★★★ ２００８年度第７回知的財産翻訳検定＜英文和訳＞ ★★★

≪１級 -機械工学-≫

【解答にあたっての注意】

１．＜スタート＞ から＜エンド＞ までを英訳してください。

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

３．解答語数に特に制限はありません。

４．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。

５．課題に図面が添付されている場合、該当する図面を参照してください。

★「課題図表の表示／非表示」リンクで表示

問１． 次のクレームを日本語に翻訳してください。

問２． なお、翻訳にあたっては、＜スタート＞から＜エンド＞までとし、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ください。

＜スタート＞

1. A fastener comprising:

a generally cylindrical body about which a thread is formed,

a first set of flutes formed in the fastener towards one end of the fastener so as to extend from the one end over at least a part of a longitudinal distance along the fastener, each of the flutes intersecting the thread on one side along a line parallel to a longitudinal axis of the fastener and on second side along an arcuate line, the first set of flutes intersecting the thread along the second side to define cutting edges at intersections, the cutting edges acting to cut threads during use of the fastener, a radial outer edge of the thread between the flutes having substantially constant radius; and

a second set of flutes formed in the thread and each intersecting the thread, and a radial outer edge of the thread between the flutes of the second set also having substantially constant radius.

＜エンド＞

【参考】明細書の記載（抜粋）

The present invention relates to an improved fastener, and, in particular, to a threaded fastener or insert arranged in use to be self threading into a workpiece.

FIG. 1 shows a side view of a fastener in accordance with the present invention (part of which is shown in section). Fig. 2 shows an end view of the fastener shown in FIG. 1.

Referring to the drawings, a fastener 10 in accordance with the present invention is shown. The fastener 10 is provided with a headed portion 18 in the form of a thickened portion or flange at a second end of the body 12. A thread 20 is provided about the outer surface of the body 12, extending between the first end of the body 12 and the second end of the body 12.

A first set of grooves, notches or flutes 22 are formed in the fastener at the first end of the fastener 10 extending from the first end at least a part of a longitudinal distance along the fastener 10. In the illustrated embodiment the first set of flutes 22 comprises three identical such flutes 22 equiangularly spaced about the fastener. Each of the flutes 22 intersects the thread 20, first on one side along a line parallel to a longitudinal axis of the fastener and on a second side along an arcuate line, the flutes 22 intersecting the thread along the second side to define cutting edges 24 at the intersections, the cutting edges 24 acting to cut threads during use of the fastener.

A second set of indents, grooves or flutes 30 are formed in the thread 20. The second set of flutes 30 are located towards the second end of the fastener 10 and are spaced equiangularly about the fastener. Each of the second set of flutes 30 intersects thread 20 to define a set of partially cutting/partially forming edges 34 at the intersections.

【問 1・課題図表（機械工学)】

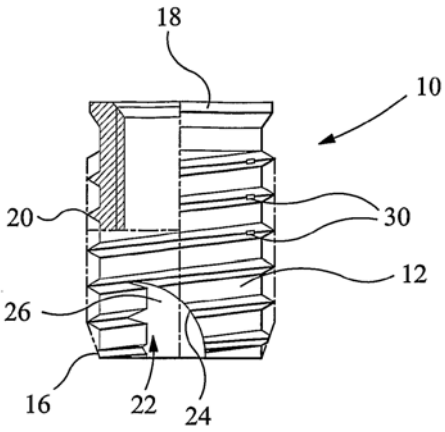

FIG. 1

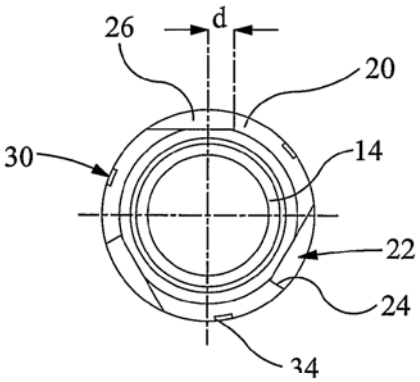

FIG. 3

問 2. 次の背景技術の記述を全て日本語に翻訳してください。段落番号も含めてください。個々の用語にとらわれず、英語で述べられている実状を正確に日本語で表現してください。

[0002] When used to position a platform, conventional two-dimensional electric motors do not smoothly and accurately position the platform. Presently, coils in the two-dimensional electric motors move with respect to the magnets. Cables and hoses are attached to the coil assembly. The cables are for electrical current and the hoses may be used to carry coil cooling fluid or air supply. Unfortunately, the hoses and cables impede free motion of the coil assembly. If the hoses could be eliminated, the stability of motion of the motor and positioning of the platform would be improved.

[0003] Also, in many cases conventional technology relies upon cumbersome stacked arrangements to achieve six degrees of freedom movement of the platform. The six degrees of freedom include three translational and three rotational degrees of freedom. Unfortunately, many designs obtain six degrees of freedom by essentially stacking multiple two dimensional and/or one dimensional motors which move only in two dimensions within a plane. For example, a platform may be propelled back and forth in one dimension under the control of linear electric motors. The linear electric motors are part of a holder which holds the platform. In turn, a second holder holds that entire holder and platform arrangement via joint connections and propels it back and forth in a second dimension by another set of linear electric motors. Additional degrees of motion may be provided by voice coil motors which are attached to these holders.

[0004] These types of stacked arrangements have a few drawbacks. Each additional holder enabling more degrees of freedom also adds mass requiring additional power for the electric motors to move the platform. Also, the complicated joint connections degrade accuracy of positioning of the platform and create additional resonant vibration frequencies.

問3. 次の実施例の抜粋を日本語に翻訳してください。なお、翻訳にあたっては、＜スタート＞から＜エンド＞までとし、【参考】の一段落および図面を参考にしてください。

【参考】

[0034] With reference now to Figs. 1-2, one illustrative implant of the invention will now be described. Intervertebral disc prosthesis 20 includes a ball component 22 and a trough component 24 that are interengagable to form prosthesis 20. At least one of these elements 22 and 24 will be made at least partially from, and potentially completely from, an amorphous metal material.

【課題】

＜スタート＞

[0035] In an intervertebral disc space 28 (Fig. 2) between two adjacent vertebrae 26, 27, ball component 22 is fixed to one adjacent vertebra (e.g. vertebra 26), and trough component 24 is fixed to the other (e.g. vertebra 27) so that the components are interengaged within at least a portion of intervertebral space 28.

[0036] Ball component 22 includes a generally convex surface 30 and an opposite substantially flat vertebra engaging surface 32. A wedge surface 33 is provided at one end of vertebra engaging surface 32, facilitating insertion of ball component 22 into the disc space and impeding migration of ball component 22. A flange 34 is provided at one end of ball component 22 for screwing ball component 22 to a vertebra, preferably formed to have a low profile and bulk. Flange 34 is at the opposite end of ball component 22 from wedge surface 33, and includes a vertebra engaging surface 35.

＜エンド＞

【問３・課題図表（機械工学)】

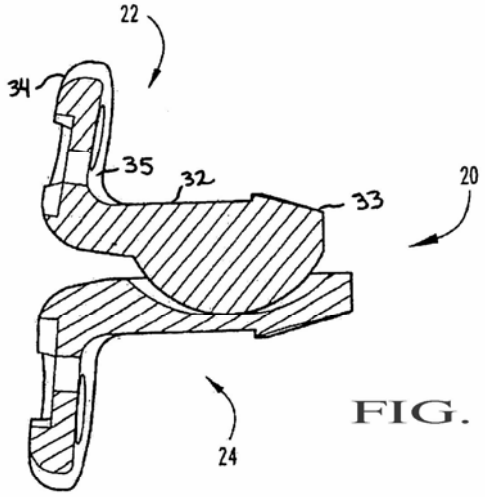

FIG. 1

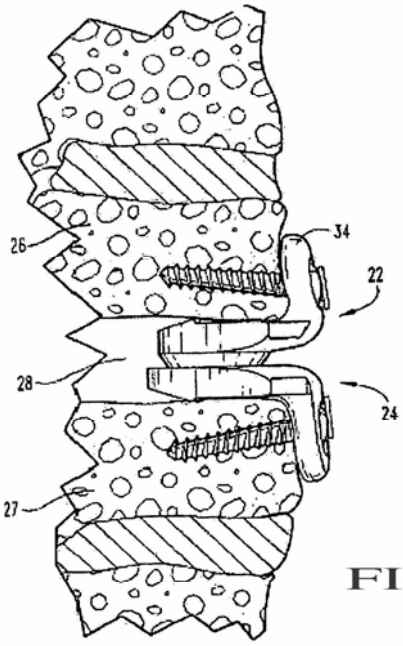

FIG. 2