★★★ ＜第19回知的財産翻訳検定試験【第9回英文和訳】＞ ★★★

≪１級課題 -機械工学-≫

【解答にあたっての注意】

１．問題の指示により和訳してください。

２．解答語数に特に制限はありません。適切な個所で改行してください。

３．課題文に段落番号がある場合、これを訳文に記載してください。

４．課題は３題あります。それぞれの課題の指示に従い、３題すべて解答してください。

問１．次のクレーム（claims）を日本語に訳して下さい。

翻訳にあたっては、FIG.1を参考にし、指定用語を全て使って下さい。

1.　A joint prosthesis (100), comprising:

an acetabular component (175) having a bone-facing surface and a first non-contact surface, the bone-facing surface being configured to face a first bone-prosthesis interface in vivo;

a femoral head component (182) having an acetabulum-facing surface slidably in contact with the acetabular component (175);

a stem component (115) connected to the femoral head component (182), the stem component (115) having a second non-contact surface and a bone-facing surface, the bone-facing surface being configured to face a second bone-prosthesis interface in vivo,

wherein the acetabular component (175) includes a plurality of first fluid deflection structures positioned to extend from the first non-contact surface, the plurality of first fluid deflection structures each having a first

end connected to the first non-contact surface and a second end distal to the first non-contact surface,

the first fluid deflection structure is widest at the first end and narrowest at the second end, the first fluid deflection structure being positioned to direct a flow of synovial fluid away from the first bone-prosthesis interface in vivo during physiological movement of the joint prosthesis (100),

the stem component (115) includes a plurality of second fluid deflection structures positioned to extend from the second non-contact surface, the plurality of second fluid deflection structures each having a second end connected to the second non-contact surface and a second end distal to the second non-contact surface, and

the second fluid deflection structure is widest at the second end and narrowest at the second end, the second fluid deflection structure being positioned to direct a flow of synovial fluid away from the second bone-prosthesis interface in vivo during the physiological movement of the joint prosthesis (100).

指定用語

１００：人工関節

１１５：ステムコンポーネント

１３０：第１非接触面

１３５：第２非接触面

１４０：第１の流体偏向構造

１４５：第２の流体偏向構造

１７５：臼蓋コンポーネント

１８２：大腿骨頭コンポーネント

問２．次の背景技術の記載の抜粋を和訳してください。
英文の細かい表現にとらわれず、正確でわかりやすい翻訳を心がけてください。

[0005] Generally, gas turbine shrouds are manufactured from one or more rings or cylinders, and manufacturing and tooling facilities are configured accordingly. Welding of multiple materials to form gas turbine shrouds may include techniques such as weld build-up, strip cladding, brazing, or solid state bonding. These techniques suffer from a drawback that they may be limited based upon properties of the materials (for example, crystal structures, compositions, or other suitable properties).
[0006] So-called explosion welding, also known as blast cladding, explosion cladding, or explosive bonding, is a bonding technique that generally includes welding planar materials by an explosive force using explosive powder or the like, and results in a microstructure differing from other weld techniques. Explosion welding permits metals to be bonded that are otherwise incompatible. However, explosion welding processes have been limited to rather simple shapes and geometries. Therefore, current explosion welding techniques have been unable to bond structures in gas turbine shrouds.

問３．次の実施例の記載の抜粋を和訳してください。
なお、翻訳の際は図面を参照してください。
英文の細かい表現にとらわれず、正確でわかりやすい翻訳を心がけてください。

[0016] In Figs. 2 and 3, a utility portion 24 includes a first blade portion 38,

a second blade portion 40 and a third blade portion 42. Each of the first, second and third blade portions 38, 40, 42 extend away from an attachment portion 26, each in a different direction. The first blade portion 38 includes a first working edge 44 having a first working characteristic. The first working edge 44 is straight and includes asymmetrical teeth 46 particularly suited for cutting wood. The asymmetrical teeth 46 are generally aligned along a straight line.

[0017] The second blade portion 40 includes a second working edge 48 having a second working characteristic different from the first working characteristic. The second working edge 48 is curved and includes symmetrical triangular teeth 50 arranged along the curve which is an arc having an arc center D that coincides with the central axis A. The symmetrical triangular teeth 50 are particularly suited for cutting metal. The second edge 48 includes a greater number and higher concentration of teeth than the first edge 44.

[0018] The third blade portion 42 includes a third working edge 52 having a third working characteristic different from the first and second working characteristics The third working edge 52 includes a beveled surface 54 such that the third working edge 52 is a smooth, sharp arc-shaped edge tapering to a point and particularly suited for scraping. The third working edge 52 defines an arc center E that coincides with the central axis A and with the arc center D. Furthermore, the third blade portion 42 extends along a longitudinal axis F radially away from the central axis A. The longitudinal axis F intersects the central axis A and the arc centers D and E.

【機械工学　問１　図面】

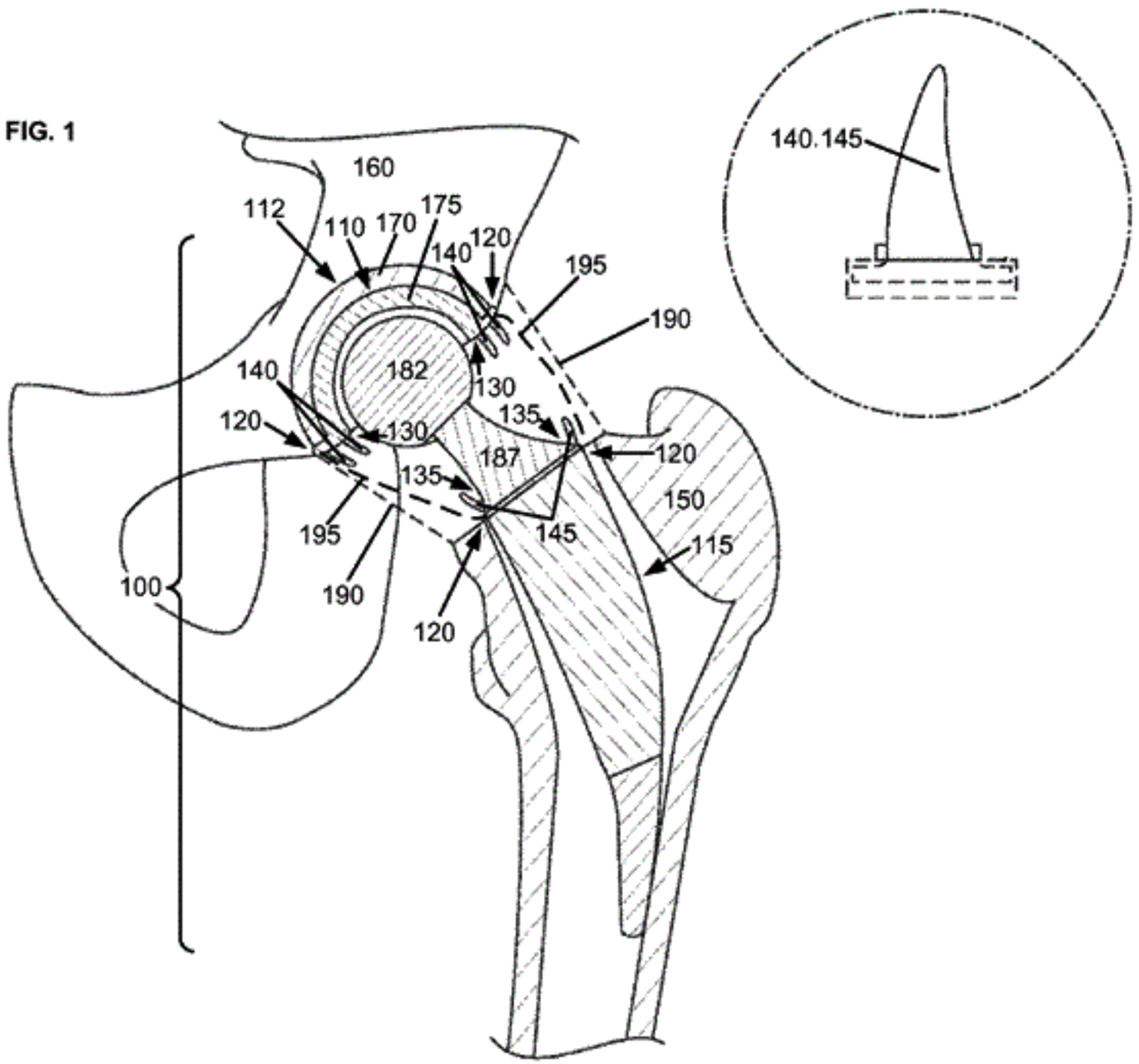
FIG. 1
160
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182
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187
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115
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140.145

【機械工学　問３　図面】

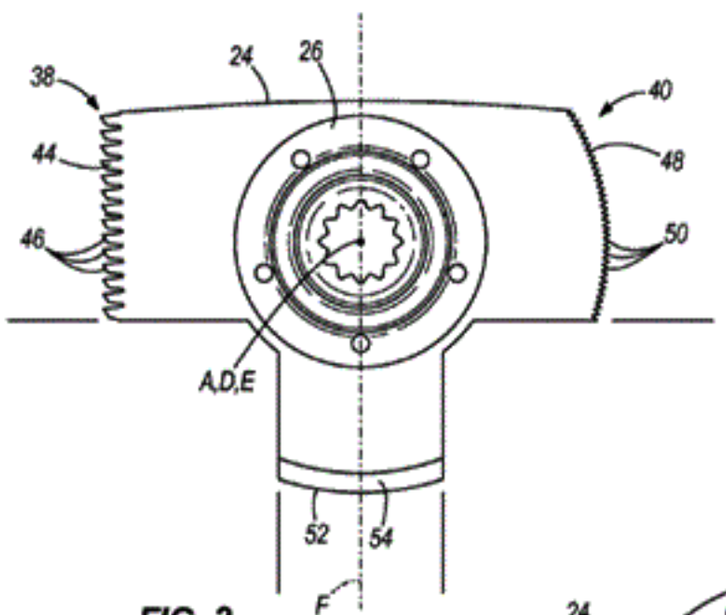

FIG. 2

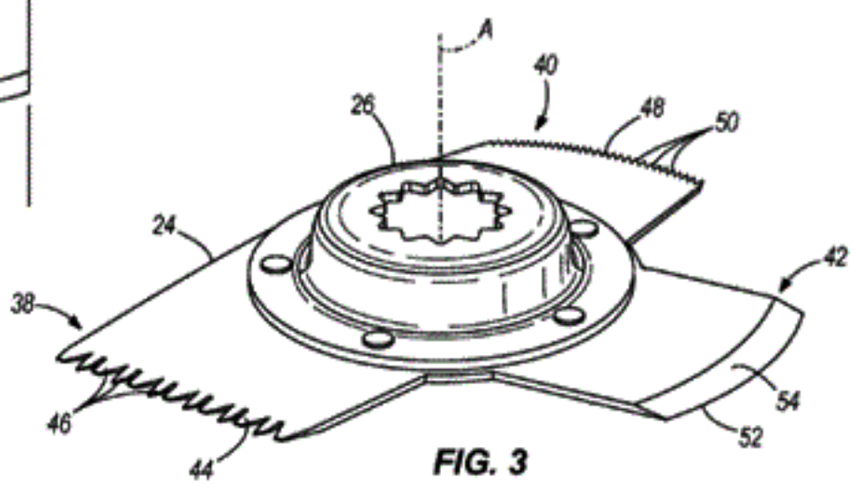

FIG. 3