CLAIMS

1. A medical apparatus (10) for guiding a medical implement (19), the apparatus (10) ~~being characterized by~~ comprising:

a mechanical mechanism (11) comprising:

a first mechanism portion (12) ~~coupled to~~having a first portion of addition (128), and including a contact element (151) ~~or~~ having a contact point (154), configured for disposition on a selected emplacement (EMPL) on a portion of a body (BDY), and

a second mechanism portion (14) ~~coupled to~~having a second portion of addition (148), and including an operation module (16) configured for guidance and support of the medical implement (19), wherein the mechanical mechanism (11) is further configured to:

permit displacement of the contact element (151) and of the operation module (16) relative to each other in bidirectional motion of translation along a segment of a straight line, and

maintain the medical implement (19) in permanent aim at the selected emplacement (EMPL) via an open aperture (1510) of the contact element (151), said aperture being configured for ~~therethrough by~~ visual inspection and/or ~~by~~ tactile palpation therethrough of the selected emplacement (EMPL),

wherein the first portion (12) and the second portion (14) are disposed in a first plane of operation (1PL), and the first portion of addition (128) and the second portion of addition (148) are disposed in a second plane of operation (2PL), and the first plane of operation (1PL) and the second plane of operation (2PL) are either one of the same plane and a different plane,

wherein the mechanical mechanism (11) is further configured to support at least one stopper element (20) which is configured for controllable adjustment of disposition to fixedly set a gap of separation (210) which separates apart between the contact point (154) of the contact element (151) and a tip (198) of the medical implement (19),

wherein the at least one stopper element (20) is adjustable to limit a depth of penetration of the medical implement (19) into a blind bore BBOR until arrested by the stopper (20) and/ or by finger detection.

~~2. The apparatus of claim 1, wherein the mechanical mechanism 11 is further configured to aim the medical implement 19 at the contact element 151 and/or~~

~~wherein the operation module 16 is further configured to support a plurality of various medical implements 19.~~

~~3. The apparatus of claim 1, wherein the operation module 16 is further configured to support at least one of an implement guide 17, and an implement guide 17 associated with an implement drive 18, wherein the implement guide 17 supports at least one of a guide sleeve 172, and a guide sleeve 172 which supports an adaptor sleeve 173.~~

~~4. The apparatus of claim 3, wherein the implement drive 18 is configured to both support a motorized drive 181 to which a medical tool 19 is coupled, and to drive the medical implement 19 into motion, wherein the motorized drive 181 is a hand-held power tool 182.~~

~~5. The apparatus of claim 1, wherein the contact element 151 is configured for disposition on the selected emplacement EMPL of the body BDY, including on bone BNE, tissue TSS, and skin SKN, as well as for disposition on an auxiliary element 157 coupled to the body, and/or~~

~~wherein the contact point 154 of the contact element 151 is further configured for disposition on an auxiliary element 157 which is supported on the body BDY, and~~

~~the contact point 154 remains disposed on the straight segment of line which is aimed at the selected emplacement EMPL.~~

~~6. The apparatus of claim 1, wherein the contact element 151 has an open aperture 1510 which is configured for inspection therethrough by at least one of visual scrutiny and manual tactile palpation, whereby drilling a blind bore BBOR is arrested upon finger-palpated detection of an incoming drill 194, wherein the medical implement 19 is permanently aimed at the open aperture 1510 along the segment of straight line, irrelevantly of one of motion and standstill of the mechanical mechanism 11, and of motion of at least one of the medical implements 19.~~

2. The apparatus of claim 1, wherein the mechanical mechanism (11) is characterized by having each one of both the first and the second portions (12, 14) formed as a structure having a general shape of a rectangular frame.

3. The apparatus of claim 1, wherein the mechanical mechanism (11) is further characterized by being configured for disposition with the second plane of operation (2PL) having a desired angle α relative to the first plane (1PL), wherein the angle α is fixed or adjustable.

4. The apparatus of claim 1, wherein the open aperture (1510) of the contact element (151) is configured for a fingertip (FNGRTP) to pass therethrough just to make manual tactile contact with the fingertip (FNGRTP) as the contact point (154).

~~7~~5. The apparatus of claim 1, ~~wherein the mechanical mechanism 11 is further configured to support at least one stopper element 20 which is configured for controllable adjustment of disposition to fixedly set a gap of separation 210 which separates apart between the contact point 154 of the contact element 151 and a tip 198 of the medical implement 19,~~

wherein controllable adjustment of disposition of the stopper element (20) includes at least one of a fine adjustment control and a coarse adjustment control ~~and/or~~

~~wherein the at least one stopper element 20 is adjustable to limit a depth of penetration of the medical implement 19 into a blind bore BBOR~~.

~~8. The apparatus of claim 1, wherein the first plane of operation 1PL and the second plane of operation 2PL are disposed at an angle α relative to each other, which angle α is one of a fixed angle and an adjustable angle.~~

~~9~~6. The apparatus of claim ~~3~~1, wherein:

the implement guide (17) is further configured to support at least one medical implement (19) in aim at the contact element (151), and

the implement drive (18) is configured to drive the at least one medical implement (19) alone and in combination, in at least one of linear translation motion, rotational motion, and reciprocation motion.

~~10~~7. A method for constructing a medical apparatus (10) according to any of claims 1 to 6 for guiding a medical implement (19) for implantation of medical implants, including orthopedic implants, dental implants and zygomatic implants (ZI),
the method being characterized by comprising:

constructing a mechanical mechanism (11) including:

providing a first mechanism portion (12) coupled to a first portion of addition (128) and having a contact element (151) made for disposition on a selected emplacement (EMPL) on a portion of a body (BDY),

providing a second mechanism portion (14) coupled to a second portion of addition (148) and having an operation module (16) made for supporting a medical implement (19),

wherein the first portion (12) and the second portion (14) are disposed in a first plane of operation (1PL), and the first portion of addition (128) and the second portion of addition (148) are disposed in a second plane of operation (2PL), and the first plane of operation (1PL)

and the second plane of operation (2PL) are either one of the same plane and a different plane,

adapting the mechanical mechanism (11) for aiming a longitudinal axis (198) of the medical implement (19) at an open aperture (1510) of the contact element (151) which is configured for visual inspection therethrough by visual scruting and/or tactile palpation of the selected emplacement (EMPL), and for

providing mutual relative displacement between the operation module (16) and the contact element (151) in bidirectional translation motion along a segment of a straight line and in permanent mutual aim of the medical implement (19) in orientation directed along the straight segment of line, and

forming the contact element (151) as a gimbal mechanism (1511) having at least three degrees of freedom of rotation.

~~11~~8. The method of claim ~~10~~7, wherein:

the operation module (16) includes an implement guide (17), and an implement drive (18) which is slidable into and out of the former, and

retrieval of the implement drive (18) out of the implement guide (17) allows the latter to support and guide medical implements (19) therein.

~~12~~9. The method of claim ~~11~~8, wherein the implement guide (17) is adapted for support and guidance of various dental implements (19) by use of diameter-matching adaptor sleeves (173), wherein adaptor sleeves (173) are supported in the implement guide (17) in exchangeable engagement therein and releasable extraction thereout.

~~13. The method of claim 10, wherein:~~

~~the contact element 151 has an open aperture 1510 which is adapted for:~~

~~disposition on a selected emplacement EMPL, and~~

~~provision of inspection by visual scrutiny and tactile palpation of the selected emplacement EMPL through the open aperture 1510, and/or~~

~~wherein the contact element 151 is configured as a gimbal mechanism 1511 having a finger rest 1514 which is releasable and interchangeable.~~

10. The method of claim 7, wherein:

the contact element (151), formed as a gimbal mechanism (1511), has an open aperture (1510) which is adapted for:

disposition on a selected emplacement (EMPL), and

provision of inspection by visual scrutiny and tactile palpation of the selected emplacement (EMPL) through the open aperture (1510).

~~14. A medical apparatus 10 for guiding a medical implement 19 selected as a motor-driven medical implement 19,~~

~~the medical apparatus 10 being characterized by comprising:~~

~~a mechanical mechanism 11 supporting:~~

~~a first portion 12 coupled to a first portion of addition 128 which supports a contact element 151 configured for disposition on a selected emplacement EMPL on a portion of a body BDY,~~

~~a second portion 14 coupled to a second portion of addition 148 which supports, holds, and guides the implement 19,~~

~~wherein the first portion 12 and the second portion 14 are disposed in a first plane of operation 1PL, and the first portion of addition 128 and the second portion of addition 148 are disposed in a second plane of operation 2PL, and the first plane of operation 1PL and the second plane of operation 2PL are either one of the same plane and a different plane,~~

~~wherein the mechanism 11 is further configured to permanently guide and aim the implement 19 at an open aperture 1510 of the contact element 151 and to permit:~~

~~displacement of the contact element 151 and of the implement 19 relative to each other in bidirectional motion of translation along a segment of a straight line, and~~

~~visual inspection of the emplacement EMPL and/or manual tactile contact therewith of a fingertip FNGRTP via the open aperture 1510,~~

~~whereby the fingertip FNGRTP senses an incoming approach of an incoming motor-driven medical implement 19.~~

~~15. The apparatus of claim 14, wherein the contact element 151 has an open aperture 1510 which is configured for inspection therethrough by at least one of visual scrutiny and tactile palpation of the selected emplacement EMPL which is disposed on a portion of the body BDY, including bone BNE, tissue TSS, and skin SKN.~~