★★★ ＜第29回知的財産翻訳検定試験【第14回英文和訳】＞ ★★★
≪２級課題≫

【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。適切な箇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．以下はある米国特許の背景技術の英文です。日本語に訳してください。

The control of air pollution is an increasingly important international problem. Air pollution has been linked to a number of significant problems such as ozone depletion, global climate change, acid rain, environmental degradation, and health effects in humans, plants, and animals. The problem of controlling air pollution is expected to continue to increase in importance as general population growth continues and energy expenditures increase in developing countries.

Air pollution is created by a number of different types of sources, and exists in a number of different forms. Sources of air pollution are generally categorized as area sources, mobile sources, and point sources. Area sources include small pollution sources like dry cleaners, gas stations, and auto body paint shops, and are defined as sources that emit less than 10 tons per year of criteria pollutants or hazardous air pollutants. Mobile sources include both on-road vehicles such as cars and off-road equipment such airplanes and construction equipment. Nationwide, mobile sources are responsible for a majority of carbon monoxide pollution and a majority of nitrogen oxide pollutants. Point sources include major industrial facilities like chemical plants, steel mills, oil refineries, power plants, and hazardous waste incinerators. Point sources are defined as those that emit 10 tons per year of criteria pollutants or hazardous air pollutants. Nationwide, point sources like power plants, petroleum refineries, fertilizer manufacturers, industrial paper mills, copper smelters and iron and steel mills contribute

the majority of sulfur dioxide emissions. Point sources, predominantly electrical utilities and industrial boilers, are also major emitters of nitrogen oxides.

問２．以下の英文はある米国特許の実施形態です。Figure および参考部分を参照して***START***と***END***の間を日本語に訳してください。

参考部分開始

Abstract

A pool cleaning robot may include a housing that has a first fluid opening and a second fluid opening; a filter that comprises a filter core that is at least partially located within the housing and comprises an one or more inlets, an one or more outlets and at least one filtering element positioned between the one or more inlets and the an one or more outlets; and a filter core rotator that is arranged to rotate the filter core during at least one period in which the filter core filters fluid that enters through the one or more inlets to output filtered fluid via the one or more outlets.

参考部分終了

START

FIGS. 1 and 3A illustrate a pool cleaning robot 100 that approaches an underwater station 200 according to an embodiment of the invention. FIG. 3B illustrates a pool cleaning robot 100 that is mounted on an underwater station 200 according to an embodiment of the invention.

The underwater station of FIG. 1 is illustrated as including an erect portion 230, a platform 230 on which the pool cleaning robot can mount, a first contactless charging element 210, and radiation sources 241 and 242. Radiation sources 241 and 242 may be spaced apart from each other and are arranged to emit radiation (such as ultrasonic radiation) that can be detected by sensor 110 of pool cleaning robot 100 and allow the pool cleaning robot 100 to navigate towards the underwater station 200. The pool cleaning

robot 100 may compare between the radiation received from the different radiation sources (241 and 242) and direct itself toward the underwater station 200. The radiation sources 241 and 242 may emit radiation of different frequencies, in different points of time and the like.

The platform 230 is illustrated as including flat surface 221 and rails 222 that ease the mounting of the pool cleaning robot on the flat surface 221. A first contactless charging element 210 may be connected to the platform 220, embedded in the platform 220 or otherwise included in the underwater station 200 and may be used to charge the pool cleaning robot 100 that in turn has a second contactless charging element (denoted 150 in FIGS. 3A and 3B) to facilitate the contactless charging of the pool cleaning robot 100.
END

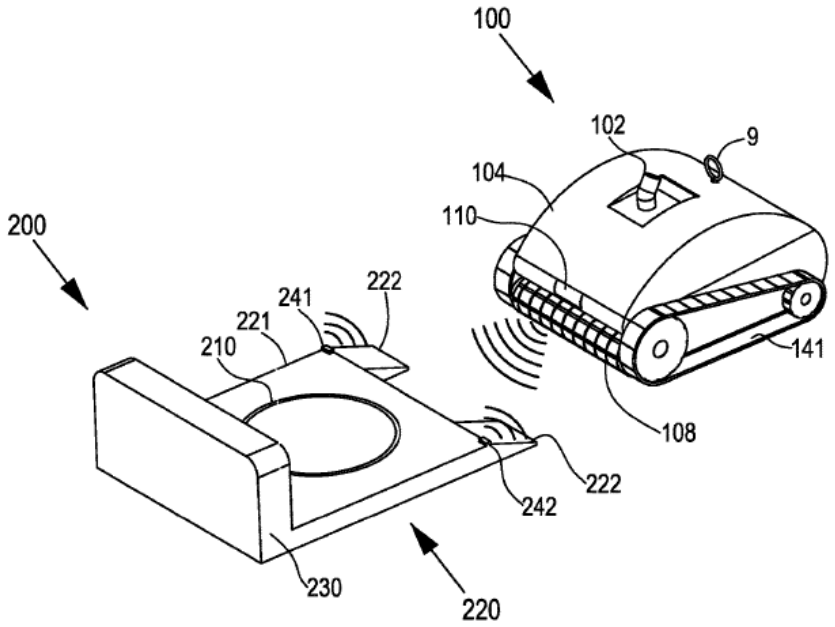

FIG. 1

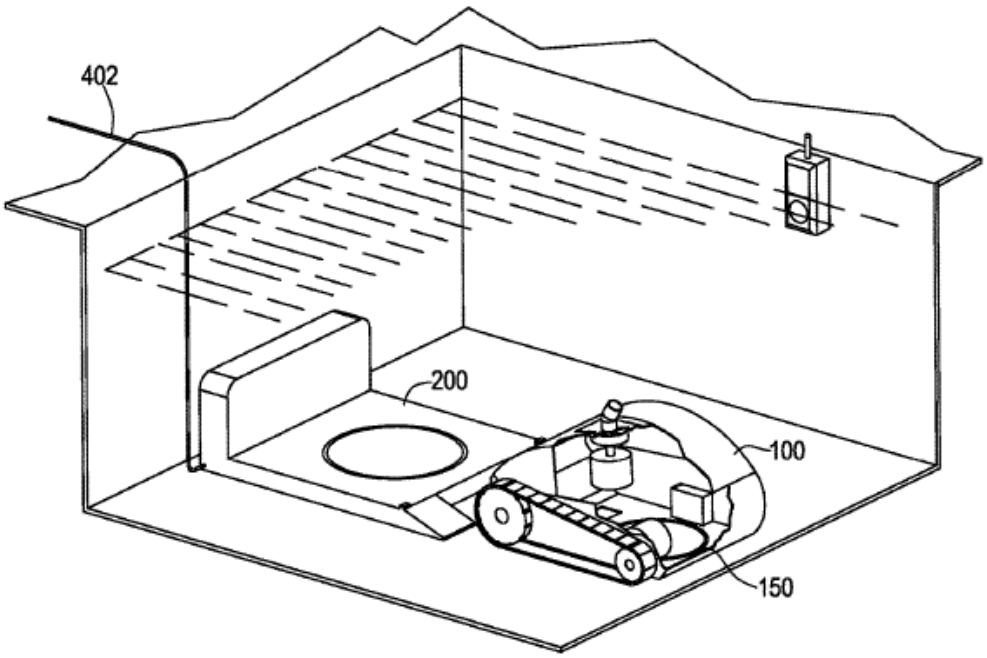

FIG. 3A

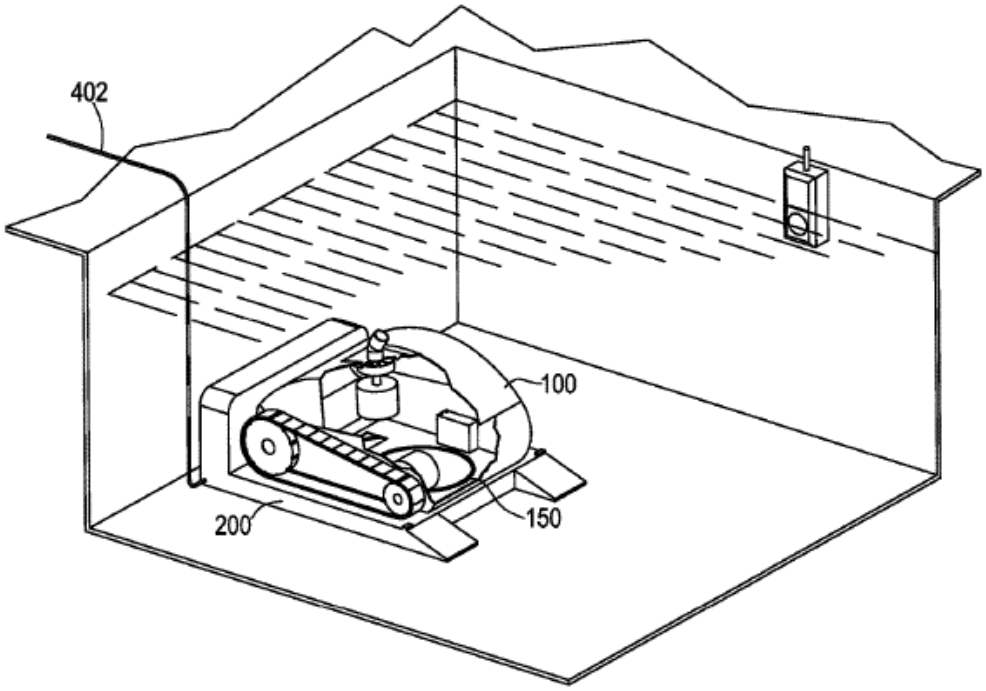

FIG. 3B

問３． 以下はある米国特許の請求項です。エレメントごとに分けてあります。
Figure を参照して和訳してください。
長いエレメントは工夫して、わかりやすい日本語表現を心がけてください。

1. An electric toothbrush comprising:

an elongated body portion (10) having an interior cavity which accommodates a battery (44) and an electric circuit board (50);

a stem member (83) having an elongated cavity (86) with a closed end and an open end, the open end being adjacent to the elongated body portion (10), said elongated cavity (86) having a cone-shaped wall (88) extending from the open end towards the closed end of the elongated cavity (86) such that a cross-sectional area of the elongated cavity (86) gradually decreases from the open end towards a middle point of the elongated cavity (86) which is located between the closed end and the open end, said elongated cavity (86) further having a recessed hole (87) formed at the closed end, wherein the stem member (83) is configured to receive a replaceable brush removably mounted thereon;

a DC motor (60) positioned in the elongated cavity (86) such that a shoulder portion or a side surface of the DC motor (60) is in contact with the cone-shaped wall (88); and

a vibration shaft (70) having one end connected to the DC motor (60) and another end formed with an axial shaft portion (78) which is rotatably inserted into the recessed hole (87), said vibration shaft (70) having an eccentric shaft (73) with a gravity center (G),

wherein a first distance (D1) between the gravity center (G) of the eccentric shaft (73) and the axial shaft portion (78) is less than a second distance (D2) between the shoulder portion of the DC motor (60) and the gravity center (G).

Fig. 2A

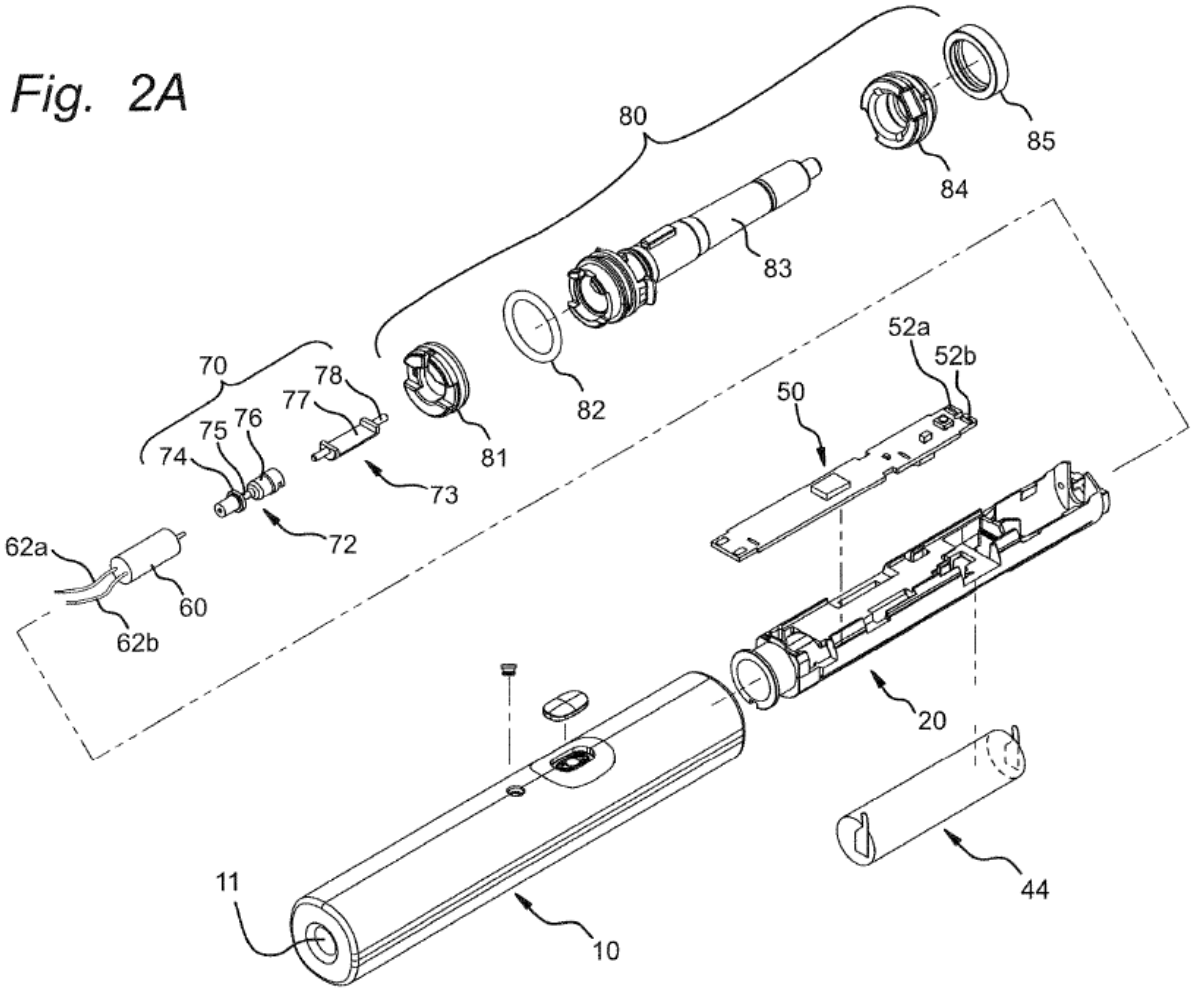
80
85
84
83
82
81
70
78
77
75
76
74
73
72
52a
52b
50
62a
60
62b
20
11
10
44

Fig.2C

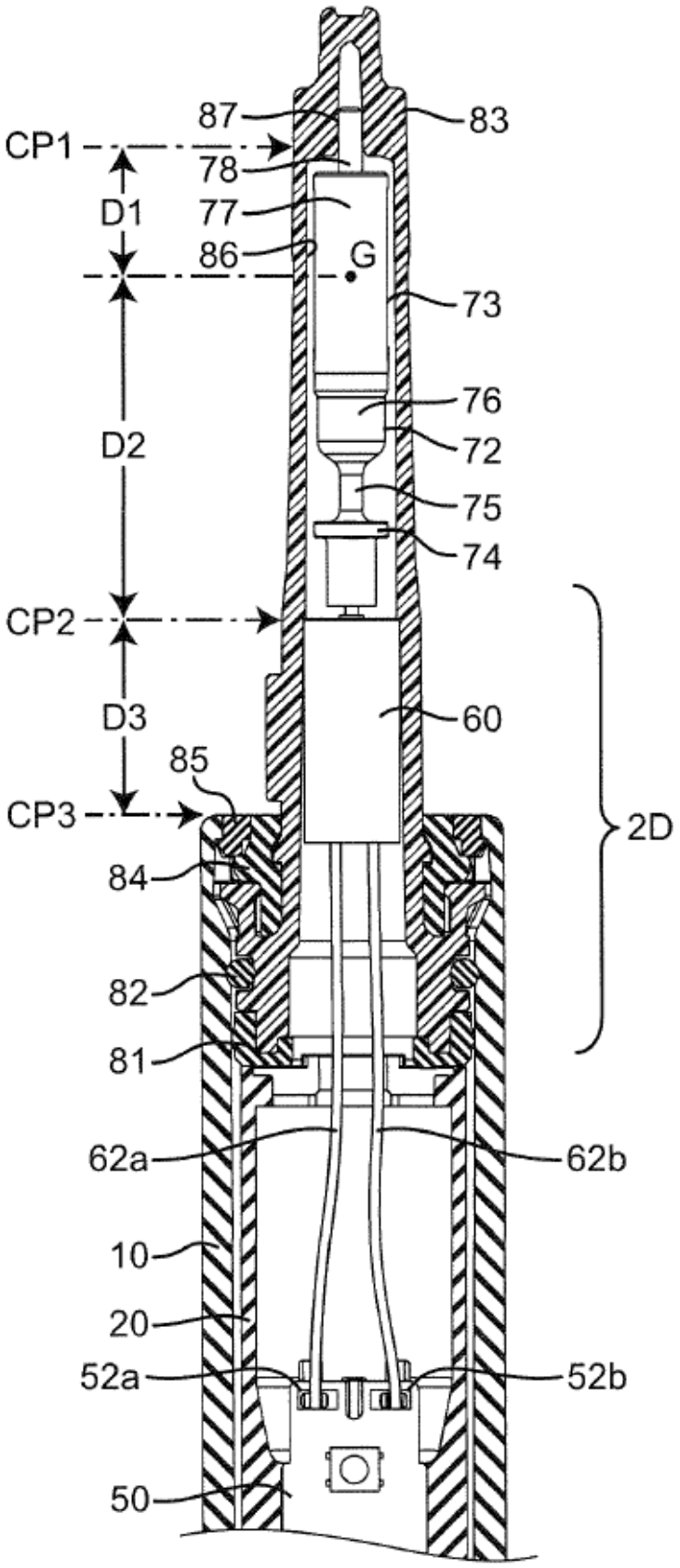
87
83
CP1
78
D1
77
86
G
73
76
D2
72
75
74
CP2
60
D3
85
CP3
2D
84
82
81
62a
62b
10
20
52a
52b
50

Fig.2D