

★★★<第15回知的財産翻訳検定試験【第7回英文和訳】>★★★

≪1級課題-機械工学-≫

【解答にあたっての注意】

1. \*\*\*START\*\*\*から\*\*\*END\*\*\*までを和訳してください。
2. 解答語数に特に制限はありません。
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) を日本語に翻訳して下さい。なお、翻訳にあたってはクレームの後ろの明細書の記載 (抜粋) および図面を参考にして下さい。

\*\*\*START\*\*\*

1. A method of performing a compression test on a golf ball comprising the steps of:

placing a golf ball between a first anvil and a second anvil so that the golf ball is located in a first depression defined by the first anvil and in a second depression defined by the second anvil, the first and second depressions being larger than a dimple on the golf ball;

compressing the golf ball by displacing one of the first and second anvils to produce a deflection of the golf ball;

communicating the displacement to a processor;

determining a force delivered to the one of the first and second anvils due to the step of compressing the golf ball;

communicating the force to the processor;

calculating a spring rate of the golf ball by dividing the force by the deflection of the golf ball; and  
converting the spring rate into a compression scale value.

\*\*\*END\*\*\*

【参考】明細書の記載（抜粋）

## PREFERRED EMBODIMENTS

Device 10 includes a housing 12 that defines a ball receiving receptacle 14 for receiving a golf ball 16 to be tested. Device 10 includes a force gauge assembly 18 located in housing 12.

Force gauge assembly 18 includes an upper anvil 20 secured in an upper anvil housing 22. Upper anvil 20 defines an upper ball receiving surface 24 on a lower side that defines an upper depression 26. Upper anvil 20 defines a protuberance 28 on an upper surface that selectively communicates with beam 30 of a tension measuring device 32, e.g., a strain gauge, for measuring a force applied by protuberance 28 of upper anvil 20..

Force gauge assembly 18 additionally includes a lower anvil 36. Lower anvil 36 defines internal threads 38. Lower anvil 36 has an upper surface that defines a lower ball receiving surface 40. Lower ball receiving surface 40 defines a lower depression 42. Lower anvil 36 may have a lower surface that communicates with thrust member 44.

Once device 10 is turned on, an encoder count of encoder wheel 62 is communicated to processor 64. At this time, golf ball 16 is compressed by continuing to rotate handle 58 in a first direction to continue to rotate threaded rod 50 for continued axial displacement of lower anvil 36 in an upward direction. The axial displacement of lower anvil 36 produces a corresponding deflection of golf ball 16. The axial displacement of

lower anvil 36 and the corresponding deflection of golf ball 16 are calculated by counting a number of rotations of threaded rod 50.

問 2. 次の背景技術の記載を日本語に翻訳して下さい。

\*\*\*START\*\*\*

[0002] Nearly every human has driven a nail. Currently and generally, a typical straight nail is mechanically formed from an appropriately prescribed wire stock extruded from an assembly/production line and accordingly stamped/severed therefrom with a driving head/cap pertinently complementary to an extraneous driving force (i.e., nail gun power or a handheld hammer) along with piercing chisel tips at the distal terminus of the nail shaft.

[0003] Typically, a nail is generally and ideally utilized as a physical device to secure together layers of items of appropriately-dimensioned recipient nail-able material, i.e., the shaft of a roofing staple, a spike into a rail/crosstie, a nail through a two-by-four to lodge securely against and into another two-by-four, etc.

[0004] Viewed independently, the same simple, single, basic design of the common nail has had an unsolved problem since Ancient Times. That shortcoming of this role, wholly dependent on an extraneous entity, i.e., the common hammer, and now the nail gun, role has persisted ever since.

[0005] Irrespective of the method of its delivery, a single straight nail, perpendicularly driven/installed, can be instantly extracted by effecting approximately the same, plus or minus, pressure reversed per a crow-bar or claw-hammer. Either can smoothly extract a hammer-driven nail straight out, as compared to the time and care that same nail shaft requires to be installed perpendicularly. Two-legged nails have been proposed which assure resistive embedment, and no single-shafted nail is as simply resistant to extraction/removal.

\*\*\*END\*\*\*

問3. 次の実施例の抜粋を日本語に翻訳して下さい。なお、翻訳にあたっては図面を参考にして下さい。

\*\*\*START\*\*\*

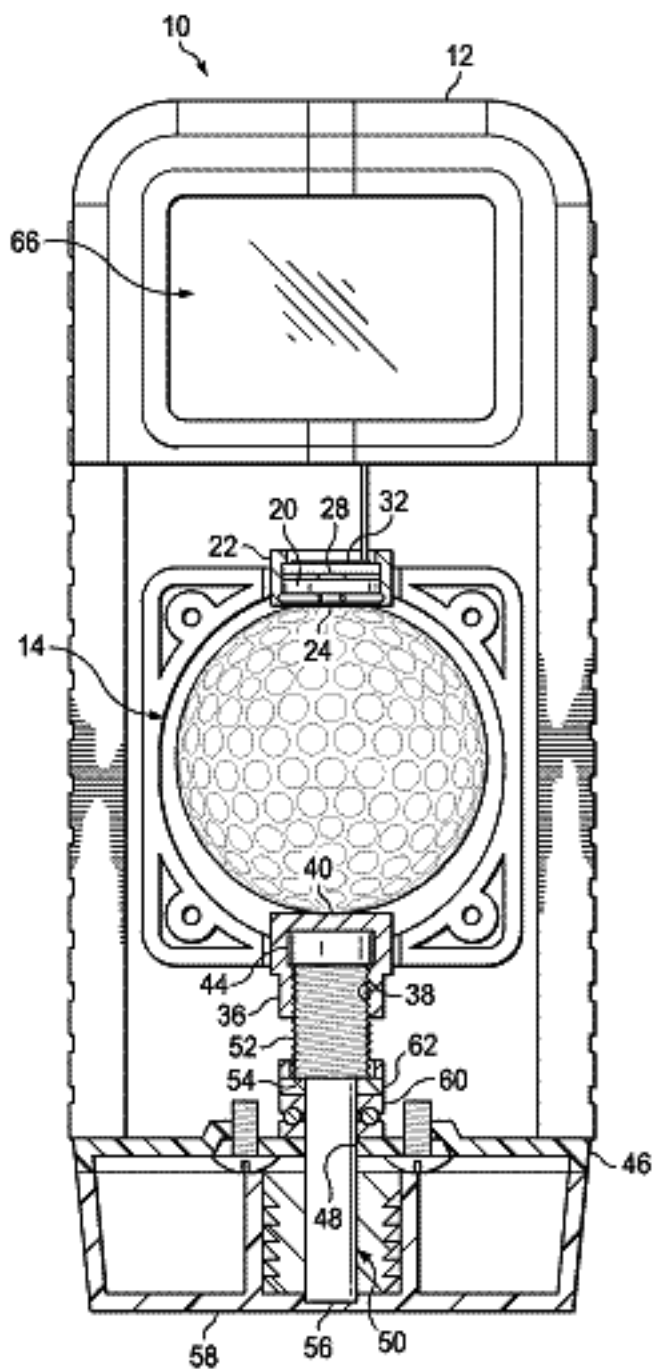
[0079] A motor 100 of a power tool includes an armature 102 and a stator 104. The armature 102 incorporates a lamination stack 106 having multiple longitudinal slots 108 arranged circumferentially therearound. Multiple magnet wires 110 are wound in the slots 108 to form multiple coil windings having end coils 117. An armature shaft 112 extends coaxially through the lamination stack 106 and has disposed on one end thereof a commutator 114. A thermally conductive plastic 116 is injection molded over the armature 102 so that the plastic flows into and through each of the slots 108. The thermally conductive plastic 116 preferably at least partially encases the magnet wires 110, and more preferably completely encases the magnet wires to form an excellent means for transferring heat therefrom..

[0080] The molding of the thermally conductive plastic 116 to substantially or completely encase the magnet wires 110 serves to efficiently conduct heat away from the magnet wires. Thus, the thermally conductive plastic 116 even more efficiently serves to secure the magnet wires 110 to the lamination stack 106 to prevent movement of the wires, as well as to improve the conduction of heat from the wires.

[0081] Encapsulation also provides enhanced mechanical retention of magnet wires 110 and can be used in lieu of adhesive typically used to secure members, in high vibration applications in particular. Armatures, as is known, have a natural frequency at which they resonate, commonly referred to as the resonant frequency. This frequency is a function of the geometry and stiffness of the armature.

\*\*\*END\*\*\*

【1級/機械工学 問1図面】



【1級/機械工学 問3図面】

