermediate the first and second ends. The supporting members are connected to one another in series at a position proximate the maximum width to form an endless support structure. The precious stone is mounted within the support structure.

Application

US20030224167A1: Hybrid gem System

Assignee: none

Publication: 04/12/2003

Filed: 28/05/2002

Contents: A hybrid gem system for providing a protective coating and enhanced optical qualities to a gem media. The hybrid gem system includes coating an first portion and a second portion of a gem media with a diamond like carbon (DLC) coating. The gem media may be comprised of any gem structure including synthetic or natural. The DLC coating enhances the wear resistance, color and optical characteristics of the underlying gem media.

Application

EP1042132B1: DIAMOND OR GEMSTONE MARKING BY PLURALITY OF GROOVES

Assignee: GERSAN ESTABLISHMENT

Publication: 03/12/2003

Filed: 23/12/19998

Contents: A method and apparatus for forming a mark on the surface of a diamond or gemstone, the mark consisting of a plurality of grooves which do not detrimentally affect the clarity grade of the diamond or gemstone, and which exhibit a highly diffractive effect under certain illumination and magnification conditions. An apparatus and method for viewing such a mark is also described.

Granted

WTOCD

US6652763: Method and apparatus for large-scale diamond polishing

Assignee: HRL Laboratories, LLC

Publication: 25/11/2003

Filed: 03/04/2000

Contents: A method and apparatus for the polishing of diamond surfaces, wherein the diamond surface is subjected to plasma-enhanced chemical etching using an atomic oxygen polishing plasma source, are disclosed. In the apparatus, a magnetic filter passes a plume of high-density, low-energy, atomic oxygen plasma. The plasma is capable of uniformly polishing diamond surfaces.

Granted

US6656444: Methods for synthesizing high-efficiency diamond and material and diamond material produced thereby

Assignee: P1 Diamond, Inc.

Publication: 02/12/2003

Filed: 27/10/2000

Contents: A method for making diamond material comprises providing a deposition chamber; placing a substrate in said deposition chamber; sealing and evacuating said deposition chamber; admitting to said deposition chamber gases suitable for diamond deposition; heating said substrate to a diamond deposition temperature; igniting and maintaining a plasma adjacent to a growth surface of said substrate such that said plasma extends no further than 1 mm from said growth surface of said substrate; and maintaining said plasma during a diamond deposition time period.

Granted

EP1023246B1: DIAMOND CORE WITH A DIAMOND COATING

Assignee: Element Six (PTY) Ltd

Publication: 26/11/2003

Filed: 25/09/1998

Contents: A diamond product which comprises a diamond core and a coating of diamond completely enclosing the diamond core, the coating diamond being different to that of the core diamond and both the core diamond and the coating diamond influencing the characteristics of the product. Generally, both the core diamond and the diamond coating constitute at least 5 percent by volume of the product.

Granted

EP1365047A1: Diamond film and method for producing the same

Assignee: SHIN-ETSU CHEMICAL CO., LTD.

Publication: 26/11/2003

Filed: 23/04/2003

Priority: 25/04/2002

Contents: There is disclosed a method for producing a diamond film on a base material by a vapor phase reaction at least with introducing a raw material gas, wherein B(OCH₃)₃ gas is added to the raw material gas as a source of boron to be doped, and a diamond film is deposited on the base material by a vapor phase reaction utilizing the mixed raw material gas. There can be provided a method enabling easy and uniform production of a diamond film showing a low electric resistivity value with good reproducibility and few problems concerning handling such as serious bad influence on human bodies and explosiveness during the doping process.

Application

WTOCD

US20030205190A1: System and method for producing synthetic diamond

Assignee: Linares Management Associates, Inc.

Publication: 06/11/2003

Filed: 08/04/2003

Contents: Synthetic monocrystalline diamond compositions having one or more monocrystalline diamond layers formed by chemical vapor deposition, the layers including one or more layers having an increased concentration of one or more impurities (such as boron and/or isotopes of carbon), as compared to other layers or comparable layers without such impurities. Such compositions provide an improved combination of properties, including color, strength, velocity of sound, electrical conductivity, and control of defects. A related method for preparing such a composition is also described, as well as a system for use in performing such a method, and articles incorporating such a composition.

Application

WO03091467A2: PROCESS FOR MANUFACTURING DIAMOND USING A NOVEL METHOD OF CATALYSIS AND A NEW METHOD FOR PROCESSING THE GRAPHITE AND CATALYST MIXTURE USED IN SYNTHESIS

Assignee: THE MORGAN CRUCIBLE COMPANY PLC

Publication: 06/11/2003

Filed: 25/04/2003

Priority: 25/04/2002

Contents: A method for making alloy materials for use in the manufacture of synthetic diamonds, in which the alloy materials are manufactured chemically using a wet chemical method.

Application

JP2003210221A2: METHOD FOR CUTTING DIAMOND AND DIAMOND PROPORTION

Assignee: DIANASUN KK

Publication: 29/07/2003

Filed: 22/01/2002

Contents: A diamond rendering reflective light off the table goldenly brilliant by making a proportion thereof symmetry at any place viewed from an upper face, a side face or a bottom face.

Application

US6650489: Gem identification viewer

Assignee: Gemological Institute of America, Inc.

Publication: 18/11/2003

Filed: 17/07/2002

Contents: A gem identifying device using filtered transmitted light for use in distinguishing type-I colorless diamonds from type II colorless diamonds, and natural diamonds and gems from synthetic or treated diamonds and gems.

Granted

WTOCD

WO03093173A2: DIAMOND SYNTHESIS

Assignee: BLACKLIGHT POWER, INC.

Publication: 13/11/2003

Filed: 30/04/2003

Priority: 2002-05-01 US2002060376546; 2002-06-24 US2002060390439; 2002-08-01 US2002060399739; 2003-04-15 US2003060462705

Contents: The present invention relates to a cell, system, and methods to form diamond from carbon in a plasma formed or assisted by the catalysis of atomic hydrogen to lower energy states.

Application

US6649863: Gemstone marking system with a focus sensing unit for sensing relative disposition between a marking surface of the gemstone and a focal plane of a laser beam

Assignee: Potomac Photonics, Inc.

Publication: 18/11/2003

Filed: 15/01/2002

Contents: A gemstone marking system includes a focus sensing unit sensing relative disposition between the marking surface of the gemstone and the focal plane of the laser beam. The focus sensing unit includes a light source emitting a collimated optical beam directed in parallel to the focal plane of the laser beam and overlapping regions positioned in close proximity to the focal plane of the laser beam, an optical detector measuring the power of the sensing optical beam (the power of the sensing optical beam depends on a relative disposition between the marking surface of the gemstone and the focal plane of the laser beam), and a signal processing unit operationally coupled to the output of the optical detector for receiving and processing data corresponding to the relative disposition of the marking surface of the gemstone and the focal plane of the laser beam.

Granted

US6649009: Process for placing one faceted stone inside a larger faceted stone to form a single jewelry stone

Assignee: none

Publication: 18/11/2003

Filed: 29/08/2002

Contents: A decorative jewelry stone and process for developing the stone. The process includes providing a primary stone and defining a cutting plane on the primary stone. The primary stone is then cleaved at the cutting plane to produce first and second portions, each of the first and second portions having a planar surface. A cavity is then bored into the planar surface of one of the first and second portions of the primary stone. A secondary stone is then placed within the cavity and a bonding agent is applied to the planar surface of one of the first and second portions.

Granted

WTOCD

EP0853690B1: SILICON CARBIDE GEMSTONES

Assignee: none

Publication: 29/10/2003

Filed: 27/08/1996

Contents: Synthetic gemstones having extraordinary brilliance and hardness are formed from large single crystals of relatively low impurity, translucent silicon carbide of a single polytype that are grown in a furnace sublimation system. The crystals are cut into rough gemstones that are thereafter fashioned into finished gemstones. A wide range of colors and shades is available by selective doping of the crystal during growth. A colorless gemstone is produced by growing the crystal undoped in a system substantially free of unwanted impurity atoms.

Granted

WO03086133A2: GEMSTONE CUT

Assignee: PREMIER GEM CORPORATION

Publication: 23/10/2003

Filed: 10/04/2003

Contents: A novel gemstone cut comprising a crown, a girdle, and a pavilion is described, wherein the gemstone includes precious gemstones (such as diamonds) and semi-precious gemstones. The crown includes an octagonal table, which is surrounded by eight triangular star facets. Eight table bezels are disposed in-between the star facets and eight mid-bezels are disposed in-between the table bezels. Furthermore, the gemstone's pavilion has eight concentrically arranged culet pavilion facets, a girdle pavilion facet and a bottom small break facet that are disposed in-between the culet pavilion facets. The gemstone's girdle has eight to left top half facets and eight right top half facets (located in-between the girdle bezels of the crown), and eight left bottom half facets and eight right bottom half facets (disposed in-between the girdle pavilion facets and bottom small break facets).

Application

GB2387437A1: A method of authenticating an article or its origin

Assignee: GERSAN ESTABLISHMENT

Publication: 15/10/2003

Filed: 09/04/2002

Contents: Methods for labelling an article or substance, comprising securing oligomers thereto, at least two being binding oligomers, A and B, carrying binding sites for a third, key substance, C, a coordination complex between said binding oligomers and said third substance being detectable to confirm the presence of said binding oligomers on said article or substance, a plurality of non-binding oligomers being present in excess to render copying of the binding oligomers unattractive provide a greater level of security than that currently offered by tagging techniques. Preferably, the oligomers are polynucleotides ie DNA oligonucleotides, and A and B may be used as primers in a PCR. Preferably, the article to be authenticated is a precious stone e.g. a diamond.

Application

USD481327: Pentagonal cutting diamond

Assignee: Nelson Jewellery Arts Company Ltd

Publication: 28/10/2003

Filed: 04/06/2002

Priority: 05/06/2002

Contents: Design.

Application

WTOCD

WO03089913A2: METHOD AND APPARATUS FOR ASSESSING THE INTEGRITY OF A JEWELLERY SETTING

Assignee: JEWELRY SECURITY, LLC

Publication: 30/10/2003

Filed: 16/04/2003

Priority: 19/04/2002

Contents: There is provided a method for assessing the integrity of grip of a stone in an jewellery setting having plural gripping claws to grip said stone, the method comprising heating the stone; measuring conductive transfer of heat from the stone to each of said plural gripping claws; and comparing said conductive heat transfer to said each gripping claw, wherein a marked difference in conductive heat transfer to any of the gripping claws indicates a lack of integrity of grip. Suitable apparatus is also provided.

Application

US6642475: Etched article and method of etching

Assignee: none

Publication: 04/11/2003

Filed: 07/09/2001

Contents: A substrate is marked by applying a high melting point material over a lower surface of the substrate, and then heating the material layer. Indicia are formed by directing a source of radiant energy through the substrate for impingement on the material layer, and by moving the source and/or the substrate relative to each other.

Granted

US6634184: Prongless gemstone setting

Assignee: Hord Crystal Corporation

Publication: 21/10/2003

Filed: 12/06/2002

Priority: 03/12/2001

Contents: A prongless setting for mounting a gemstone and a method of manufacturing the same. The setting includes a base that is formed from a flat piece of metal, which is bent into the shape of a box having an open top. Two arcuate members are provided along the top edges of the box. A gemstone is placed into the open top of the box and the two arcuate members are bent over the top of the stone to retain it in the setting. Also, the method of stamping the blank that is suited for bending into the setting described above. Finally, forming a chain using a plurality of settings and gemstones that can be further incorporated into a finished piece of jewelry.

Granted

WO03088780A2: GEMSTONE

Assignee: YASKIL, Hadar; HERTZMAN, Kobe

Publication: 30/10/2003

Filed: 14/04/2003

Priority: 15/04/2002

Contents: A gemstone includes four equal concave portions, a table, a girdle, an upper portion and a lower portion. The upper portion has two stairs. The lower portion includes four surfaces which are broken by eight additional surfaces. Each of the eight surfaces is broken by another two surfaces.

Application

WTOCD

WO03089691A1: COMPREHENSIVE CLEANING DEVICE FOR JEWELRY AND THE LIKE

Assignee: VISIONS IN TECHNOLOGY, INC

Publication: 30/10/2003

Filed: 16/04/2003

Priority: 16/04/2002

Contents: A device is disclosed having an electro-cleaning and steam cleaning portion. A tank is supported within the electro-cleaning portion and is connectable to an electric potential. An insert with a support surface for jewelry is extended into the tank and positioned to avoid direct electrical contact between a conductive engagement means and the tank. There is a water reservoir and a steam nozzle at the steam cleaning portion. These components enable an electrical current to flow through jewelry being cleaned, the engagement means, the conductive fluid and the tank when the engagement means is connected to a conductor and the tank.

Application

GB2387312A1: Jewellery setting

Assignee: JEWELRY SECURITY LLC

Publication: 15/10/2003

Filed: 19/02/2002

Priority: 22/02/2001

Contents: The invention provides a setting for a precious stone comprising a support for a precious stone; contact means for establishing a contact between the support and a stone within the support; a detector for detecting a break in the contact; and an emitter for emitting a signal on detection of the break in the contact. The setting provides a means of alerting wearers of an item of jewellery that the precious stone is loose within its support.

Application

US6635309: Process for the color enhancement of gemstones

Assignee: none

Publication: 21/10/2003

Filed: 12/03/2001

Contents: In accordance with the present invention, there are provided methods for enhancing the color of gemstones by subjecting a combination of a gemstone and at least one finely divided form of a selected treating agent including the element copper to a temperature in the range of about 700° C. up to about 1000° C., for a time period in the range of about 3 hours up to about 600 hours, under conditions suitable to enhance the color of the gemstone, wherein said gemstone is topaz or sapphire and the enhanced color lies in the color spectrum of light yellow to red.

Granted

US6634184: Prongless gemstone setting

Assignee: Hord Crystal Corporation

Publication: 21/10/2003

Filed: 12/06/2002

Contents: A prongless setting for mounting a gemstone and a method of manufacturing the same.

Granted

WTOCD

USD480983: Precious stone design

Assignee: Rosy Blue, N.V.

Publication: 21/10/2003

Filed: 02/10/2002

Contents: Design. Round cut.

Granted

**BE1014442AD: WERKWIJZE OM DE RUWHEID VAN EEN EDELSTEEN TE BEP-
ALEN EN OPSTELLING DIE ZULKE WERKWIJZE TOEPAST.**

Assignee: LENS DIAMOND INDUSTRIES NAAMLOZE VENNOOTSCHAP

Publication: 07/10/2003

Filed: 30/10/2001

Contents: De uitvinding heeft betrekking op een werkwijze om de ruwheid of zoeting van een geslepen oppervlak van een edelsteen, bijvoorbeeld een diamant, te onderzoeken of te bepalen.

Granted under art. 2

**US20030186633A1: Precision material positioning and shaping apparatus,
system, and method thereof**

Assignee: none

Publication: 02/10/2003

Filed: 31/10/2002

Contents: An apparatus, system, and method thereof for precision material positioning and precision shaping of materials. The apparatus includes positioning device which includes allows precision rotatable positioning of a group of material shaping devices, such as grinding wheels and the like.

Application

**US20030186637A1: Material positioning and shaping system, apparatus,
and method thereof**

Assignee: none

Publication: 02/10/2003

Filed: 27/03/2002

Contents: An apparatus, system, and method thereof for material positioning and shaping. The apparatus includes a two-section positioning system which includes a guide and follower thereon for positioning along a path.

Application

US20030188551A1: High yield diamond

Assignee: none

Publication: 09/10/2003

Filed: 15/04/2003

Contents: A high yield diamond includes a table lying in a table plane, a girdle lying in a girdle plane that is substantially parallel to the table plane, main crown brilliantteering facets lying between the table and the girdle at an angle between 23° and 40°, and a pavilion lying between the girdle and a culet. The pavilion includes upper pavilion brilliantteering facets lying between the girdle and a first pavilion rib line, and lower pavilion brilliantteering facets lying between the rib line and the culet. The upper pavilion facets lie at an angle of between 45° and 80° relative to the girdle plane. The lower pavilion facets lie at an angle of between 35° and 45° relative to the girdle plane. The rib line lies at a point between one-fifth and four-fifths of the distance between the girdle and the culet.

Remarks: is a continuation of US2000000669137

Application

WTOCD

USD480097: Ideal cut diamond symmetry and proportion viewer

Assignee: none

Publication: 30/09/2003

Filed: 30/04/2002

Contents: Design. Diamond viewer.

Granted

US20030192346A1: Gemstone cut

Assignee: none

Publication: 16/10/2003

Filed: 11/04/2002

Contents: The crown includes an octagonal table, which is surrounded by eight triangular star facets. Eight table bezels are disposed in-between the star facets and eight mid-bezels are disposed in-between the table bezels. Furthermore, the gemstone's pavilion has eight concentrically arranged culet pavilion facets, a girdle pavilion facet and a bottom small break facet that are disposed in-between the culet pavilion facets. The gemstone's girdle has eight left top half facets and eight right top half facets (located in-between the girdle bezels of the crown), and eight left bottom half facets and eight right bottom half facets (disposed in-between the girdle pavilion facets and bottom small break facets).

Application

WO03083186A2: A NOVEL LASER DIAMOND BLOCKING MACHINE FOR FACETING THE BOTTOM OF THE DIAMOND

Assignee: none

Publication: 09/10/2003

Filed: 06/02/2003

Priority: 03/04/2002

Contents: A laser diamond blocking machine is used to facet the bottom of the diamond. Mechanically this machine consists of four units, namely sliding unit, lifting unit, revolving unit, indexing unit. Sliding unit is for horizontal movement of 22 to 26 mm of die. The lifting unit is for the horizontal movement of die upto 15 mm. Indexing unit changes facet automatically as per number of facet selected through control panel. Motor changes the facet. For on-line faceting LEDs are there in the machine, one LED for each facet. This is time-saving mass processing.

Application

US20030192347A1: Gemstone

Assignee: none

Publication: 16/10/2003

Filed: 15/04/2002

Contents: A gemstone includes four equal concave portions, a table, a girdle, an upper portion and a lower portion. The upper portion has two stairs. The lower portion includes four surfaces which are broken by eight additional surfaces. Each of the eight surfaces is broken by another two surfaces.

Application

WTOCD

US20030194052A1: Methods for identification and verification

Assignee: none

Publication: 16/10/2003

Filed: 12/04/2002

Contents: Apparatus and methods in which one or more elemental taggants that are intrinsically located-or extrinsically placed-in an object are detected by x-ray fluorescence analysis to identify or track/trace the object or its point of manufacture, as well as to establish the origin of objects and their authenticity.

Application

US20030194951A1: Apparatus and methods for gemstone and mineral sphere grinding and polishing

Assignee: none

Publication: 16/10/2003

Filed: 11/04/2002

Contents: Apparatus and methods for forming a generally spherical object from a workpiece are disclosed. The inventive apparatus and methods advantageously allows gravity to naturally force the surface treating members toward the workpiece, thereby improving the engagement of the surface treating members toward the workpiece.

Application

US6624385: Method for marking gemstones with a unique micro discrete indicia

Assignee: Eastman Kodak Company

Publication: 23/09/2003

Filed: 21/12/2001

Contents: A method for providing and reading micro-discrete indicia on a gemstone using near-field optics.

Granted

US20030181147A1: Method for cutting natural and/or man-made diamonds

Assignee: none

Publication: 25/09/2003

Filed: 15/04/2003

Contents: A method for producing a diamond includes forming a table lying in a table plane; forming crown facets that are oriented at an angle of between 26° and 35° relative to the table plane; forming upper pavilion (UP) facets below the crown facets at an angle of between 45° and 80° relative to a girdle plane lying between bottoms of the crown facets and tops of the UP facets; and forming a set of lower pavilion (LP) facets between bottoms of the UP facets and the culet at an angle of between 38° and 44° relative to the girdle plane. The UP and LP facets form a rib line positioned between one-fifth and four-fifths the distance between the girdle plane and the culet, such that the UP facets extend between 20% and 80% of the distance between the girdle plane and the culet.

Application

WTOCD

US20030177753A1: Decorative, diamond-cut jewelry surface

Assignee: none

Publication: 25/09/2003

Filed: 21/03/2002

Contents: Jewelry pieces, for example, earrings, pendants, rings and the like, made of metal such as gold or silver and the like, with special surface texturing to improve and enhance the light-reflecting characteristics of the jewelry.

Application

US20030177789A1: Piece of jewelry with stone

Assignee: none

Publication: 25/09/2003

Filed: 07/02/2003

Contents: A piece of jewelry includes a foundation for mounting at least one stone. The stone is at least regionally inserted in a depression of the foundation of the piece of jewelry. The stone is movably arranged in the region of the foundation and the securing element is arranged at a distance from the stone.

Application

US6627168: Method for growing diamond and cubic boron nitride crystals

Assignee: Showa Denko Kabushiki Kaisha

Publication: 30/09/2003

Filed: 02/10/2000

Contents: An object of the present invention is to provide a method for producing diamond and cubic boron nitride crystals having excellent mechanical strength and high regularity in particle size with high productivity, wherein seed crystals are efficiently placed in a regular pattern on a supporting plate or a raw material plate.

Granted

USD480012: Gemstone

Assignee: DeBeers LV Limited

Publication: 30/09/2003

Filed: 25/04/2002

Contents: Design. Cut cornered square cut.

Granted

USD480013: Gemstone

Assignee: none

Publication: 30/09/2003

Filed: 03/06/2002

Contents: Design. Round cut, traditional bottom.

Granted

WTOCD

US6615611: High yield diamond

Assignee: none

Publication: 09/09/2003

Filed: 26/09/2000

Contents: A high yield diamond and method of producing same. The diamond includes a plurality of main crown facets adjacent a table lying at an angle of between 23° and 40° relative to the table, a girdle, a plurality of upper pavilion facets below the girdle lying at an angle of between 45° and 80° relative to the girdle plane, and a plurality of lower pavilion facets formed between the upper pavilion facets and the culet. The upper pavilion facets extend from between one fifth to four fifths the height of the pavilion. The method is directed to a process for blocking the pavilion of the diamond prior to performing any brilliantteering steps.

Granted

US6616051: Apparatus for and method for marking objects, objects marked thereby and apparatus and method of reading marked objects

Assignee: Authentic Ltd.

Publication: 09/09/2003

Filed: 28/06/2000

Contents: An apparatus for marking objects is disclosed. The apparatus comprises (a) a source device including a mother isotope for emitting daughter isotopes by radioactive decay; preferably (b) a positioning mechanism for positioning an object in close proximity to the source device; and (c) a patterning mechanism for restricting implantation of the daughter isotopes into a surface of the object, so as to create a detectable pattern of the daughter isotopes on the object.

Granted

USD479481: Precious stone

Assignee: Diamintangibles International, Ltd.

Publication: 09/09/2003

Filed: 12/12/2001

Priority: 12/06/2001

Contents: Design. Round cut, no halves, round table.

Granted

USD479148: Diamond

Assignee: M. Fabrikant & Sons, Ltd.

Publication: 02/09/2003

Filed: 19/09/2002

Contents: Design. Cut Cornered Square Cut.

Remarks: Partial Design: bottom facets + girdle.

Granted

USD479693: Precious stone design

Assignee: Rosy Blue NV

Publication: 16/09/2003

Filed: 03/10/2002

Contents: Design. Round Brilliant derivative.

Granted

WTOCD

WO03070852A1: COATED DIAMOND PARTICLES

Assignee: ELEMENT SIX (PTY) LTD

Publication: 28/08/2003

Filed: 13/02/2003

Priority: 20/02/2002

Contents: A method of producing coated diamond particles includes the steps of providing a combination of a transition metal selected from zirconium, hafnium, niobium and tantalum, an activation metal and uncoated diamond particles, and heat treating the combination in a non-oxidising atmosphere to cause the activation metal to bond to the diamond particles and the transition metal to form a carbide coating on the diamond particles.

Application

WO03070043A2: GEMSTONE IMAGING SYSTEM AND APPARATUS AND METHOD OF USE THEREOF

Assignee: DIALIT LTD.; PORAT, Zvi

Publication: 28/08/2003

Filed: 19/02/2003

Priority: 19/02/2002

Contents: The present invention is of a gemstone imaging apparatus and system and method of use of the system in the measurement and defining of processing parameters for gemstones and diamonds while providing enhanced accuracy in measurements and in the end-product produced, than known gemstone imaging devices and methods.

Application

WO03070441A1: A NOVEL LASER DIAMOND SAWING MACHINE

Assignee: PATEL, Arvindbhai, Lavjibhai

Publication: 28/08/2003

Filed: 14/10/2002

Priority: 21/02/2002

Contents: This machine consists of Laser source, CNC Interface, Beam delivery system, RF Q - Switch driver, Chiller unit, CCTV & CCD camera, Power supply unit, Servo Stabilizer and Computer unit. The sawing occurs automatically by commands of computer. To avoid errors, simultaneously the process is seen on the CCTV. By this twin side sawing system 6 - 9 dies containing diamond can be processed.

Application

US6612906: Vibratory material removal system and method

Assignee: none

Publication: 02/09/2003

Filed: 22/10/2001

Priority: 22/10/2001

Contents: Gemstone marking system. Material is removed from objects to be marked by applying apertured masks having cutouts arranged in a pattern on the objects, applying a liquid mixture of abrasive particles over the masks, and then ultrasonically vibrating the mixture to propel the abrasive particles through the cutouts to transfer the pattern to the objects.

Granted

WTOCD

EP1218095B1: GROWTH OF DIAMOND CLUSTERS

Assignee: ELEMENT SIX (PTY) LTD

Publication: 03/09/2003

Filed: 04/10/2000

Priority: 05/10/1999

Contents: According to the present invention, a diamond cluster comprises a core and an overgrown region containing a plurality of diamond crystallites extending outwards from the core, the majority of the crystallites having a cross-sectional area which increases as the distance of the crystallite from the core increases. The size of the diamond clusters which are crystalline can vary over a wide range, but will typically have a size in the range 50 microns to 1mm.

Granted

US20030163938A1: Jewelry design selection device and method thereof

Assignee: none

Publication: 04/09/2003

Filed: 01/03/2002

Contents: A jewelry design selection device and a method thereof, wherein a user may select a setting from a plurality of settings and view a plurality of stone configurations therein, or may select a stone and view a plurality of setting configurations therefor, thereby assisting the user with design selection and, in the preferred embodiment, creating a record and/or order of the same.

Application

RU2203795: APPARATUS FOR WORKING FACES OF DIAMOND WITH COMPLEX MORPHOLOGICAL SHAPE

Assignee: KRISTALL; SMOLENSKOE GUP

Publication: 10/05/2003

Filed: 14/06/2001

Contents: Working precious stones, namely faceting diamonds to brilliants. In order to automatize process for working diamonds with complex morphological shape, there is limb with scale on head of faceting device for indicating grinding angle.

Application

US20030154741A1: Cut design of diamonds providing plenty of visual-perceptible reflection for ornamental use and observation method thereof

Assignee: none

Publication: 21/08/2003

Filed: 23/01/2003

Priority: 19/02/2002

Contents: A cut design of an ornamental diamond and an observation method of the diamond which an observer can perceive a more beauty, are disclosed.

Application

EP1336350A1: Cut design of diamonds providing plenty of visual-perceptible reflection for ornamental use and observation method thereof

Assignee: Hohoemi Brains, Inc.

Publication: 20/08/2003

Filed: 07/02/2003

Priority: 19/02/2002

Contents: see US20030154741A1.

Application

WTOCD

US20030154913A1: High pressure and high temperature apparatus

Assignee: none

Publication: 21/08/2003

Filed: 20/02/2003

Contents: A design for high pressure/high temperature apparatus and reaction cell to achieve ~30 GPa pressure in ~1 cm volume and ~100 GPa pressure in ~1 mm volumes and 20-5000° C. temperatures in a static regime.

Application

US20030154740A1: RING AND MOUNTING FOR A PLURALITY OF GEM-STONES

Assignee: Arnell, Mr.Edward Roy

Publication: 21/08/2003

Filed: 18/02/2003

Contents: A first gemstone forms a keystone mounted in compression sandwiched between the free ends of the first pair of upstanding flexible arms. A second pair of upstanding arms are mounted at their base ends to the pair of shanks so as to be disposed, one on each shank, on opposite sides of the first pair of upstanding flexible arms.

Application

WO03065837A1: COMBINED GEMSTONE

Assignee: YASKIL, Hadar; HERTZMAN, Koby

Publication: 14/08/2003

Filed: 06/02/2003

Priority: 07/02/2002

Contents: A gemstone arrangement is provided which includes a pair of individual pear shaped stones abutting one another along a connecting facet to form a heart shape.

Application

EP0780153B1: Diamond synthesis

Assignee: Element Six (PTY) Ltd

Publication: 27/08/2003

Filed: 18/12/1996

Priority: 21/12/1995

Contents: A method of producing diamond crystal growth on a seed crystal is provided. The method includes the steps of providing a seed crystal containing at least one twin plane and re-entrant growth surfaces associated therewith and applying high temperature/high pressure synthesis conditions to the seed crystal to cause diamond growth to occur preferentially on the re-entrant surfaces.

Granted

WO03068471A1: LASER MACHINE FOR EXAMINATION, PLANNING AND MARKING RAW DIAMOND

Assignee: PATEL, Arvindbhai, Lavjibhai

Publication: 21/08/2003

Filed: 01/10/2002

Priority: 13/02/2002

Contents: Laser machine for examination, planning and marking raw diamond comprising of laser scanning device, 3-D scanning system, specific die, marking device, electronic assembly and computer program for accessing the weight of diamond in carat and availability of number(s) and size of diamond(s) in raw diamond.

Application

WTOCD

USD478837: Diamond

Assignee: My Diamond Place, Ltd
Publication: 26/08/2003
Filed: 02/07/2002
Contents: Design. Octagonal cut.
Granted

WO03063654A1: A COMPACT DEVICE FOR SORTING, PACKAGING, DISPLAY AND STORAGE OF GEMSTONES

Assignee: MASTERS, Christopher, Stuart
Publication: 07/08/2003
Filed: 31/01/2001
Contents: A series of compact devices for packaging, storage and the face-up display of sorted lots of small gemstones comprises a two-part plastic package enclosing different models of a plastic tray. Incorporated into the moulding of the tray are staggered rows of faceted indentations arranged in regular patterns of 'round' numbers.
Application

USD478528: Precious stone design

Assignee: Rosy Blue, N.V.
Publication: 19/08/2003
Filed: 16/01/2002
Contents: Design. Princess cut derivative.
Granted

USD478529: Gemstone

Assignee: none
Publication: 19/08/2003
Filed: 31/10/2002
Priority: 17/05/2002
Contents: Design. Brilliant cut derivative.
Granted

EP1332352A1: SYSTEMS AND METHODS FOR EVALUATING THE APPEARANCE OF A GEMSTONE

Assignee: Gemological Institute of America, Inc.
Publication: 06/08/2003
Filed: 11/10/2001
Priority: 12/10/2000
Contents: This application presents a three-dimensional mathematical model to study the interaction of light with a fully faceted, colorless, symmetrical round-brilliant-cut diamond. The model generates images and a numerical measurement of the optical efficiency of the round brilliant-called DCLR - which approximates overall fire. DCLR values change with variations in cut proportions, in particular crown angle, pavilion angle, table size, star facet length, culet size, and lower girdle facet length.
Application

WTOCD

WO03062942A2: A METHOD FOR DIGITAL COLOR GRADING OF GEMS AND COMMUNICATION THEREOF

Assignee: SEVDERMISH, Menahem

Publication: 31/07/2003

Filed: 31/12/2002

Priority: 25/01/2002

Contents: A computer based expert system and method of grading gems by their inherent properties of shape and color, including hue-tone-saturation. Each of the properties is variable over a practical range derived from a data-base; the database prepared by digital methods from real gems. The grading is conducted interactively on-screen by visual comparison to the image of a real target gem, and the result, translated into alpha-numeric code, can be communicated by phone or via the Internet to any other user of the same system and data-base.

Application

US20030145623A1: Combined gemstone

Assignee: none

Publication: 07/08/2003

Filed: 06/02/2003

Contents: A gemstone arrangement is provided which includes a pair of individual pear shaped stones abutting one another along a connecting facet to form a heart shape.

Application

US6604382: New-cut diamond shape

Assignee: none

Publication: 12/08/2003

Filed: 15/03/2002

Contents: Diamond cutting method and a diamond shape or proportion giving an increased brightness and different brilliant colors to the cut jewel.

Granted

USD478296: Combined two stone oval gemstone arrangement with setting

Assignee: L.I.D. Ltd.

Publication: 12/08/2003

Filed: 20/12/2001

Contents: Design. The ornamental design for a combined two stone oval gemstone arrangement with setting.

Granted

JP2003111606A2: COLORED DIAMOND

Assignee: SOPHIA AVENIR:KK

Publication: 15/04/2003

Filed: 09/10/2001

Contents: Proportions to provide a high value-added colored diamond perfectly exhibiting brilliancy and showing a heart and arrow phenomenon without using a special device.

Application

WTOCD

JP2003062683A2: METHOD FOR MACHINING HARD MATERIAL AND HARD MATERIAL COMPONENT MACHINED THEREBY

Assignee: SUMITOMO ELECTRIC IND LTD

Publication: 05/03/2003

Filed: 07/02/2002

Contents: Upon cutting a super hard material, damage caused by the heat during cutting is prevented by ejecting cooling water in the vicinity of the part to be machined. Simultaneously, excellent machined surface is obtained with reduced taper.
Application

JP2003068720A2: ETCHING APPARATUS FOR DIAMOND

Assignee: SUMITOMO ELECTRIC IND LTD

Publication: 07/03/2003

Filed: 29/08/2001

Contents: The present invention relates to an apparatus for diamond, in which high frequency discharge is caused to occur in a chamber and etching is carried out on a diamond substrate with reactive ions produced by the high frequency discharge.
Application

USD476918: Diamond

Assignee: none

Publication: 08/07/2003

Filed: 29/03/2002

Contents: Design, brilliant derivative, 10 folded symmetry
Granted

USD477789: Precious stone

Assignee: Tarshish Sulimani Ltd.

Publication: 29/07/2003

Filed: 05/03/2002

Contents: Design, brilliant derivative
Granted

US6589333: Method for the manufacture of a substrate, substrate manufactured in accordance with this method, carrier wafer and diamond jewel

Assignee: Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V.

Publication: 08/07/2003

Filed: 18/09/2000

Contents: A method is described for the production of a suitable substrate for the subsequent growth of a mono-crystalline diamond layer.
Granted

WTOCD

US6592436: Grinding and polishing tool for diamond, method for polishing diamond, and polished diamond, single crystal diamond and single diamond compact obtained thereby

Assignee: Japan as represented by Director General of Agency of Industrial Science and Technology; Applied Diamond Inc.

Publication: 15/07/2003

Filed: 04/05/2000

Contents: The tool and method provide a polishing operation which is easy to accomplish, provides stable polishing quality, and provides decreased costs while maintaining stable grinder performance. The grinder is formed of a main component which is an intermetallic compound consisting of one kind or more of elements selected from the group of Al, Cr, Mn, Fe, Co, Ni, Cu, Ru, Rh, Pd, Os, Ir and Pt and one kind or more of elements selected from the group of Ti, V, Zr, Nb, Mo, Hf, Ta and W.
Granted

US6593543: Gemstone marking system and method

Assignee: none

Publication: 15/07/2003

Filed: 19/07/2001

Contents: Diamonds are marked by applying apertured stencils bearing identifying indicia to the girdles, applying a fusible coating material over the apertured stencils, and then heating the coating material to fuse the material on the girdles.
Granted

US20030143150A1: High pressure/high temperature production of colorless and fancy-colored diamonds

Assignee: GENERAL ELECTRIC COMPANY

Publication: 31/07/2003

Filed: 18/01/2003

Contents: The present invention is directed to a method for changing the color of colored natural diamonds.

Remarks: This application claims benefit under 35 U.S.C. § 120 to U.S. application Ser. No. 09/162,206, filed Sep. 28, 1998, and U.S. application Ser. No. 08/966,642, filed Nov. 10, 1997

Application

WO03053632A2: SYSTEM AND METHOD FOR AUTOMATIC GEMSTONE POLISHING

Assignee: DIALIT LTD.

Publication: 03/07/2003

Filed: 12/12/2002

Priority: 13/12/2001

Contents: The present invention is of a polishing system and method, which preferably provide a combination of vertical and angular displacement to a polishing wheel, comprising a tang, a polishing wheel, a vertical displacement element, attached to said tang, for vertically displacing said tang in relation to said polishing wheel; and an angular displacement element, attached to said tang, for angularly displacing said tang in relation to said polishing wheel.

Application

WTOCD

WO03053715A2: ANTI-FRAUD APPARATUS AND METHOD FOR PROTECTING VALUABLES

Assignee: BOLES, Julian

Publication: 03/07/2003

Filed: 20/12/2002

Contents: An arrangement for certifying and checking gem stones and other valuables comprises an electron microscope controlled by a computer and arranged to acquire digitised electron micrographs of characteristic regions of the gem stone or other valuable, particularly the culet or girdle which are typically highly irregular and therefore highly characteristic of individual stones. The digitised electron micrographs are encrypted and written to an RFID which can be embedded in a plastics certificate of in some cases a concealed on the valuable itself.

Application

WO03052174A2: BORON DOPED DIAMOND

Assignee: ELEMENT SIX LIMITED; HOOPER, Anthony, Robert, Lloyd

Publication: 26/06/2003

Filed: 13/12/2002

Priority: 14/12/2001

Contents: A layer of single crystal boron doped diamond produced by CVD and having a total boron concentration which is uniform. The layer is formed from a single growth sector, or has a thickness exceeding 100 μm , or has a volume exceeding 1 mm^3 , or a combination of such characteristics.

Application

WO03052177A1: COLOURED DIAMOND

Assignee: ELEMENT SIX LIMITED; HOOPER, Anthony, Robert, Lloyd

Publication: 26/06/2003

Filed: 13/12/2002

Priority: 14/12/2001

Contents: A diamond layer of single crystal CVD diamond which is coloured, preferably which has a fancy colour, and which has a thickness of greater than 1 mm.

Application

US20030121897A1: Method for marking gemstones with a unique micro discrete indicia

Assignee: Eastman Kodak Company

Publication: 03/07/2003

Filed: 21/12/2001

Contents: A method for providing and reading micro-discrete indicia on a gemstone using near-field optics.

Application

WTOCD

US6585565: Grinding and polishing tool for diamond, method for polishing diamond, and polished diamond, single crystal diamond and single diamond compact obtained thereby

Assignee: Agency of Industrial Science and Technology; Applied Diamond Inc.

Publication: 01/07/2003

Filed: 25/07/2002

Contents: A tool for grinding and polishing diamond and a method for polishing diamond in which a single crystal diamond, a diamond thin film, a sintered diamond compact and the like can be polished at low temperatures without causing cracks, fractures or degradation in quality therein. The tool and method provide a polishing operation which is easy to accomplish, provides stable polishing quality, and provides decreased costs while maintaining stable grinder performance. The grinder is formed of a main component which is an intermetallic compound consisting of one kind or more of elements selected from the group of Al, Cr, Mn, Fe, Co, Ni, Cu, Ru, Rh, Pd, Os, Ir and Pt and one kind or more of elements selected from the group of Ti, V, Zr, Nb, Mo, Hf, Ta and W.

Granted

US6584804: Secure display setting for a gemstone

Assignee: Volare, LLC

Publication: 01/07/2003

Filed: 16/01/2001

Contents: A secure display setting and a method of doing business using the secure display setting are provided. A display setting including a base portion with a lower barrel may be lockingly secured to an upper portion including an upper barrel and prongs with a gemstone located therebetween. A spring is used to bias the gemstone against the prongs.

Granted

US20030124299A1: Method of coloring cut gemstones

Assignee: none

Publication: 03/07/2003

Filed: 12/12/2002

Contents: A method of coloring cut gemstones by introducing metals or metal oxides into a surface layer by means of heat treatment, wherein in the heat treatment the gemstones are laid on a solid plate and the metals or metal oxides form a substantial constituent of the plate.

Application

WTOCD

US20030112422A1: Apparatus for generating data for determining a property of a gemstone and methods and computer programs for determining a property of a gemstone

Assignee: none

Publication: 19/06/2003

Filed: 25/03/2002

Priority: 13/12/2001

Contents: An apparatus for generating data for use in determining a property of a gemstone, such as a cut diamond, the apparatus comprising:

a support structure for supporting a gemstone placed at an observation position, the support structure being arranged such that, if the gemstone has an axis of symmetry, the gemstone is supportable such that the axis of symmetry is parallel to an axis X passing through the observation position;

illumination means arranged to illuminate a gemstone so placed with a spatially varied light pattern;

rotation means arranged to cause relative rotation between the light pattern and the support structure generally about the axis X;

a camera arranged to capture, at each of a plurality of rotational positions, an image of light returned by the gemstone and to output said images as image data.

Application

EP1319942A1: Apparatus for generating data for determining a property of a gemstone and methods for determining a property of a gemstone

Assignee: Overseas Diamonds N.V.

Publication: 18/06/2003

Filed: 13/12/2001

Priority: 13/12/2001

Contents: cfr. US20030112422A1

Application

US6582513: System and method for producing synthetic diamond

Assignee: Apollo Diamond, Inc.

Publication: 24/06/2003

Filed: 14/05/1999

Contents: Synthetic monocrystalline diamond compositions having one or more monocrystalline diamond layers formed by chemical vapor deposition, the layers including one or more layers having an increased concentration of one or more impurities (such as boron and/or isotopes of carbon), as compared to other layers or comparable layers without such impurities. Such compositions provide an improved combination of properties, including color, strength, velocity of sound, electrical conductivity, and control of defects.

Granted

USD476258: Diamond

Assignee: none

Publication: 24/06/2003

Filed: 17/04/2002

Contents: octagonal cut

Granted

WTOCD

USD476257: Precious stone design

Assignee: Rosy Blue, N.V.
Publication: 24/06/2003
Filed: 12/03/2002
Contents: brilliant derivative
Granted

USD476256: Precious stone

Assignee: My Diamond Place, Ltd.
Publication: 24/06/2003
Filed: 24/12/2001
Contents: square cut
Granted

US20030120613A1: Customizing objects and materials with digital identifiers

Assignee: none
Publication: 26/06/2003
Filed: 28/01/2003
Contents: A method and apparatus for marking, identifying, customizing, and tracking objects and mined materials such as gemstones and precious metals. An initial digital identifier, such as a matrix, is encoded with source data. The initial digital identifier is decoded, and the source data is recorded to a database. The gemstone passes from between parties through one or more transactions. Transactional data is also written to the database. After a series of transactions, the rough gemstone is cut into one or more finished gemstones. The quality attributes of the polished gemstones are analyzed and recorded to the database. Based on the database information, a unique identifier is generated for each polished gemstone.
Application

EP1321305A2: Method for making gemstones with a unique micro discrete indicia

Assignee: EASTMAN KODAK COMPANY
Publication: 25/06/2003
Filed: 09/12/2002
Contents: In accordance with one aspect of the present invention there is provided a method for providing micro-discrete indicia on a gemstone, comprising the steps of: providing a gemstone; selecting an area on the gemstone for placement of a micro-discrete indicia; and forming the micro-discrete indicia on the gemstone using near-field optics. In accordance with another aspect of the present invention there is provided a method for reading a micro-discrete indicia on a gemstone, comprising the steps of: locating the micro-discrete indicia on the gemstone; and reading the micro-discrete indicia using near-field optics.
Application

Deposits Published Under the 1960 Act

DM/062366: Precious stone / Pierre précieuse
Deposit date: 24.12.2002
Assignee: OLLECH WOLF
Contents: octagonal cut

WTOCD

USD475650: Brilliant-cut diamond

Assignee: Samuel Aaron, Inc.

Publication: 10/06/2003

Filed: 22/02/2002

Contents: Brilliant derivative

Granted

US20030107722A1: Process for measuring the surface of a polished precious stone

Assignee: none

Publication: 12/06/2003

Filed: 22/11/2002

Contents: Process for the measurement of the surface of a polished precious stone, wherein firstly the position of at least some of the flat facet surfaces of the stone is measured in space, in particular by rotating the stone in front of a light source and examination of the shadow cast by the stone, and the facet surface is then observed under direct light.

Application

US6578380: Hexagonal brilliant cut diamond

Assignee: Diaco

Publication: 17/06/2003

Filed: 24/01/2002

Contents: A gemstone having a crown and a pavilion, spaced by a girdle, has an overall hexagon configuration, the signature of the stone. Facets are cut in the crown of the stone defining an hexagon table and an hexagram in the crown. Six trapezoids frame the hexagram and high light the signature of the stone. Facets are cut in the pavilion of the stone so that the hexagonal signature of the stone is maintained. A sharp, six pointed geometric figure is formed by six trapezoid facets cut in the pavilion of the stone, each trapezoid extends from the apex of the stone, toward the girdle. Pairs of triangle facets cut in conjunction with the trapezoids soften the sharp, six pointed geometric figure. The hexagonal figure on the pavilion which is symmetrical with the hexagram in the crown and with the signature of the stone.

Remarks: Utility patent

Granted

WO03045184A1: COLLET FOR PRECIOUS STONES

Assignee: STILNOVO S.R.L.

Publication: 17/06/2003

Filed: 26/11/2002

Contents: A collet system for embedding and clamping precious and non-precious stones on a support to create a jewel where the stone is mounted, characterised in that the collet is made up of a straight or round polygonal closed contour having various projections towards the outside and the inside alternatively; in that vertical grooves are made in said projections towards the inside from bottom to top, such grooves not reaching the upper face of the collet or having a narrow dimension, thus creating a shape or dimensional shoulder towards the tops; in that such grooves have to precisely hold and clamp a cylindrical pin having dimensions matching the grooves to clamp the stone.

Application

WTOCD

US6568213: Adjustable jewelry bezel setting

Assignee: Alfred Butler, Inc.

Publication: 27/05/2003

Filed: 21/12/2000

Contents: A bezel setting for a ring or other jewelry item is provided. The bezel setting is mounted along the jewelry item and includes a first bezel element and a facing second bezel element for defining an opening therebetween in which a jewelry stone is received. The bezel elements are movable with respect to one another in order to be able to selectively adjust the distance between the bezel elements, and thus the size of the opening. As a result, the bezel setting can accommodate jewelry stones of varying size.

Granted

USD474995: Precious stone design

Assignee: Rosy Blue, N.V.

Publication: 27/05/2003

Filed: 11/06/2002

Contents: Round brilliant derivative

Granted

USD474992: Three-stone, heart-shaped setting for diamonds and gemstones

Assignee: DiamLink Jewelry, Inc.

Publication: 27/05/2003

Filed: 28/11/2001

Contents: The ornamental design for a three-stone, heart-shaped setting for diamonds and gemstones, as shown and described.

Remarks: Design patent

Granted

USD475318: Gemstone

Assignee: none

Publication: 03/06/2003

Filed: 01/07/2002

Contents: cut cornered square cut

Granted

USD475319: Setting for gemstone or other type of jewelry

Assignee: Hairdiamond, Inc.

Publication: 03/06/2003

Filed: 05/06/2000

Contents: design

Granted

WTOCD

US6571578: Reversible ornamental jewelry article

Assignee: none

Publication: 03/06/2003

Filed: 22/06/2001

Contents: A reversible ornamental article of jewelry having a plurality of ornamental links hinge ably secured to one another to form a flexible strand of jewelry, which can be in the form of a necklace or bracelet. The geometric configurations of the links in one planar surface differ from one another and also differ from one another in the opposite or reverse planar surface so that the jewelry article can be worn to display the ornamental geometric configurations in either planar surface.

Granted

US20030101747A1: Prongless gemstone setting

Assignee: none

Publication: 05/06/2003

Filed: 12/06/2002

Contents: The present invention provides a prongless setting for mounting a gemstone and a method of manufacturing the same. The setting includes a base that is formed from a flat piece of metal, which is bent into the shape of a box having an open top. Two arcuate members are provided along the top edges of the box. A gemstone is placed into the open top of the box and the two arcuate members are bent over the top of the stone to retain it in the setting.

Application

US20030085983A1: Flame marking system and method

Assignee: none

Publication: 08/05/2003

Filed: 16/05/2001

Contents: Diamonds are marked by applying apertured tapes bearing identifying indicia to the girdles, applying a flammable layer over the apertured tapes, and then igniting the flammable layer to burn the indicia into the girdles. Preferably, the flammable layer is prepackaged within the apertured tapes.

Application

US6564583: Jewelry with girdle-grooved stone

Assignee: none

Publication: 20/05/2003

Filed: 24/04/2001

Contents: Jewelry includes a stone which defines a crown, a pavilion and a girdle therebetween, the girdle having a 360° peripheral groove crown thereinto. A flexible wire has a first portion at least partially disposed within the groove and extending at least 90° (preferably at least 180°) about the stone, the mounting and the wire being secured together, thereby to secure together the stone and the mounting.

Granted

WTOCD

US6567156: Apparatus and method for examining the shape of gemstones

Assignee: Sarin Technologies Ltd.

Publication: 20/05/2003

Filed: 31/08/2000

Contents: A method for examining a gemstone includes the steps of coating the gemstone with a removable diffusing coating and determining the silhouette of the gemstone in three dimensions. The method further includes performing structured light triangulation by using laser light to obtain an image of the surface of the gemstone, the gemstone being transparent and/or reflective to the laser light in the absence of the coating. The method further includes the step of using the silhouette in conjunction with the image to determine the location of any recesses on the surface.
Granted

USD474709: Precious stone design

Assignee: Rosy Blue, N.V.

Publication: 20/05/2003

Filed: 12/03/2002

Contents: Brilliant derivative

Granted

USD473814: Diamond

Assignee: none

Publication: 29/04/2003

Filed: 31/01/2002

Contents: Octagonal cut

Granted

USD474711: Diamond

Assignee: My Diamond Place, Ltd.

Publication: 20/05/2003

Filed: 16/05/2002

Contents: Cushion derivative

Granted

USD474710: Diamond

Assignee: Diamintangibles International, Ltd.

Publication: 20/05/2003

Filed: 16/05/2002

Contents: Marquise derivative

Granted

USD474419: Diamond

Assignee: Rothman; Glenn

Publication: 13/05/2003

Filed: 10/04/2002

Contents: Cut cornered square cut

Granted

USD473816: Multi-stone setting for diamonds and gemstones

Assignee: Orion Diamond, Inc.

Publication: 29/04/2003

Filed: 09/02/2000

Contents: Design

Granted

US6553786: Jewelry design employing fluorescent diamonds to create a hidden message

Assignee: Kiwiat, Inc.

Publication: 29/04/2003

Filed: 18/10/1999

Contents: A jewelry design including a mounting made of a precious jewelry metal, a plurality of fluorescent diamonds having at least medium blue fluorescent intensity which are set in the mounting to form a message, and a plurality of non fluorescent diamonds set within the mounting adjacent the fluorescent diamonds, such that when the mounting is viewed under standard light the fluorescent diamonds are not discernable from the non fluorescent diamonds and the message is not visible, and such that when the mounting is viewed under ultraviolet light the fluorescent diamonds emit visible blue light to form and reveal the message.

Granted

US20030074880A1: Ornamental jewelry rope chain link element

Assignee: none

Publication: 24/04/2003

Filed: 22/11/2002

Contents: Rope chain link elements and a manufacturing process to make such link elements, each link element exhibiting a unique visual property, such as coloration, surface texture, reflectivity, design feature or characteristic, shape, or other visually attractive appearance.

Application

US20030074881A1: Jewelry rope chain link element

Assignee: none

Publication: 24/04/2003

Filed: 21/11/2002

Contents: A decorative rope chain and a manufacturing process to produce a rope chain in which each link element used as a basic building element exhibits a unique visual property, such as surface texture, coloration, attribute, feature, characteristic, shape or other physical appearance.

Application

US20030077980A1: Vibratory material removal system and method

Assignee: none

Publication: 24/04/2003

Filed: 22/10/2001

Contents: Material is removed from objects to be marked or machined by applying apertured masks having cutouts arranged in a pattern on the objects, applying a liquid mixture of abrasive particles over the masks, and then ultrasonically vibrating the mixture to propel the abrasive particles through the cutouts to transfer the pattern to the objects. Marking diamond.

Application

WTOCD

US20030081508A1: Apparatus for setting gems and providing hidden compartments in a timepiece

Assignee: none

Publication: 01/05/2003

Filed: 15/10/2002

Contents: The present invention is directed toward a timepiece, such as a watch, having a protective cover with a gem set therein.

Application

WO03032765A2: A ROUNDED RECTANGULAR GEMSTONE

Assignee: KEDEM, Michael

Publication: 24/04/2003

Filed: 16/10/2002

Contents: A rounded rectangular gemstone which comprises a crown provided with a planar table, a pavilion whose facets converge at a cutlet being disposed below said crown, and a girdle extending from said crown to said pavilion, said girdle being substantially perpendicular to said table and assuming a rectangular shape when viewed thereabove and therebelow, wherein said crown and said pavilion have substantially circular cross-sections along a plane parallel to said table and the facets of said pavilion are arranged in rotational symmetry about said cutlet and in mirror symmetry about lines of symmetry passing through said cutlet and the midpoint of each side of said girdle and through said cutlet and each corner of said girdle.

Remarks: Utility patent

Application

USD473815: Precious stone

Assignee: Diamintangibles International, Ltd.

Publication: 29/04/2003

Filed: 24/04/2002

Contents: The ornamental design for a precious stone. Round cut.

Granted

US6553667: Apparatus and method for manufacturing composite articles including wear resistant jewelry and medical and industrial devices and components thereof

Assignee: none

Publication: 29/04/2003

Filed: 15/05/2002

Contents: System, apparatus, and method for making composite articles. Jewelry items such as finger rings, bracelets, earrings, body jewelry, and the like, are examples of such articles.

Granted

US20030074919A1: Decorative articles with interchangeable modules

Assignee: none

Publication: 24/04/2003

Filed: 18/10/2001

Contents: Decorative articles are disclosed having interchangeable modules. The decorative articles, such as rings, include a body or shank having first and second surfaces and defining an aperture therethrough.

Application

WTOCD

US20030071021A1: Automatic marking of diamond girdles using a laser

Assignee: Danog Properties & Investments Ltd.

Publication: 17/04/2003

Filed: 02/08/2002

Contents: A method of inscribing an indicium on a girdle of a gemstone, by producing a profile of the girdle by performing measurements of the gemstone, determining one or more locations on the girdle to inscribe the indicium by comparing the indicium with the profile and inscribing the indicium on the girdle at one of the locations.

Application

US6552300: Laser marking on diamonds

Assignee: Sarin Technologies, Ltd.

Publication: 22/04/2003

Filed: 02/08/2001

Contents: A diamond marking attachment comprising a laser, for a 3D diamond mapping apparatus, and a method of laser marking on a diamond surface, via a material that is capable of interacting with a laser beam either in a way that this material is permanently changed and turns into a char mark that adheres to the diamond surface, or in a way that a permanent mark is etched through the material into the diamond surface.

Granted

EP0715885B1: A low defect density diamond single crystal and a process for the production of the same

Assignee: Sumitomo Electric Industries, Ltd.

Publication: 02/04/2003

Filed: 05/12/1995

Contents: A colourless, transparent, low defect density synthetic type IIa diamond single crystal, characterised in that said crystal has a density of etch pits due to needle-shaped defects of at most 3×10^5 pieces/cm².

Granted

EP0885572B1: Jewels for live or artificial tooth or teeth

Assignee: Noda, Satoshi

Publication: 02/04/2003

Filed: 16/09/1997

Contents: A tooth ornament, comprising a clear gem; and a gem retainer made from metal or a synthetic resin and fitted to a rear surface of the gem for securing the gem in an at least partially buried condition in a concavity formed in a live or artificial tooth; characterised in that the said gem retainer is adapted to have a high light-reflectance and further includes an outward end and a base end and an intermediate point therebetween and presents an outer structure gradually thinning inwardly from the outer end toward the intermediate point and gradually thickening outwardly from the intermediate point to the base end.

Granted

WTOCD

US20030062335A1: Process for smoothing a rough surface on a substrate by dry etching

Assignee: HRL LABORATORIES, LLC

Publication: 03/04/2003

Filed: 12/08/2002

Contents: A process for smoothing a rough surface on a substrate, such as a diamond or silicon carbide substrate, said rough surface including protruding peak portions separated by valleys, said smoothing comprising depositing a coating on said rough surface so as to adhere to and to fill at least the valleys of said rough surface, mechanically polishing the thus coated rough surface so as to achieve a smooth coated surface, and dry etching the smooth coated surface.

Application

US20030065586A1: Electronic commerce product pricing and selection system and method

Assignee: none

Publication: 03/04/2003

Filed: 31/07/2001

Contents: An electronic commerce product pricing and selection system and method is disclosed. A product cost and a product attribute corresponding to a product are first received from a vendor via a communications network. A sale price is then determined for the product using the product cost and a competitive price is determined using the product attribute. The sale price and the competitive price are then compared and the product is displayed for sale on a website at the sale price if the sale price is determined to be within a predefined range or threshold of the competitive price.

Application

US6544315: Sintered jewelry and decorative articles

Assignee: none

Publication: 08/04/2003

Filed: 12/03/2001

Contents: An item of jewelry or decorative article of attractive and original appearance, formed from spheres of sinterable material using a low pressure sintering process such that the spheres retain their individual shapes.

Granted

US6546305: Method and apparatus for jewelry design

Assignee: Harry Winston Inc.

Publication: 08/04/2003

Filed: 23/03/2000

Contents: The present invention utilizes a computer program to size and orient one or more feature items on a jewelry design having a feature path.

Granted

FR2829590A1: MONTRE-BIJOUX A AFFICHAGE CIRCULAIRE CONTINU OU ALTERNATIF, INDIQUANT L'HEURE A L'AIDE D'UN DIAMANT AUTOUR DU POIGNET

Assignee: RICHARD JEAN JEAN

Publication: 14/03/2003

Filed: 07/09/2001

Application

WTOCD

US20030056536A1: Princess cut invisible stone setting

Assignee: none

Publication: 27/03/2003

Filed: 06/11/2002

Contents: A new and improved stone setting is disclosed that supports the stone with an invisible setting comprising a notch on a facet of the stone with a portion of an upwardly extending support bracket extending into the notch and forming an interference fit therewith. The stone setting does not require support from a sidewall or a prong.

Remarks: Utility patent

Application

US20030057192A1: Method of laser controlled material processing

Assignee: IMRA America, Inc.

Publication: 27/03/2003

Filed: 24/10/2002

Contents: A method for material processing using a pulsed laser includes generating a beam of laser pulses, focusing the beam in a plane above the surface of a workpiece, causing breakdown of matter at a lasing point, and removing or modifying material of the workpiece. The method, wherein the workpiece material is glass, quartz, sapphire, or diamond.

Application

US20030058917A1: Laser marking system and method

Assignee: none

Publication: 27/03/2003

Filed: 04/10/2002

Contents: Diamonds are marked by a laser beam having a characteristic that is changeable by positioning a selected aperture in the beam within a resonant cavity of a laser source. Guidelines are positioned in advance on the diamonds, and the marking is subsequently performed between the guidelines.

Application

WO03023382A1: EXAMINING A DIAMOND

Assignee: GERSAN ESTABLISHMENT, LAWSON, Simon, Craig

Publication: 20/03/2003

Filed: 12/09/2002

Contents: In order to determine whether a blue-to-green diamond has been artificially irradiated or ion bombarded to change its colour, it is irradiated with light of 633 nm wavelength in order to stimulate the emission of luminescence, and luminescence from about 680 to about 800 nm is detected using a confocal microscope and a spectrometer as the focal plane is scanned vertically through the diamond. Alternatively, in order to determine whether a diamond (1) is a natural/synthetic doublet, it is irradiated with radiation of 325 nm wavelength in order to stimulate the emission of luminescence, and luminescence from 330 to 450 nm is detected. An abrupt change in luminescence with increase in depth indicates that the diamond is a natural/synthetic doublet.

Application

WTOCD

WO03022089A2: DOUBLE-FACE JEWEL

Assignee: RANCANGELO DI RANCAN DARIO E PIETRO S.N.C.

Publication: 20/03/2003

Filed: 04/09/2002

Contents: Annular jewel, such as a necklace, bracelet and the like, having a double-face construction, comprising an elongated main body having a first and a second display face of substantially different appearance and a decorative element rotatably connected to the elongated main body in order to assume two display positions corresponding to the two display faces.

Application

US6532765: Jewelry stone assembly

Assignee: Sandberg & Sikorski Diamond Corp.

Publication: 18/03/2003

Filed: 20/06/1997

Contents: A jewelry assembly which creates the appearance of a space between one or more diamonds or other stones and the supporting jewelry article is provided.

Granted

WO03021541A2: SYSTEM AND METHOD OF AUTHENTICATING AN ARTICLE

Assignee: IP AND INNOVATION COMPANY HOLDINGS (PTY) LIMITED

Publication: 13/03/2003

Filed: 02/05/2002

Contents: A system and method for certifying and authenticating an article such as a diamond is provided.

Application

EP1042665B1: EXAMINING DIAMONDS AND GEMSTONES

Assignee: GERSAN ESTABLISHMENT

Publication: 19/03/2003

Filed: 23/12/1998

Contents: A method of viewing a diamond or gemstone, comprising irradiating the diamond or gemstone with diffused radiation or with direct radiation and producing an image of the diamond or gemstone when irradiated with diffused radiation or with direct radiation. It is the object of the invention to be able to view marks on the diamond or gemstone.

Granted

USD472181: Combined four stone round gemstone arrangement with setting

Assignee: L.I.D. Ltd.

Publication: 25/03/2003

Filed: 20/12/2001

Contents: The ornamental design for a combined four stone round gemstone arrangement with setting.

Granted

WTOCD

US20030051459A1: Decorative chain element

Assignee: none

Publication: 20/03/2003

Filed: 02/08/2002

Priority: 11/01/2000

Contents: An ornamental chain element comprises a hollow body constituted by two complementary portions provided with co-operating internal snap-fastening means.

Application

US20030046955A1: Star-shaped gemstone jewelry arrangements with settings

Assignee: none

Publication: 13/03/2003

Filed: 07/09/2001

Contents: A star-shaped multi-stone setting for receiving five substantially rhomboid-shaped gemstones or diamonds in the star-shaped setting.

Application

USD471483: Gemstone

Assignee: none

Publication: 11/03/2003

Filed: 06/02/2002

Contents: Design

Granted

USD471484: Gemstone

Assignee: none

Publication: 11/03/2003

Filed: 06/02/2002

Contents: Design

Granted

US6527854: Method for contact diffusion of impurities into diamond and other crystalline structures and products

Assignee: none

Publication: 04/03/2003

Filed: 14/12/2000

Contents: A low free energy method for more rapidly diffusing an impurity as exemplified by boron, into a natural or synthetic diamond or other crystalline element in powdered or granular form, without degradation of the crystalline structure.

Granted

USD471128: Gemstone

Assignee: none

Publication: 04/03/2003

Filed: 29/03/2002

Contents: cut corner square cut design patent

Granted

WTOCD

US20030041620A1: Non-rectangular multistone jewelry

Assignee: none

Publication: 06/03/2003

Filed: 30/08/2001

Contents: A non-rectangular multistone piece of jewelry is formed by a single generally rectangular cut center stone having four major sides, four truncated pie-shaped side stones, and a setting.

Application

US20030039603A1: Boron doped blue diamond and its production

Assignee: none

Publication: 27/02/2003

Filed: 23/08/2001

Contents: A method for synthesizing boron doped diamond for improving the oxidation resistance of said diamond crystals includes forming a fully dense core (mixture) of graphite, catalyst/solvent metals, optional diamond seed crystals, and a source of boron. This mixture is subjected to diamond-formed high pressure/high temperature (HP/HT) conditions for a time adequate for forming diamond.

Application

US20030038121A1: Laser system and method for marking gemstones

Assignee: none

Publication: 27/02/2003

Filed: 15/01/2002

Contents: A system and method for marking a surface of a gemstone employs an optical passage member positioned in the resonant cavity of an excimer laser in proximity to the front laser mirror, so that to pattern the generated laser beam in a predetermined fashion and to expose the gemstone to the patterned laser beam for evaporating the material of the gemstone from the surface of the gemstone at locations predetermined by the optical passage member.

Application

WO03014427A1: SYSTEM AND METHOD FOR PRODUCING SYNTHETIC DIAMOND

Assignee: APOLLO DIAMOND, INC.

Publication: 20/02/2003

Filed: 08/08/2002

Contents: Synthetic monocrystalline diamond compositions having one or more monocrystalline diamond layers formed by chemical vapor deposition, the layers including one or more layer having an increased concentration of one or more impurities (such as boron and/or isotopes of carbon), as compared to other layers or comparable layers without such impurities.

Application

WTOCD

BE1014011A: Gemstone image capture system

Assignee: DIAMOND AND JEWELRY-4-U LTD.

Publication: 25/07/2001

Filed: 30/10/2000

Priority: 29/10/1999

Contents: A gemstone image capture system comprises a number of identical user terminals which are capable of capturing high quality images of a gemstone. The images may be made publicly available on an internet website to allow potential buyers to inspect the gems via a remote viewing station. A method for obtaining a stereoscopic image of a gemstone is also disclosed.

Application

US6516864: Gem setting method and tool

Assignee: none

Publication: 11/02/2003

Filed: 06/04/2001

Contents: A tool has a ledge portion and a cutting blade portion for cutting a groove in a wax model for an article of jewelry. The groove is formed after the wax model is formed by mechanical removal of the wax, preferably by cutting with tool. The wax model and gems are then placed in an investment mold where the lost wax technique is used to form an article of jewelry with the gems set therein.

Granted

US6519972: Multi-stone oval gemstone assembly

Assignee: Am-Gold Products, Inc.

Publication: 18/02/2003

Filed: 27/03/2000

Contents: An assembly of gemstones which fit together to form a unitary shape is provided. The stones preferably make up an oval and are preferably four in number.

Granted

EP0984865B1: DIAMOND MARKING

Assignee: GERSAN ESTABLISHMENT

Publication: 12/02/2003

Filed: 22/05/1998

Contents: A method of forming on the surface of a gemstone a mark which is invisible to the naked eye, characterised in forming the mark with a focused ion beam.

Granted

USD469716: Diamond

Assignee: none

Publication: 04/02/2003

Filed: 11/04/2002

Contents: design, round brilliant derivative

Granted

USD469717: Jewelry component

Assignee: none

Publication: 04/02/2003

Filed: 08/08/2000

Contents: design

Granted

WTOCD

US6515738: Method of determining the authenticity and the geographical origin of gemstones such as beryls

Assignee: Mauboussin Successeur de Noury

Publication: 04/02/2003

Filed: 17/07/2000

Contents: The method of determining the authenticity and the geographical origin of gemstones of crystalline structure comprises the steps consisting in: applying an electromagnetic beam to the gemstone; determining values associated with the absorbance of the gemstone for wavelengths of the beam in an absorption direction that is predetermined relative to a characteristic axis of the crystal; calculating at least one ratio between these values; and comparing the or each ratio with predetermined corresponding ratios belonging to gemstones of predetermined authenticity and origin.

Granted

US20030024908A1: Etched article and method of etching

Assignee: none

Publication: 06/02/2003

Filed: 07/09/2001

Contents: A substrate is marked by applying a high melting point material over a lower surface of the substrate, and then heating the material layer. Indicia are formed by directing a source of radiant energy through the substrate for impingement on the material layer, and by moving the source and/or the substrate relative to each other.

Application

US20030019852A1: Laser marking system

Assignee: none

Publication: 30/01/2003

Filed: 06/09/2002

Contents: A laser energy microinscribing system, comprising a pulse laser energy source, a workpiece mounting system, allowing optical access to a mounted workpiece, an optical system for focusing laser energy from the laser energy source, onto the workpiece; means for directing said focused laser energy onto a desired portion of the workpiece, having a control input, an imaging system for viewing the workpiece from a plurality of vantage points, an input for receiving marking instructions, a processor for controlling said directing means based on said marking instructions and said imaging system, to selectively generate a marking based on said instructions and a predetermined program; and a storage system for storing information relating to images of a plurality of workpieces.

Application

USD469379: Six sided diamond

Assignee: Am-Gold Products, Inc.

Publication: 28/01/2003

Filed: 30/05/2001

Contents: Design

Granted

WTOCD

WO03005851A1: COMPOSITE JEWEL

Assignee: GNN DIAMONDS LTD.

Publication: 23/01/2003

Filed: 10/07/2001

Contents: A composite jewel comprising: a) a central baguette stone element, b) four peripheral baguette stone elements disposed adjacent to the four sides of the central baguette stone element, c) four complementary peripheral stone elements, located at the four corners of the central stone element, each of the stone elements having a crown with a table and two or more bevel steps.

Application

USD469033: Round multi-faceted diamond

Assignee: M. Fabrikant & Sons, Ltd.

Publication: 21/01/2003

Filed: 30/05/2001

Contents: design

Granted

USD469034: Modified round faceted diamond

Assignee: M. Fabrikant & Sons, Ltd.

Publication: 21/01/2003

Filed: 11/06/2001

Contents: design

Granted

USD469035: Modified princess faceted diamond

Assignee: M. Fabrikant & Sons, Ltd.

Publication: 21/01/2003

Filed: 11/06/2001

Contents: design

Granted

US6508009: Gemstone measurement apparatus

Assignee: none

Publication: 21/01/2003

Filed: 15/09/2001

Contents: An improved gemstone measuring apparatus includes a pair of linearly aligned measurement flanges used to determine the linear dimensions of a gemstone along a plurality of axes.

Granted

US20030012679A1: Gold alloys and master alloys for obtaining them

Assignee: LEG.OR S.R.L.

Publication: 16/01/2003

Filed: 29/05/2002

Contents: A Gold alloy comprising, in terms of weight, at least: Gold: $Au \geq 33\%$; Iridium: $Ir \leq 0.4\%$; Germanium: $Ge \leq 2\%$; Silicon: $0.015\% \leq Si \leq 0.3\%$;

Phosphorus: $P \leq 0.02\%$; Copper: Cu sufficient to reach 100.

Application

WTOCD

US20030010058A1: Princess cut diamond and method of forming thereof

Assignee: Samuel Aaron, Inc.

Publication: 16/01/2003

Filed: 31/05/2002

Contents: A princess cut gemstone having a pavilion, a girdle, and a crown is disclosed. In the presently preferred embodiment, the princess cut gemstone is a diamond with 101 facets: a pavilion of 64 facets, a girdle of 4 facets, and a crown with 33 facets (including the table).

Remarks: Utility patent application
Application

USD468660: Gemstone arrangement

Assignee: Continental Jewelry

Publication: 14/01/2003

Filed: 11/02/2002

Contents: Design

Application

US6493912: Stone setting methods

Assignee: China Diamond Production Company Limited

Publication: 17/12/2002

Filed: 06/07/2000

Contents: A method of producing stone set jewelry includes the step of forming at least one affixation groove within the stone to be set in the jewelry.

Granted

US6497853: Diamond growth

Assignee: Moosa Mahomed Adia

Publication: 24/12/2002

Filed: 23/11/1999

Contents: Diamond crystals may be grown by providing a source of diamond crystals, providing a plurality of growth centers defined by diamond crystals, mixing the source and growth center diamond crystals with a solvent/catalyst in particulate form to form a reaction mass, subjecting the reaction mass to conditions of elevated temperature and pressure suitable for crystal growth, and recovering the diamond crystals.

Granted

USD467833: Mixed cut diamond

Assignee: none

Publication: 31/12/2002

Filed: 11/08/2001

Contents: design

Granted

US6499426: System and method for coating non-planar surfaces of objects with diamond film

Assignee: Saint-Gobain Industrial Ceramics, Inc.

Publication: 31/12/2002

Filed: 10/12/1999

Contents: A system and method for depositing a CVD diamond coating on a non-planar surface of an object is provided.

Granted

WTOCD

USD468228: Multi-stone setting for diamonds and gemstones

Assignee: Orion Diamond, Inc.

Publication: 07/01/2003

Filed: 09/02/2000

Contents: design

Granted

USD468229: Jewelry component

Assignee: none

Publication: 07/01/2003

Filed: 16/04/2001

Contents: design

Granted

US20020184916A1: Magnifying jewelry setting and method of producing same

Assignee: none

Publication: 12/12/2002

Filed: 07/06/2001

Contents: A gemstone is enclosed within a transparent spherical setting.

Application

US20020192470A1: Grinding and polishing tool for diamond, method for polishing diamond, and polished diamond, single crystal diamond and single diamond compact obtained thereby

Assignee: none

Publication: 19/12/2002

Filed: 25/07/2002

Priority: 12/05/1999

Contents: The grinder is formed of a main component which is an intermetallic compound consisting of one kind or more of elements selected from the group of Al, Cr, Mn, Fe, Co, Ni, Cu, Ru, Rh, Pd, Os, Ir and Pt and one kind or more of elements selected from the group of Ti, V, Zr, Nb, Mo, Hf, Ta and W. Alternatively, the portion of the diamond subjected to polishing can be heated to a temperature within the range 100-800° C.

Application

US20020194092A1: Method and system for selling items, and a device for presentation of a purchased item

Assignee: none

Publication: 19/12/2002

Filed: 29/04/2002

Provisional: 30/04/2001

Contents: A method of selling items, the method comprising the steps of: (a) allowing a purchaser of a specific item for choosing information to be included in purchase-related data associated with this specific purchase, and for selecting a manner in which the purchase-related data is to be presented to the purchaser or another person for whom the item is being purchased; and (b) creating at least one predetermined output representative of the purchase-related data and formatted in the manner of presentation thereof selected by the purchaser.

Application

WTOCD

US20020195095A1: Method for preparing a diamond

Assignee: none

Publication: 26/12/2002

Filed: 25/06/2001

Contents: A method for preparing a diamond having a six-pointed-star shaped girdle comprising: (1) providing a round diamond; and (2) grooving six equally spaced, equally-sized triangularly-shaped 120° angled grooves in the girdle of the round diamond. Also disclosed is a grooving machine comprising a dop, wherein the dop may be rotated between six equally-spaced stops.

Remarks: Utility patent

Application

US20030008077A1: Process for imparting and enhancement of colours in gemstone minerals and gemstone minerals obtained thereby

Assignee: none

Publication: 09/01/2003

Filed: 25/01/2002

Contents: The present invention provides a process for imparting colours to colourless gemstone/minerals and enhancing properties of gemstone/minerals by coating a thin/thick film of a particular material or multiple films of different materials on polished gemstones/minerals to impart colour in colourless stones and to enhance the colour in paler stones, and to such gemstones/mineral obtained by the process.

Application

WO02099359A1: METHOD AND DEVICE FOR DETERMINING THE ANGLE BETWEEN TWO FACETS OF A TRANSPARENT OBJECT

Assignee: WETENSCHAPPELIJK EN TECHNISCH ONDERZOEKSCENTRUM VOOR DIAMANT

Publication: 12/12/2002

Filed: 05/06/2002

Priority: 05/06/2001

Contents: Measuring the inclination of facets by internal reflection of a light beam.

Application

US6501554: 3D scanner and method for measuring heights and angles of manufactured parts

Assignee: PPT Vision, Inc.

Publication: 31/12/2002

Filed: 20/06/2001

Contents: In the context of a machine-vision system for inspecting a part, a method and apparatus to provide high-speed 3D (three-dimensional) inspection of manufactured parts.

Granted

WTOCD

US6502589: Method and device for cleaning and polishing jewelry

Assignee: none

Publication: 07/01/2003

Filed: 12/09/2000

Contents: The invention also includes a new method of cleaning and polishing jewelry, comprising the steps of immersing the jewelry in liquid cleaning solution contained in a foam-lined sealed container; and, agitating said cleaning solution.

Granted

US6503387: Method and device for electro-chemical discharge processing with self-acting bubble layer

Assignee: Industrial Technology Research Institute

Publication: 07/01/2003

Filed: 09/02/2001

Contents: Processing, and precision processing in particular, of non-conductive materials is obtained by arc discharge caused by high voltage application and chemical reactions associated with cathode and anode.

Granted

US20030000249A1: Gem setting having a securing member

Assignee: none

Publication: 02/01/2003

Filed: 28/06/2001

Contents: A securing member, for receiving the gemstone, is attached to an inner surface of a piece of jewelry by use of at least an extension means in any fashion that is known in the art such as, but not limited to, soldering.

Application

WO02101325A1: COMBINED RING AND GEMSTONE MEASURING DEVICE

Assignee: BARNHILL, Thomas, K.

Publication: 19/12/2002

Filed: 12/06/2001

Contents: A device for indicating both the ring size of a user and size of a gemstone.

Application

WO02103433A2: COMPACT LINEAR SCANNER SYSTEM

Assignee: IDEA MACHINE DEVELOPMENT

Publication: 27/12/2002

Filed: 19/06/2002

Priority: 19/06/2001

Contents: The invention provides a compact, linear XYZ-scanner system to be used for marking precious stones.

Application