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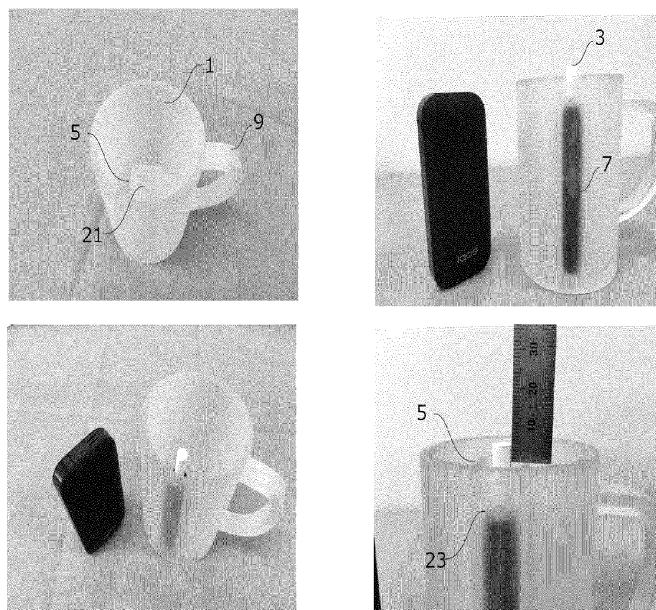
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(54) **ELECTRONIC CIGARETTE SYSTEM**

(57) [Problem] To provide a system for an electronic cigarette such that surrounding people do not notice that the electronic cigarette is being used. [Solution] A system 1 for an electronic cigarette included an attachment part 5 to be attached to at least a portion of an electronic cigarette 3, and a container 9 in which a main body 7 of

the electronic cigarette 3 is placed. The attachment part 5 attaches the main body of the electronic cigarette to the container 9 in such a manner that the main body of the electronic cigarette cannot be seen and the whole or a part of a cartridge attached to the main body of the electronic cigarette protrudes from the container 9.

Fig. 1



## Description

### TECHNICAL FIELD

[0001] The present invention relates to an electronic cigarette system. In more detail, this invention relates to an electronic cigarette system that is designed to keep use of an electronic cigarette unnoticed by surrounding people.

### BACKGROUND ART

[0002] JP-T-2015-523077 discloses an electronic cigarette. An electronic cigarette, compared to a cigarette, not only has a significantly smaller negative effect in terms of smoke and odor emission on surrounding people, but also causes lower health damage and is thus gaining popularity. However, in some cases, it is preferred to keep use of an electronic cigarette unnoticed by surrounding people.

### PRIOR ART DOCUMENTS

#### PATENT DOCUMENTS

[0003] Patent Document 1: JP-T-2015-523077

### DISCLOSURE OF THE INVENTION

#### PROBLEMS TO BE SOLVED BY THE INVENTION

[0004] This invention has an object to provide a system for an electronic cigarette and a device therefor that keep use of an electronic cigarette unnoticed by surrounding people.

#### SOLUTIONS TO THE PROBLEMS

[0005] One aspect of the invention described in this description relates to a system for an electronic cigarette.

[0006] A system for an electronic cigarette 1 includes (1) an attachment part 5 that is to be attached to at least a portion of an electronic cigarette 3 and (2) a container 9 that houses a main body part 7 of the electronic cigarette 3.

[0007] The attachment part 5 attaches the main body part of the electronic cigarette to the container 9 in a manner that the main body part of the electronic cigarette is invisible while a cartridge attached to the main body part of the electronic cigarette entirely or partially comes out of the container 9.

[0008] In one aspect of the system for an electronic cigarette, the container 9 is a beverage can, the attachment part 5 includes a radially inner housing part 13, and the radially inner housing part 13 that is attached to a radially inner portion of an upper portion open end 11 of the beverage can to fix the main body part 7 of the electronic cigarette 3 to the beverage can. Another example

of the container 9 is a cup or a mug.

[0009] One aspect of the invention described in this description relates to an attachment tool 15. The attachment tool 15 may be the attachment part 5 of the system for an electronic cigarette. The attachment tool 15 is for setting a cartridge to be inserted into the electronic cigarette 3 to entirely or partially come out of a beverage can while housing the main body part 7 of the electronic cigarette 3 in the beverage can such that the main body part of the electronic cigarette hides in the beverage can. The attachment tool 15 includes the radially inner housing part 13 that is to be attached to a radially inner portion of an upper portion open end of the beverage can to fix the main body part of the electronic cigarette to the beverage can.

### ADVANTAGEOUS EFFECTS OF THE INVENTION

[0010] This invention allows providing a system for an electronic cigarette and a device therefor that keep use of an electronic cigarette unnoticed by surrounding people.

### BRIEF DESCRIPTION OF THE DRAWINGS

#### [0011]

Fig. 1 includes photographs substituting for a drawing for describing a system for an electronic cigarette.

Fig. 2 is a photograph substituting for a drawing that shows an example of applying the system for an electronic cigarette to a beverage can.

Fig. 3 is a photograph substituting for a drawing that shows an example of applying a mug as a container. Fig. 4 is a photograph substituting for a drawing that shows a lateral view of the system for an electronic cigarette in Fig. 3.

Fig. 5 is a photograph substituting for a drawing that shows a state of the system for an electronic cigarette in Fig. 3 being used.

Fig. 6 is a photograph substituting for a drawing for describing an attachment tool.

### DESCRIPTION OF PREFERRED EMBODIMENTS

[0012] The following describes an embodiment of the present invention using the drawings. The present invention is not limited to the embodiment described below and includes ones appropriately modified in an obvious range by those skilled in the art from the following embodiment.

[0013] One aspect of the invention described in this description relates to a system for an electronic cigarette. This system for an electronic cigarette keeps use of an electronic cigarette unnoticed by surrounding people.

[0014] The electronic cigarette 3 includes an electronic cigarette, which does not use tobacco, and a heated to-

bacco product, which electronically heats tobacco using electricity. Examples of a heated tobacco product include IQOS (registered trademark), glo (registered trademark), and Ploom TECH (registered trademark).

[0015] Fig. 1 includes photographs substituting for a drawing for describing the system for an electronic cigarette. As illustrated in Fig. 1, this system for an electronic cigarette 1 includes an attachment part 5 that is attached to at least a portion of the electronic cigarette 3 and a container 9 that houses a main body part 7 of the electronic cigarette 3. The main body part 7 of the electronic cigarette is attached to the container 9 using the attachment part 5 in a manner that the main body part 7 of the electronic cigarette is invisible while a cartridge (a portion which the user has in an oral cavity and the like to suction the electronic cigarette) to be attached to the main body part of the electronic cigarette entirely or partially comes out of the container 9. The container has an open end in an upper portion. An outer shape of the attachment part 5 is, for example, designed to match an inside diameter of the open end of the container. Therefore, when the attachment part 5 is housed in an upper end portion of the container 9, the attachment part is fixed to the container. Furthermore, the attachment part has a hole 21 that penetrates through inside. The hole 21 is designed to ensure housing the main body part 7 of the electronic cigarette. The attachment part 5 may configure a housing part 23, which includes the hole 21 having a shape that is continuous to a lower portion and houses the main body part 7 of the electronic cigarette. Providing the housing part 23 allows stably housing the electronic cigarette. The presence of the attachment part 5 allows reducing relative displacement between the container 9 and the electronic cigarette 3 during the use of the electronic cigarette.

[0016] In one aspect of the system for an electronic cigarette described above, the container 9 is a beverage can, the attachment part 5 includes a radially inner housing part 13, which is attached to a radially inner portion of an upper portion open end 11 of the beverage can to fix the main body part 7 of the electronic cigarette 3 to the beverage can. Examples of the beverage can include a can that has an appearance of a can that is applied for housing a beverage, such as a juice and a coffee. An inside of the beverage can may be released by what is called a pull tab. Meanwhile, for this invention, a beverage can that has an open end in an upper portion and a cap configured to open and close the open end is preferred. In such a beverage can, it is easy to insert an electronic cigarette from the open end and fix the attachment part to the open end. Although a beverage can made of resin, such as a plastic bottle, may be applied, since the electronic cigarette inside the beverage can becomes visible when the beverage can is transparent, a beverage can that is not transparent is preferred.

[0017] Fig. 2 is a photograph substituting for a drawing that shows an example of using the system for an electronic cigarette with a beverage can. In Fig. 2, an elec-

tronic cigarette can be housed inside a beverage can of a coffee beverage. In the example of Fig. 2, a portion of the cartridge comes out of an upper portion end of the beverage can. By applying this cartridge coming out of the beverage can (by suctioning through the cartridge), the electronic cigarette can be used.

[0018] Another example of the container 9 is a cup or a mug. Fig. 3 is a photograph substituting for a drawing that shows an example of applying a mug as the container. In this example, the attachment part 5 has a shape that can stably house the electronic cigarette. The depth of the attachment part 5 may be designed in consideration of the main body part of the electronic cigarette. The depth of the attachment part 5 may be designed such that a portion of the cartridge portion (a portion that is easy for a user to suction through) comes outside from the container when the electronic cigarette is inserted into the attachment part 5. Fig. 4 is a photograph substituting for a drawing that shows a lateral view of the system for an electronic cigarette in Fig. 3. As illustrated in Fig. 4, seen from outside, the container (mug) seems like an ordinary container. Fig. 5 is a photograph substituting for a drawing that shows a state of the system for an electronic cigarette in Fig. 3 being used. As illustrated in Fig. 5, the use of this system allows smoking of an electronic cigarette to appear as if drinking of coffee or the like were conducted.

[0019] One aspect of this invention described in this description relates to an attachment tool 15. The attachment tool 15 may be the attachment part 5 in the above-described system for an electronic cigarette. The attachment tool 15 houses the main body part 7 of the electronic cigarette 3 in the beverage can and creates a state where the cartridge inserted into the electronic cigarette 3 is entirely or partially coming out of the beverage can so that the main body part of the electronic cigarette is hidden in the beverage can. Furthermore, the radially inner housing part 13 is attached to the radially inner portion of the upper portion open end of the beverage can to fix the main body part of the electronic cigarette to the beverage can.

[0020] Fig. 6 is a photograph substituting for a drawing for describing the attachment tool. Fixing the radially inner housing part 13 to the upper portion open end of the beverage can allows the attachment tool to house the electronic cigarette.

## INDUSTRIAL APPLICABILITY

[0021] This invention can be used in an electronic cigarette industry.

## DESCRIPTION OF REFERENCE SIGNS

[0022]

- 1 system for an electronic cigarette
- 3 electronic cigarette

- 5 attachment part
- 7 main body part of the electronic cigarette
- 9 container
- 11 upper portion open end of a beverage can
- 13 radially inner housing part 5
- 15 attachment tool
- 21 hole
- 23 housing part

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## Claims

1. A system for an electronic cigarette, comprising:

an attachment part that is to be attached to at least a portion of an electronic cigarette; and a container that houses a main body part of the electronic cigarette, wherein the attachment part attaches the main body part of the electronic cigarette to the container in a manner that the main body part of the electronic cigarette is invisible while a cartridge attached to the main body part of the electronic cigarette entirely or partially comes out of the container.

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2. The system for an electronic cigarette according to claim 1, wherein

the container is a beverage can, the attachment part includes a radially inner housing part, and the radially inner housing part is attached to a radially inner portion of an upper portion open end of the beverage can to fix the main body part of the electronic cigarette to the beverage can.

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3. The system for an electronic cigarette according to claim 1, wherein

the beverage can is a cup or a mug.

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4. An attachment tool for setting a cartridge to be inserted into an electronic cigarette to entirely or partially come out of a beverage can while housing a main body part of the electronic cigarette in the beverage can such that the main body part of the electronic cigarette hides in the beverage can, the attachment tool comprising a radially inner housing part that is to be attached to a radially inner portion of an upper portion open end of the beverage can to fix the main body part of the electronic cigarette to the beverage can.

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Fig. 1

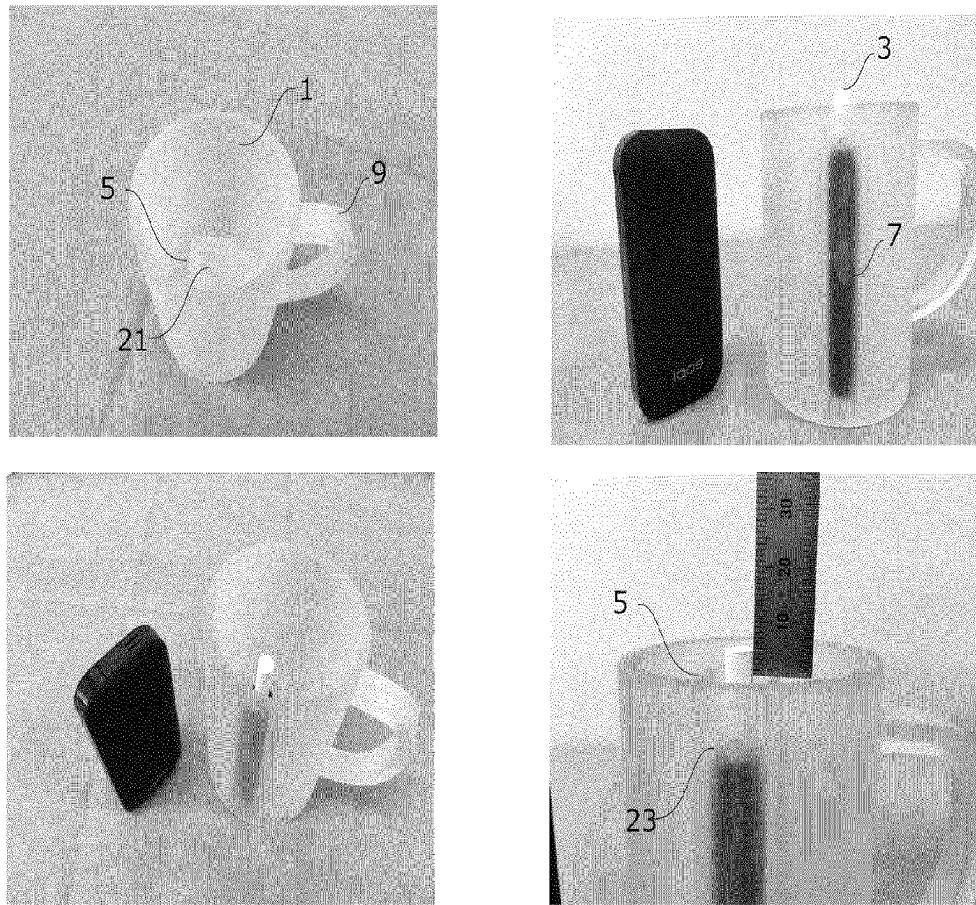


Fig. 2

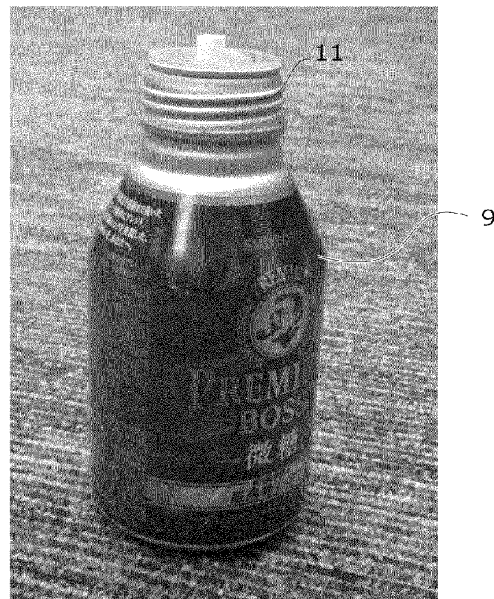


Fig. 3

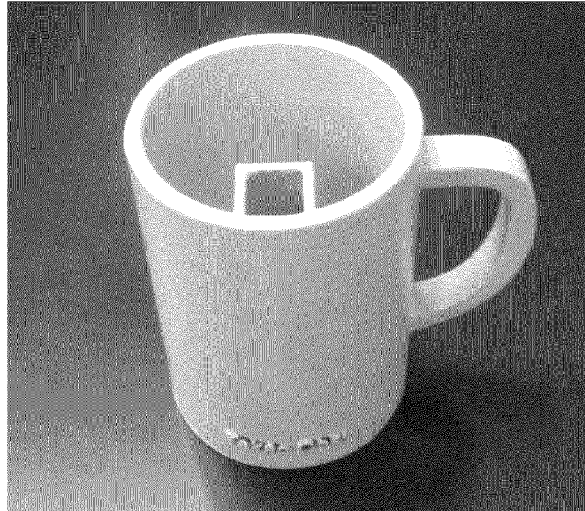


Fig. 4





Fig. 5

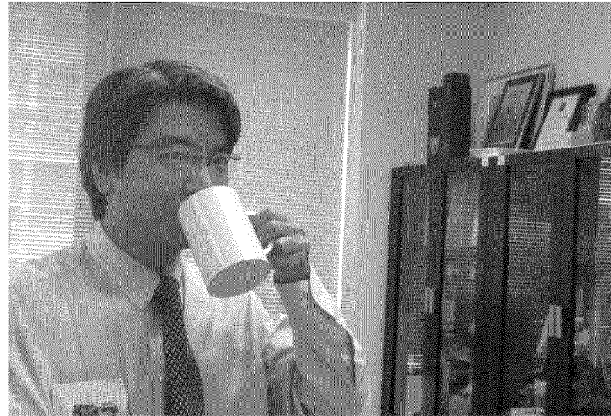
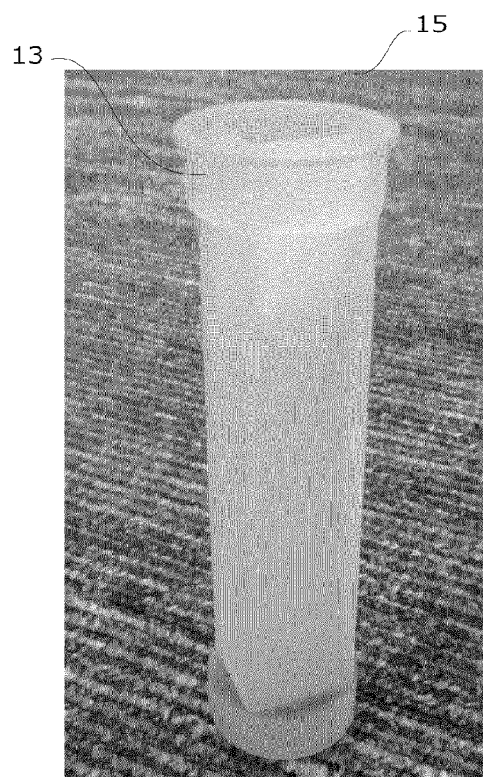


Fig. 6



## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2019/047324

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl. A24F13/12 (2006.01)n, A24F15/01 (2020.01) i  
 FI: A24F47/00, A24F13/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl. A24F13/12, A24F15/01

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Published examined utility model applications of Japan 1922-1996

Published unexamined utility model applications of Japan 1971-2020

Registered utility model specifications of Japan 1996-2020

Published registered utility model applications of Japan 1994-2020

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2008-005767 A (NAGAE, Shinichi) 17.01.2008 (2008-01-17), paragraphs [0017]-[0033], fig. 1-5	1-4
Y	JP 2017-536083 A (PHILIP MORRIS PRODUCTS S.A.) 07.12.2017 (2017-12-07), fig. 1	1-4
Y	WO 2017/141979 A1 (JAPAN TOBACCO INC.) 24.08.2017 (2017-08-24), fig. 1	1-4



Further documents are listed in the continuation of Box C.



See patent family annex.

\* Special categories of cited documents:

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search

10.02.2020

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Japan Patent Office  
 3-4-3, Kasumigaseki, Chiyoda-ku,  
 Tokyo 100-8915, Japan

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/JP2019/047324

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JP 2008-005767 A 17.01.2008 (Family: none)  
  
JP 2017-536083 A 07.12.2017 US 2017/0303595 A1  
fig. 1  
WO 2016/058904 A1  
  
WO 2017/141979 A1 24.08.2017 US 2018/0352864 A1  
fig. 1  
EP 3406147 A1

**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

- JP 2015523077 T [0002] [0003]