

## DESCRIPTION

### 【Invention Title】

### BURNER FOR STOVE

### 【Technical Field】

5       The present invention relates to a burner for a stove.

### 【Background Art】

In the related art, a burner for a stove was proposed in which a burner body is mounted on an upper plate, a burner cap is mounted to the upper end of the burner body, and a holder is placed below the upper plate and holds a gas nozzle, wherein the burner body is assembled with the holder using a locking screw, with the upper plate interposed between the burner body and the holder (referring to Japanese Patent Laid-open Publication No. 2006-526126).

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In the above-mentioned burner for the stove, the central portion of the lower surface of the burner cap faces the upper end of a throat part with a predetermined gap defined between them, a continuous ring-shaped chamber is formed in the throat part, and a plurality of flame ports are formed outside the chamber in such a way that the flame ports are spaced apart from each other in a circumferential direction.

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Thus, when the gas nozzle that is placed below the throat part jets fuel gas into the lower end of an opening of the throat part, primary air is introduced into the lower end of the opening of the throat

part along with the fuel gas, so the primary air is mixed with the fuel gas in the throat part, thereby forming mixed gas. The mixed gas is supplied from the upper end of the throat part to the chamber, and is discharged to the outside through the flame ports. The above-mentioned construction is advantageous in that it can reduce the size and weight of the burner.

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Document of Related Art

Japanese Patent Laid-open Publication No. 2006-526126

**【Disclosure】**

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**【Technical Problem】**

However, the above-mentioned conventional burner is configured such that the burner body is combined with the holder using the locking screw, with the upper plate interposed between the burner body and the holder, so, when an assembly error or a misalignment is made in an assembly of the burner body and the holder, a positional misalignment may be generated between the axis of the gas nozzle and the axis of the throat part, and the positional misalignment may cause insufficient mixing of the fuel gas with the primary air in the throat part, thereby resulting in incomplete combustion of the mixed gas.

Further, when the burner body is removed from the upper plate during a process of cleaning

the burner, it is required to loosen the locking screw so as to disassemble the burner body from the holder, and this causes difficulty. Further, after cleaning the burner, it is required to assemble the burner body with the holder by tightening the locking screw, and this causes difficulty.

Further, in the conventional burner, the location at which the burner body is fastened to the holder using the locking screw is near the flame ports, so high temperature heat generated from the burner body is transferred to the holder, and the gas nozzle held on the holder is heated, thereby causing a change in the bore of the gas nozzle due to thermal expansion, etc. When the bore of the gas nozzle is thermally changed as described above, the gas nozzle may fail to jet the fuel gas at a desired injection rate and may fail to form better combustion.

Accordingly, the present invention has been made keeping in mind the above problems occurring in the related art, and is intended to provide a burner for a stove, which can be easily disassembled when cleaning the burner, can realize better combustion and has a simple construction.

#### **【Technical Solution】**

In order to accomplish the above object, the present invention provides a burner for a stove, including: a burner body including a cylindrical throat part that is vertically formed through a circular base part; a burner cap detachably installed on the burner body, with a plurality of flame ports formed in an outer circumference of the burner cap; and a holder detachably holding the burner body thereon, wherein the holder includes: a base provided with a gas nozzle for jetting fuel gas upward; a support

column extending vertically upward from an edge of the base; a seat plate extending horizontally from the support column such that the seat plate faces the base, the seat plate holding the burner body at a location spaced apart from the base; and a throat insert part formed in the seat plate and receiving therein the throat part of the burner body held by the seat plate, wherein the base and the seat plate are  
5 integrally formed as a single body with the support column interposed between the base and the seat plate.

In the burner for the stove according to the present invention, the process of installing the burner body on the holder can be finished by simply inserting the throat part of the burner body into the throat insert part. Accordingly, the present invention allows for easy assemblage of the burner body  
10 with the holder without using a locking screw unlike the conventional burner, and this prevents a reduction in the assembly precision which may be present in the assembly using the locking screw. Further, the burner body can be easily removed from the holder, so the burner can be easily disassembled for cleaning. Further, the base, the support column and the seat plate of the holder are integrally formed as a single body, so the present invention can efficiently reduce the number of parts  
15 of the burner with its simple construction, thereby reducing the size and weight of the burner.

Further, because the base, the support column and the seat plate of the holder are integrally formed as a single body, the present invention can avoid misalignment of the throat insert part relative to the gas nozzle of the base. In addition, when the throat part of the burner body is inserted into the

throat insert part, a movement of the throat part is limited by the throat insert part. Accordingly, the present invention can avoid misalignment of the throat part relative to the gas nozzle, so when the burner body is set on the holder, the position of the throat part relative to the gas nozzle can be determined precisely, thereby effectively preventing incomplete combustion of mixed gas which may  
5 be caused by misalignment of the throat part relative to the gas nozzle.

Further, the burner body held on the holder is configured such that only the throat part of the burner body comes into contact with the throat insert part that is formed in a part of the seat plate of the holder, so in comparison with a conventional construction in which the burner body is assembled with the holder at a location near the flame ports, the present invention can effectively reduce the heat  
10 transfer from the burner body to the holder, thereby preventing a change in the bore of the gas injection hole due to thermal expansion of the gas nozzle thus realizing better combustion of mixed gas.

Further, in the present invention, the seat plate of the holder may be provided with a cylindrical seat that extends vertically upward from an outer circumference of the throat insert part, wherein the holder holds the burner body by seating the base part of the burner body on the edge of an upper end of  
15 the cylindrical seat.

Because the cylindrical seat is formed in the seat plate of the holder and the burner body is seated on the edge of the upper end of the cylindrical seat, the size of the contact portion between the outer circumference of the throat part of the burner body and the cylindrical seat of the holder can be

minimized. Accordingly, heat transfer from the burner body to the holder can be reduced, thereby preventing a change in the bore of the gas nozzle due to thermal expansion of the gas nozzle.

Further, because the cylindrical seat is formed such that it protrudes upward from the upper surface of the seat plate of the holder, the cylindrical seat can be set such that it protrudes upward from, for example, the upper plate. In the above state, it is easy to see the cylindrical seat with the naked eye when the burner body has been removed from the holder.

Accordingly, when the burner body is set on the holder after cleaning the burner, the throat part of the burner body can be precisely inserted into the throat insert part while seeing the cylindrical seat with the naked eye, so the process of setting the burner body on the holder can be easily performed. Further, due to the cylindrical seat, foreign substances, such as overflowing liquids, cannot be easily introduced into the burner, so the present invention can prevent foreign substances from being stuck to and contaminating the gas nozzle.

Further, in the present invention, the cylindrical seat may include a contact portion that comes into contact with the base part of the burner body and a noncontact portion that is free from contact with the base part of the burner body.

Because the noncontact portion does not come into contact with the base part of the burner body, the size of the contact surface area between the burner body and the holder can be minimized, thereby efficiently reducing the heat transfer to the gas nozzle.

Further, for example, even when liquids overflowing from a cooking pot while cooking flow into the base part of the burner body, the present invention having the reduced size of the contact surface area between the burner body and the holder can prevent the burner body from being fixed to the holder by the food substances. Accordingly, the burner body can be easily disassembled from the holder, so it is easy to disassemble the parts of the burner during a process of cleaning the burner.

Further, in the present invention, the cylindrical seat may be provided with a first engagement part in a part thereof; and the burner body may be provided with a second engagement part in the base part, wherein the second engagement part engages with the first engagement part, thereby determining a position of the burner body relative to the holder. In the present invention, the first engagement part formed in the cylindrical seat may be a notch or a protrusion, as an example, and the second engagement part formed in the base part of the burner body may be a protrusion that can engage with the notch of the cylindrical seat or a notch that can engage with the protrusion of the cylindrical seat.

When the burner body is set on the holder, the second engagement part of the burner body engages with the first engagement part of the cylindrical seat, the present invention can prevent an undesired rotation of the burner body relative to the holder. Accordingly, the present invention can maintain the state of the burner body that is held on the holder at high precision, without using a locking screw unlike the conventional burner.

Further, when the cylindrical seat is formed such that the cylindrical seat passes through an

upper plate of the stove, and when a notch as the first engagement part is formed in the part of the cylindrical seat, and a protrusion as the second engagement part is formed in a part of the base part of the burner body so as to correspond to the notch, a stop wall may be integrally formed in the cylindrical seat such that the stop wall covers an outside edge of the notch. Accordingly, even when liquids overflowing from a cooking pot flow onto the upper plate and flow into the notch of the cylindrical seat, the present invention can stop the spilled liquids, thereby preventing the liquids from being introduced into the stove body.

Further, in the present invention, the support column of the holder may support an ignition plug that can produce an electric discharge to a pilot target protruding from a lower surface of the burner cap, and the burner body may be provided with a recessed part in a cylindrical wall thereof so as to receive at least a part of the ignition plug therein.

Because at least a part of the ignition plug is received in the recessed part of the burner body, the present invention can protect the ignition plug from spilled cooking liquids, thereby efficiently maintaining the desired operation of the ignition plug.

Further, even when the burner body is set on the holder in a state in which the recessed part of the burner body is misaligned from the ignition plug, the ignition plug is caught by the burner body, so the process of setting the burner body on the holder is disturbed, thereby efficiently informing a user of the misalignment of the recessed part from the ignition plug and forcing the user to align the recessed

part with the ignition plug, and avoiding an error in the setting up of the burner body in the holder.

**【Description of Drawings】**

FIG. 1 is a sectional view illustrating a burner for a stove according to the first embodiment of the present invention;

5        FIG. 2 is a bottom view of a burner body;

FIG. 3 is a plan view illustrating the burner for the stove from which a burner cap is removed;

FIG. 4 is a partially exploded perspective view of the burner for the stove;

FIG. 5 is an exploded perspective view in which a burner body is disassembled from a holder;

10       FIG. 6 is a side view illustrating a state in which the burner body interferes with an ignition plug;

FIG. 7 is a plan view illustrating an important part of a burner for a stove according to a second embodiment of the present invention; and

FIG. 8 is a sectional view illustrating the important part of the burner for the stove according to the second embodiment of the present invention.

15       **【Mode for Invention】**

Hereinbelow, embodiments of the present invention will be described with reference to accompanying drawings. In FIG. 1, reference numeral 1 denotes a part (a bottom part) of a stove body of a gas stove. The stove body 1 is a box-shaped body (not shown) having an open top, with an upper

plate 2 seated on the open top of the stove body 1.

The upper plate 2 is provided with a burner seat opening 3, and a burner 4 for a stove is installed such that the burner 4 is exposed upward outside the upper plate 2 through the burner seat opening 3. Further, a burner tripod (not shown) is seated on the upper plate 2 at a location around the burner seat opening 3 so that a cooking utensil, such as a cooking pot, can be put on the burner tripod while cooking by heat.

As shown in FIG. 1, the burner 4 includes a burner body 5 placed above the upper plate 2, a burner cap 6 seated on the burner body 5, and a holder 7 that is placed below the upper plate 2 and supports the burner body 5.

Here, the burner cap 6 is removably seated on the burner body 5, and the burner body 5 is detachably held on the holder 7. Accordingly, it is easy to remove both the burner body 5 and the burner cap 6 from the holder 7, thereby easily disassembling the burner when cleaning the burner.

The burner body 5 includes a circular base part 8, a cylindrical throat part 9 that is vertically formed through the central portion of the base part 8, and a cylindrical wall 10 that is formed by extending upward from the outside edge of the base part 8. The throat part 9 comprises an upper extension 11 that extends upward from the base part 8, and a lower extension 12 that extends downward from the base part 8, wherein the upper and lower ends of throat part 9 are open.

As shown in FIG. 2 that illustrates the burner body 5 in a direction from the bottom, the base

part 8 of the burner body 5 includes a plurality of depressions 13 that are formed around the outer circumference of the lower extension 12, and a protrusion 14 that is formed such that it is contiguous to a part of the lower extension 12. Further, a recessed part 15 is formed in the cylindrical wall 10 of the burner body 5, so an ignition plug 16 can be partially placed in the recessed part 15 as shown in FIGS.

5 1 and 3. The ignition plug 16 will be described later herein.

As shown in FIG. 1, the burner cap 6 includes a seat skirt 17 that is seated on the upper surface of the cylindrical wall 10 of the burner body 5. Various types of grooves having different depths and different sizes are formed in the lower end of the seat skirt 17. Here, the grooves are spaced apart from each other in a circumferential direction of the seat skirt 17.

10 When the burner cap 6 is seated on the burner body 5, the upper end of the burner body 5 is covered with the burner cap 6 in such a way that the lower surface of the burner cap 6 faces the upper end of the upper extension 11 of the throat part 9 with a predetermined gap defined between them. Further, a ring shaped chamber 18 is formed between the upper extension 11 of the throat part 9 and the cylindrical wall 10. Here, when the burner cap 6 is seated on the burner body 5, the grooves that  
15 are formed in the seat skirt 17 of the burner cap 6 form ports in cooperation with the cylindrical wall 10 of the burner body 5, thereby forming a plurality of radial flame ports at locations outside the chamber 18.

Hereinbelow, the structure of the flame ports will be described in brief. As shown in FIGS. 1

and 4, a wide and short groove is formed in the seat skirt 17 of the burner cap 6 at a location corresponding to the recessed part 15, and forms a pilot flame port 19 in cooperation with the cylindrical wall 10 of the burner body 5.

Further, three small-sized grooves are formed at regular intervals in the seat skirt 17 of the burner cap 6 at a location corresponding to each of legs of a burner tripod (not shown). The small-sized grooves form small-sized flame ports 20 in cooperation with the cylindrical wall 10 of the burner body 5, so the present invention can prevent incomplete combustion that may result from contact of flames with the legs of the burner tripod. Further, large-sized grooves and small-sized grooves are alternately formed in the seat skirt 17 of the burner cap 6 at each of locations corresponding to the spaces between the legs of the burner tripod, so the large-sized grooves form normal-sized flame ports 21 in cooperation with the cylindrical wall 10 of the burner body 5, and the small-sized grooves form subsidiary flame ports 22 in cooperation with the cylindrical wall 10 of the burner body 5.

Further, as shown in FIG. 4, a pilot target 23 protrudes from the lower surface of the burner cap 6 at a location corresponding to the recessed part 15 of the cylindrical wall 10 of the burner body 5.

Further, three first positioning pieces 24a extend downward from the lower surface of the burner cap 6 at predetermined locations corresponding to the upper extension 11 of the burner body 5. Here, the first positioning pieces 24a of the burner cap 6 come into contact with the outer circumferential surface of the upper extension 11, thereby positioning the burner cap 6. Due to the first

positioning pieces 24a, the present invention can efficiently prevent misalignment of the burner cap 6 relative to the burner body 5. Further, a second positioning piece 24b extends downward from the lower surface of the burner cap 6 at a predetermined location inside the seat skirt 17. The second positioning piece 24b engages with a positioning depression 25 of the burner body 5, thereby  
5 determining the position of the burner cap 6 on the burner body 5. Accordingly, the present invention can prevent an undesired rotation of the burner cap 6 relative to the burner body 5.

As shown in FIG. 1, the holder 7 includes a base 27 that is installed on a mount 26 of the stove body 1, a support column 28 that extends vertically upward from the edge of the base 27, and a seat plate 29 that is formed as a cantilever part extending horizontally from the support column 28. Here,  
10 the base 27, the support column 28 and the seat plate 29 are integrally formed as a single block made of a metal, such as an aluminum alloy.

A gas channel 30 for supplying fuel gas is formed in the base 27 of the holder 7, and a gas nozzle 31 is installed in the upper part of the base 27. The gas nozzle 31 communicates with the gas channel 30 and is provided with a gas injection hole 32 in an upper end thereof so as to jet the fuel gas  
15 vertically upward.

When the burner body 5 is installed on the holder 7, the throat part 9 is placed above the gas injection hole 32 of the gas nozzle 31 at a location adjacent thereto while being aligned therewith, so the gas nozzle 31 can jet fuel gas into the lower end of an opening of the throat part 9. When the gas

nozzle 31 jets the fuel gas into the lower end of the opening of the lower extension 12 of the throat part 9, atmospheric air as primary air is introduced into the opening of the throat part 9. Accordingly, the fuel gas is mixed with the primary air in the throat part 9, thereby forming mixed gas. The mixed gas is discharged from the upper end of the opening of the upper extension 11 of the throat part 9, and reaches the lower surface of the burner cap 6. When the mixed gas has reached the lower surface of the burner cap 6, the mixed gas passes through the gap between the upper end of the upper extension 11 and the lower surface of the burner cap 6, and spreads along the lower surface of the burner cap 6 in radial directions. Thereafter, the mixed gas is evenly distributed to the flame ports from the chamber 18.

As shown in FIGS. 3 and 5, a plug support 33 is integrally formed in the support column 28 of the holder 7. The plug support 33 supports an ignition plug 16 that ignites the mixed gas by producing an electric discharge to the pilot target 23 of the burner cap 6. The plug support 33 also supports a thermocouple 34 that is placed outside the burner body 5 and detects the flame.

As shown in FIGS. 1 and 5, the seat plate 29 is provided with a throat insert part 35 into which the lower extension 12 of the throat part 9 of the burner body 5 is removably inserted. A ring-shaped cylindrical seat 36 is formed on the seat plate 29 by extending upward from the edge of the throat insert part 35 of the seat plate 29. Here, both the throat insert part 35 and the cylindrical seat 36 continuously extend with the same inner diameter, and the upper end of the outer circumferential surface of the

lower extension 12 comes into linear contact with the upper end of the inner circumferential surface of the cylindrical seat 36. Further, as shown in FIG. 1, the cylindrical seat 36 of the seat plate 29 protrudes upward from the upper plate 2 after passing through the burner seat opening 3 of the upper plate 2, and the upper surface of the seat plate 29 comes into contact with the lower surface of the upper plate 2.

5 Although it is not shown in the accompanying drawings, the seat plate 29 is assembled with the upper plate 2 using a locking screw. Further, when the upper plate 2 is mounted after the stove body 1 has been installed on a countertop, the cylindrical seat 36 sets the position of the upper plate 2, so the present invention can efficiently position the upper plate 2.

As shown in FIGS. 1 and 5, the cylindrical seat 36 is provided with a notch 37. Accordingly,  
10 when the burner body 5 is mounted to the holder 7, the lower extension 12 of the burner body 5 is inserted into the throat insert part 35 of the seat plate 29 such that the base part 8 of the burner body 5 can be seated on the upper end of the cylindrical seat 36 of the seat plate 29 in a state in which the protrusion 14 of the burner body 5 engages with the notch 37. Here, the protrusion 14 and the notch 37 function as first and second engagement parts of the present invention, respectively.

15 Accordingly, the phase and the axis of the burner body 5 relative to the holder 7 are determined, and the position of the throat part 9 relative to the gas nozzle 31 can be determined. Further, the position of the recessed part 15 of the burner body 5 is determined so as to be aligned with the ignition plug 16. Here, the base 27, the support column 28 and the seat plate 29 of the holder 7 are

integrally formed as a single block made of a metal, so the present invention can avoid misalignment of the throat insert part 35 relative to the gas nozzle 31 that is installed on the base 27. Further, the lower extension 12 of the throat part 9 of the burner body 5 is inserted into the throat insert part 35, so the present invention prevents misalignment of the lower extension 12 of the throat part 9 relative to the gas nozzle 31. Accordingly, when the burner body 5 is installed on the holder 7, the position of the throat part 9 relative to the gas nozzle 31 can be determined at high precision, thereby efficiently preventing incomplete combustion of mixed gas which may be caused by misalignment of the throat part 9 relative to the gas nozzle 31.

However, when high temperature heat of the burner body 5 is transferred to the gas nozzle 31, the bore of the gas injection hole 32 may be changed due to thermal expansion of the gas nozzle 31, so the gas nozzle 31 may fail to jet fuel gas at a desired injection rate and may fail to form better combustion. In the present invention, the base 27, the support column 28 and the seat plate 29 of the holder 7 are integrally formed as a single body, so the present invention is advantageous in that it can efficiently reduce the number of parts of the burner and can realize compactness of the burner. However, heat of the burner body 5 may be transferred to the gas nozzle 31 of the base 27 through the seat plate 29 and the support column 28 of the holder 7.

To solve the problem, the embodiment of the present invention is configured such that the lower end of the outer circumference of the lower extension 12 of the throat part 9 which is placed at a

location relatively remote from the cylindrical wall 10 that forms the flame ports in the burner body 5 comes into linear contact with the upper end of the inner circumference of the cylindrical seat 36 that is formed in the seat plate 29 of the holder 7, and the seat plate 29 of the holder 7 is placed at a location spaced apart from the flame ports of the burner body 5. Thus, in comparison with a conventional construction in which the burner body is assembled with the holder at a location near the flame ports, the embodiment of the present invention can efficiently reduce the heat transfer from the burner body 5 to the holder 7. Further, the burner body 5 that is set on the holder 7 is seated on the edge of the upper end of the cylindrical seat 36 that is formed in the seat plate 29 of the holder 7, so the size of a contact portion between the burner body 5 and the holder 7 can be minimized to a desired extent. Accordingly, the heat transfer from the burner body 5 to the gas nozzle 31 can be desirably reduced, and a change in the bore of the gas injection hole 32 due to thermal expansion of the gas nozzle 31 can be prevented.

Further, in the base part 8 of the burner body 5, a plurality of depressions 13 are formed around the circumference of the lower extension 12, as shown in FIG. 2. Accordingly, both contact portions 36a that come into contact with the base part 8 of the burner body 5 and noncontact portions 36b that are free from contact with the base part 8 of the burner body 5 due to the depressions 13 of the burner body 5 are formed around the edge of the upper end of the cylindrical seat 36 (see the dot-and-dash in FIG. 2). Thus, the present invention can further reduce the size of the contact surface area between the burner body 5 and the holder 7, thereby efficiently minimizing the heat transfer from the burner body 5

to the gas nozzle 31 and preventing a thermal change in the bore of the gas injection hole 32, and realizing better combustion. Further, due to the reduced contact surface area, the present invention can prevent the burner body 5 from being fixed to the holder 7 by spilled food liquids even when liquids overflowing from a cooking pot while cooking flow into the base part 8 of the burner body 5, thereby  
5 allowing a user to easily disassemble the parts of the burner when cleaning the burner. In the embodiment of the present invention, the noncontact portions 36b are formed by forming the depressions 13 in the base part 8 of the burner body 5. However, it should be understood that the noncontact portions may be formed by forming a plurality of notches in the upper end of the cylindrical seat 36 while making the base part 8 of the burner body 5 flat.

10 Further, the present invention is configured such that, among the parts of the holder 7, only the cylindrical seat 36 that is formed in the seat plate 29 of the holder 7 protrudes upward outside the upper plate 2, so it is easy to see the cylindrical seat 36 with the naked eye in a state in which the burner body 5 has been removed from the holder 7. Accordingly, when the burner body 5 is set on the holder 7 after cleaning the burner, the lower extension 12 of the burner body 5 can be precisely inserted into the  
15 throat insert part 35 through the cylindrical seat 36, so the process of setting the burner body 5 on the holder 7 can be easily performed. Further, in the present invention, the assembly of the burner body 5 with the holder 7 can be finished by simply inserting the lower extension 12 of the burner body 5 into the throat insert part 35 with the interposition of the cylindrical seat 36 protruding upward from the

upper plate 2, so the present invention allows for easy assemblage of the burner body 5 with the holder 7 without using a locking screw unlike the conventional burner, and this prevents a reduction in the assembly precision which may be caused in the assembly using the locking screw.

Further, when the burner body 5 is set on the holder 7, the protrusion 14 of the burner body 5 engages with the notch 37 of the cylindrical seat 36, thereby preventing an undesired rotation of the burner body 5 on the holder 7.

However, while cooking using the gas stove, liquids may overflow from a cooking pot onto the upper plate 2 and may flow downward from the burner body 5 to the cylindrical seat 36. In the above state, the overflowing liquids may be introduced into the throat insert part 35 through the notch 37 that is formed in the cylindrical seat 36 of the holder 7, and this may cause a problem in that liquids are introduced into the interior of the stove body 1.

To prevent the introduction of overflowing liquids into the stove body 1, it is preferred to form a stop wall 38 in the cylindrical seat 36 such that the stop wall 38 can cover the outside edge of the notch 37, as shown in FIGS. 7 and 8. Due to the stop wall 38 that covers the outside edge of the notch 37, the present invention can stop liquids overflowing from the upper plate 2, thereby preventing the introduction of food liquids into the stove body 1.

Further, when the stop wall 38 is formed in the cylindrical seat 36, it is preferred to determine the height of the stop wall 38 such that a small-sized gap x (for example, about 0.5mm) can be formed

between the upper end of the stop wall 38 and the base part 8 of the burner body 5, as shown in FIG. 8.

Due to the determination of the height of the stop wall 38, the present invention can prevent an increase in the contact surface area between the burner body 5 and the holder 7, thereby avoiding a reduction in the operational effect of the noncontact portions 36b formed by the depressions 13.

5 Further, although it is not shown in the accompanying drawings, a protrusion may be formed in the cylindrical seat 36 and a notch may be formed in the burner body 5 so as to engage with the protrusion of the cylindrical seat 36.

Further, as shown in FIG. 1, the recessed part 15 of the burner body 5 is configured to receive therein at least a part of the ignition plug 16. Due to the above-mentioned recessed part 15, even when  
10 the burner body 5 is set on the holder 7 in a state in which the recessed part 15 of the burner body 5 is misaligned from the ignition plug 16, the ignition plug 16 is caught by the burner body 5 as shown in FIG. 6, thereby efficiently informing a user of the misalignment of the recessed part 15 from the ignition plug 16 and forcing the user to align the recessed part 15 with the ignition plug 16, and avoiding an error in the setting of the burner body 5.

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#### Description of Reference Characters

|                     |                |
|---------------------|----------------|
| 1: burner for stove | 5: burner body |
| 6: burner cap       | 7: holder      |

8: base part

9: throat part

14: protrusion

15: recessed part

16: ignition plug

19, 20, 21, 22: flame ports

23: pilot target

27: base

5

28: support column

29: seat plate

31: gas nozzle

35: throat insert part

36: cylindrical seat

36a: contact portion

36b: noncontact portion 37: notch

38: stop wall

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## CLAIMS

1. A burner for a stove, comprising:

a burner body including a cylindrical throat part that is vertically formed through a circular base part;

5 a burner cap detachably installed on the burner body, with a plurality of flame ports formed in an outer circumference of the burner cap; and

a holder detachably holding the burner body thereon, wherein

the holder comprises:

a base provided with a gas nozzle for jetting fuel gas upward;

10 a support column extending vertically upward from an edge of the base;

a seat plate extending horizontally from the support column such that the seat plate faces the base, the seat plate holding the burner body at a location spaced apart from the base; and

a throat insert part formed in the seat plate and receiving therein the throat part of the burner body held by the seat plate, wherein

15 the base and the seat plate are integrally formed as a single body with the support column interposed between the base and the seat plate.

2. The burner for the stove as set forth in claim 1, wherein

the seat plate of the holder is provided with a cylindrical seat that extends vertically upward from an outer circumference of the throat insert part, wherein the holder holds the burner body by seating the base part of the burner body on an edge of an upper end of the cylindrical seat.

3. The burner for the stove as set forth in claim 2, wherein

5 the cylindrical seat includes a contact portion that comes into contact with the base part of the burner body and a noncontact portion that is free from contact with the base part of the burner body.

4. The burner for the stove as set forth in claim 2, wherein

the cylindrical seat is provided with a first engagement part in a part thereof; and

10 the burner body is provided with a second engagement part in the base part, wherein the second engagement part engages with the first engagement part, thereby determining a position of the burner body relative to the holder.

5. The burner for the stove as set forth in claim 4, wherein

15 the cylindrical seat is formed such that the cylindrical seat passes through an upper plate of the stove, wherein

when a notch as the first engagement part is formed in the part of the cylindrical seat, and a protrusion as the second engagement part is formed in a part of the base part of the burner body so as to correspond to the notch, a stop wall is integrally formed in the cylindrical seat

such that the stop wall covers an outside edge of the notch.

6. The burner for the stove as set forth in claim 1, wherein

the support column of the holder supports an ignition plug that can produce an electric discharge to a pilot target protruding from a lower surface of the burner cap, and

5 the burner body is provided with a recessed part in a cylindrical wall thereof so as to receive at least a part of the ignition plug therein.