(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 4 428 293 A1**

# (12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
**11.09.2024 Bulletin 2024/37**

(21) Application number: **24162628.2**

(22) Date of filing: **11.03.2024**

(51) International Patent Classification (IPC):
***D06F 75/12*** *(2006.01)* ***D06F 79/02*** *(2006.01)*

(52) Cooperative Patent Classification (CPC):
**D06F 75/12; D06F 79/02**

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR**
Designated Extension States:
**BA**
Designated Validation States:
**GE KH MA MD TN**

(30) Priority: **09.03.2023 CN 202310228271**

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## (54) IRONING MACHINE AND COVER PLATE FOR IRONING MACHINE

(57) The present application relates to the technical field of ironing machine and provides an ironing machine and a cover plate for the ironing machine. The ironing machine includes a main body, an iron and a cover plate. The main body is provided with a steam generator and formed with a mounting slot. The iron is accommodatable in the mounting slot. The cover plate is switchable between a closed state and an open state; in the closed state, the cover plate is connected to the main body to cover the mounting slot; in the open state, the cover plate leaves the main body to form an ironing plane. According to the ironing machine of the present application, by switching the cover plate between the closed state and the open state, the cover plate plays a dust-proof role and closes the mounting slot to prevent the user from touching the high-temperature iron from getting burned when it is in the closed state; the cover plate may serve as a working plane for the ironing machine, making it convenient for users to iron clothes when the cover plate is in the open state.

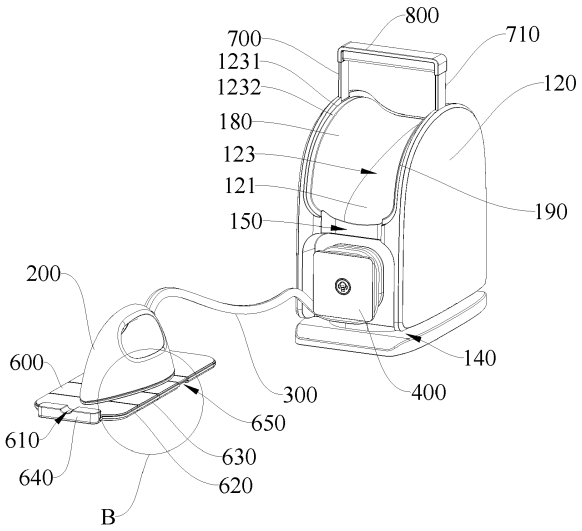


FIG. 2

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## Description

### FIELD

**[0001]** The present application relates to the field of ironing machine, and in particular to an ironing machine and a cover plate for the ironing machine.

### BACKGROUND

**[0002]** With the development of science and technology, ironing machine has become more and more popular in daily life. However, the temperature generated by the ironing machine in normal operation is relatively high, and it is easy for a user to mistouch a high-temperature iron when the high-temperature iron is stored in a main body of the ironing machine just after ironing since the iron of the ironing machine on the market is designed to be exposed, which may cause burns. Therefore, it is necessary to further improve the traditional ironing machine.

### SUMMARY

**[0003]** The present application aims to solve at least one of the problems in the related art. The present application provides an ironing machine and a cover plate for the ironing machine that are simple in structure, easy to use for ironing, and convenient to store.

**[0004]** An ironing machine according to an embodiment of the present application includes:

a main body provided with a steam generator and formed with a mounting slot;
an iron accommodatable in the mounting slot; and
a cover plate switchable between a closed state and an open state, where in the closed state, the cover plate is connected to the main body to cover the mounting slot; and in the open state, the cover plate leaves the main body to form an ironing plane.

**[0005]** According to the ironing machine of the embodiment of the present application, by switching the cover plate between the closed state and the open state, the cover plate plays a dust-proof role and closes the mounting slot to prevent the user from touching the high-temperature iron from getting burned when it is in the closed state; and the cover plate may serve as a working plane for the ironing machine, making it convenient for users to iron clothes when the cover plate is in the open state.

**[0006]** According to an embodiment of the present application, the cover plate is made of an elastically deformable material, and is deformed to match a notch of the mounting slot in the closed state; and/or,
the cover plate includes at least two plate bodies, and in the closed state, a predetermined angle is formed between adjacent plate bodies to match the cover plate with a notch of the mounting slot.

**[0007]** According to an embodiment of the present application, the cover plate is provided with a first mounting portion, the notch of the mounting slot is provided with a second mounting portion, and in the closed state, the first mounting portion is at least partially engaged with the second mounting portion.

**[0008]** According to an embodiment of the present application, the cover plate is a silicone cover plate.

**[0009]** According to the ironing machine of the embodiment of the present application, when the cover plate includes at least two plate bodies,

a connecting portion is provided between adjacent plate bodies, or
the cover plate further includes a flexible connecting layer, and all the plate bodies are arranged side by side along the flexible connecting layer.

**[0010]** According to an embodiment of the present application, a first magnetic attraction portion is provided on an edge of the cover plate, and a second magnetic attraction portion is provided correspondingly on an edge of the mounting slot; in the closed state, the first magnetic attraction portion is attracted to the second magnetic attraction portion.

**[0011]** According to an embodiment of the present application, the mounting slot is shaped to a shape of the iron, and in the closed state, an outer surface of the cover plate is flush with an outer surface of the main body.

**[0012]** According to an embodiment of the present application, a first end of the cover plate is provided with a first buckle portion, and the main body is provided with a first mounting port; in the closed state, the first buckle portion partially enters the first mounting port, and a buckle slot is formed between the main body and an end surface of the first buckle portion.

**[0013]** According to an embodiment of the present application, a second end of the cover plate is provided with a second buckle portion, and the main body is provided with a second mounting port; in the closed state, the second buckle portion partially enters the second mounting port, and a buckle slot is formed between the main body and an end surface of the second buckle portion.

**[0014]** According to an embodiment of the present application, in the closed state, a pipe-passing slot is formed between the first buckle portion and the first mounting port, and is configured to pass a steam guide pipe of the iron.

**[0015]** According to an embodiment of the present application, a handle is provided on the top of the main body, and the main body includes a first wall surface and a second wall surface oppositely arranged, both the first wall surface and the second wall surface are recessed to form the mounting slot, a first pull rod is provided on the top of the first wall surface, and a second pull rod is provided on the top of the second wall surface, both the first pull rod and the second pull rod are movably connected to the main body, and the handle is connected to the first pull rod and the second pull rod.

**[0016]** According to an embodiment of the present application, the cover plate is provided with an avoidance port, and in the closed state, the handle is at least partially located in the avoidance port.

**[0017]** According to an embodiment of the present application, the main body includes the first wall surface and the second wall surface arranged oppositely, both the first wall surface and the second wall surface are recessed to form the mounting slot, the top of the first wall surface is rotatably connected with a first handle, and the top of the second wall surface is rotatably connected with a second handle, and both the first handle and the second handle are switchable between a lifting position and an avoidance position of the cover plate.

**[0018]** According to an embodiment of the present application, the ironing machine includes:

a steam guide pipe, where a first end of the steam guide pipe is connected to the steam generator, and a second end of the steam guide pipe is connected to the iron;

an interactive panel connected to the main body through a winding column, where the winding column is configured to retract the steam guide pipe, an edge of the interactive panel protrudes relative to the winding column to form a blocking portion, an annular slot is formed between the blocking portion, the winding column and the main body, and the steam guide pipe is arranged around the annular slot.

**[0019]** A cover plate for an ironing machine according to an embodiment of the present application, the cover plate has a closed state and an open state; in the closed state, the cover plate is configured to cover a mounting slot of the ironing machine for accommodating an iron; in the open state, the cover plate leaves the ironing machine to form an ironing plane.

**[0020]** Additional aspects and advantages of the present application will be set forth in part in the description which follows and, in part, will be apparent from the description, or may be learned by practice of the present application.

## BRIEF DESCRIPTION OF DRAWINGS

**[0021]** In order to clearly illustrate the solutions according to the present application or the related art, the accompanying drawings used in the description of the embodiments of the present application or the related art are briefly introduced below. It should be noted that the drawings in the following description are of only part embodiments of the present application. For those of ordinary skill in the art, other drawings may also be obtained according to these drawings without creative efforts.

FIG. 1 is a first schematic structural diagram of an ironing machine according to an embodiment of the present application, in which the cover plate is in a closed state;

FIG. 2 is a second schematic structural diagram of an ironing machine according to an embodiment of the present application, in which the cover plate is in an open state;

FIG. 3 is a partial enlarged view of B in FIG. 2;

FIG. 4 is a cross-sectional view of an ironing machine according to an embodiment of the present application; and

FIG. 5 is a partial enlarged view of A in FIG. 4.

**[0022]** Reference numerals:

100 main body; 120 mounting seat; 121 supporting surface; 122 limiting surface; 123 mounting slot; 1231 notch; 1232 second mounting portion; 130 mounting cavity; 140 groove; 150 first mounting port; 160 buckle slot; 170 second magnetic attraction portion; 180 first wall surface; 190 second wall surface;
200 iron;
300 steam guide pipe;
400 interactive panel; 410 blocking portion;
500 winding column; 510 annular slot;
600 cover plate; 610 pipe-passing slot; 620 plate body; 630 first mounting portion; 631 first magnetic attraction portion; 640 first buckle portion; 650 avoidance port; 660 flexible connecting layer;
700 first pull rod; 710 second pull rod;
800 handle.

## DETAILED DESCRIPTION OF THE EMBODIMENTS

**[0023]** Implementations of the present application are further described in detail below with reference to the drawings and embodiments. The following embodiments are used to illustrate the present application, but are not to limit the scope of the present application.

**[0024]** In the description of the present application, it should be noted that, the orientation or positional relations specified by terms such as "central", "longitudinal", "lateral", "up", "down", "front", "back", "left", "right", "vertical", "horizontal", "top", "bottom", "inner", "outer" and the like, are based on the orientation or positional relations shown in the drawings, which is merely for convenience of description of the present application and to simplify description, but does not indicate or imply that the stated devices or components must have a particular orientation and be constructed and operated in a particular orientation, and thus it is not to be construed as limiting the present application. Furthermore, the terms "first", "second", "third" and the like are only used for descriptive purposes and should not be construed as indicating or implying a relative importance.

**[0025]** In the description of the present application, it should be noted that unless explicitly specified and defined otherwise, the terms "connected to" and "connected" shall be understood broadly, for example, it may be either fixedly connected or detachably connected, or can

be integrated; it may be either mechanically connected, or electrically connected; it may be either directly connected, or indirectly connected through an intermediate medium. The specific meanings of the terms above in the present application can be understood by a person skilled in the art in accordance with specific conditions.

**[0026]** In the embodiments of the present application, unless otherwise expressly specified and defined, a first feature is "on" or "under" a second feature can refer to that the first feature is directly contacted with the second feature, or the first feature is indirectly contacted with the second feature through an intermediate medium. In addition, the first feature is "on", "above" and "over" the second feature can refer to that the first feature is directly above or obliquely above the second feature, or simply refer to that the level height of the first feature is higher than that of the second feature. A first feature is "under", "below" and "beneath" a second feature can refer to that the first feature is directly below or obliquely below the second feature, or simply refer to that the level height of the first feature is lower than that of the second feature.

**[0027]** In the description of this specification, description with reference to the terms "an embodiment", "some embodiments", "an example", "specific example", "some examples" and the like, refers to that specific features, structures, materials or characteristics described in combination with an embodiment or an example are included in at least an embodiment or example according to the embodiments of the present application. In this specification, schematic representations of the above terms are not necessarily directed to a same embodiment or example. Furthermore, the particular features, structures, materials or characteristics described can be combined in any suitable manner in any one or more embodiments or examples. In addition, those skilled in the art may combine the different embodiments or examples described in this specification, as well as the features of the different embodiments or examples, without conflicting each other.

**[0028]** According to an ironing machine of an embodiment of the present application, as shown in FIG. 1 and FIG. 2, the ironing machine includes a main body 100, an iron 200 and a cover plate 600. The main body 100 is provided with a steam generator (not shown in the figure) and formed with a mounting slot 123. The iron 200 is accommodatable in the mounting slot 123. The cover plate 600 is switchable between a closed state and an open state. In the closed state, as shown in FIG. 1, the cover plate 600 is connected to the main body 100 to cover the mounting slot 123 (in FIG. 1, because the cover plate 600 is closed, the mounting slot 123 is not visible); in the open state, as shown in FIG. 2, the cover plate 600 leaves the main body 100 to form an ironing plane and the mounting slot 123 is open.

**[0029]** According to the ironing machine of the embodiment of the present application, the cover plate 600 is switchable between the closed state and the open state. In the closed state, the cover plate 600 may protect the iron 200 and play a dust-proof role. In addition, when the ironing is finished, the temperature of the iron 200 is still very high, and the cover plate 600 covers and seals the mounting slot 123, which can prevent the user from accidentally touching it. The ironing machine is safer and can prevent the user from being scalded. When the cover plate 600 is in the open state, the cover plate 600 can directly serve as a working plane for the iron 200 to iron, and the user does not need to consider the ironing plane, which facilitates the user to iron clothes. The cover plate integrates two functions into one and can act as a protective shell in the closed state and act as an ironing plane in the open state. It is very convenient and users do not need to find another ironing plane to iron.

**[0030]** According to an embodiment of the present application, the cover plate 600 is made of an elastically deformable material. In the closed state, the cover plate 600 is deformed to match a notch 1231 of the mounting slot 123. It can be understood that the elastically deformable material of the cover plate 600 may be plastic, silicone, etc. The elastically deformable material is not limited to the examples here, and can also be other materials, as long as the cover plate 600 can match the notch 1231.

**[0031]** According to an embodiment of the present application, the cover plate 600 includes at least two plate bodies 620 arranged side by side; in the closed state, a set angle is formed between the adjacent plate bodies 620, and the shape of the cover plate 600 matches with the shape of the notch 1231 of the mounting slot 123.

**[0032]** It can be understood that the cover plate 600 includes several plate bodies 620 arranged side by side. When the shape of the notch 1231 of the mounting slot 123 is a curved surface, the several plate bodies 620 form an approximate curved surface shape to match the notch 1231 of the mounting slot 123 in the closed state. The more the plate bodies 620 are, the better the cover plate 600 matches with the shape of the curved slots 1231. The notch 1231 of the mounting slot 123 can also be a flat surface and all the plate bodies 620 are located on the same plane to match the shape of the notch 1231.

**[0033]** In an embodiment, when the cover plate is in the open state, all the plate bodies 620 are located on the same plane. The cover plate 600 can directly serve as a working plane of the iron 200 to facilitate the user to iron clothes.

**[0034]** According to an embodiment of the present application, when the cover plate includes at least two plate bodies, a connecting portion (not shown in the figure) is provided between adjacent plate bodies.

**[0035]** It can be understood that the connecting portion can be a hinge between two adjacent plate bodies, and the plate bodies 620 arranged side by side are hinged. When the cover plate 600 is in the closed state, the plate bodies 620 can rotate at a certain angle through the hinge. A predetermined angle is formed between adjacent plate bodies 620 to match the shape of the cover plate 600 with the notch 1231 of the mounting slot 123.

**[0036]** The connecting portion can also be a deformable flexible connecting portion. When the cover plate 600 is in the closed state, the flexible connecting portion can be bent, and the cover plate 600 can match the notches 1231 of different shapes. The flexible connecting portion may be fiber textiles, such as cloth, hemp rope and other fiber products, or may be silicide, such as silicone. The flexible connecting portion is not limited to the examples here.

**[0037]** In an embodiment, the lower edges of the contact side walls between adjacent plate bodies 620 are hinged (not shown in the figure). Since the plate bodies 620 have a certain thickness, the contact side walls between adjacent plate bodies 620 will play a supporting role. When the cover plate 600 is in the open state, all the plate bodies 620 can play a supporting role through the contact side walls between adjacent plate bodies 620 to keep several plate bodies 620 on the same plane and have a certain degree of rigidity.

**[0038]** According to an embodiment of the present application, the cover plate 600 further includes a flexible connecting layer 660; the plate bodies 620 are fixed to the flexible connecting layer 660, and all the plate bodies 620 are arranged side by side along a length direction of the flexible connecting layer 660. It can be understood that the flexible connecting layer 660 can be fiber textiles, such as cloth, hemp rope and other fiber products, or can be high-temperature resistant silicide, such as silicone. The flexible connecting layer 660 can also be other materials. The material of the flexible connecting layer 660 is limited as long as the flexible connecting layer 660 has high temperature resistance and soft properties.

**[0039]** In some embodiments, several plate bodies 620 and flexible connecting layers 660 arranged side by side form a roller shutter-like structure. In the closed state, the flexible connecting layer 660 makes a predetermined angle between adjacent plate bodies 620, and the shape of the cover plate 600 matches the shape of the notch of the mounting slot 123. The flexible connecting layer is not limited to the above examples, and can also be other fiber textiles or silicides.

**[0040]** As shown in FIG. 1 and FIG. 2, the number of plate bodies 620 is five. The number of plate bodies 620 of the cover plate 600 is not limited by the embodiment here, and the different plate bodies 620 can also have inconsistent widths and sizes as long as the shape of the cover plate 600 matches the shape of the notch 1231 of the mounting slot 123.

**[0041]** According to an embodiment of the present application, the plate bodies 620 are silicone plate bodies 620, and the flexible connecting layer 660 is a silicone connecting layer. It can be understood that silicone is resistant to high temperature, non-toxic and odorless, has good heat insulation effect and can be directly used as an ironing plane. Silicone is extremely flexible and can be deformed to facilitate matching of the notch 1231 of the mounting slot 123. In addition, silicone is easy to clean with clean water after use. Both the plate bodies 620 and the flexible connecting layer 660 are made of silicone to facilitate the integral molding of the cover plate 600 and to facilitate manufacturing.

**[0042]** The cover plate 600 can also be a whole flexible silicone cover plate 600, and the effects of the silicone cover plate 600 will not be described again.

**[0043]** According to an embodiment of the present application, as shown in FIG. 2 and FIG. 3, the cover plate 600 is provided with a first mounting portion 630, and the notch 1231 of the mounting slot 123 is provided with a second mounting portion 1232. In the closed state, the first mounting portion 630 is at least partially engaged with the second mounting portion 1232.

**[0044]** It can be understood that the first mounting portion 630 may have a complex structure, such as a stepped structure, a buckle structure, etc. The present application does not limit the structure of the first mounting portion 630, as long as the first mounting portion 630 is at least partially engaged with the second mounting portion 1232.

**[0045]** According to an embodiment of the present application, as shown in FIG. 2 and FIG. 4, a first end of the cover plate 600 is provided with a first buckle portion 640, and the main body 100 is provided with a first mounting port 150. In the closed state, the first buckle portion 640 partially enters the first mounting port 150, and a buckle slot 160 is formed between the main body 100 and an end surface of the first buckle portion 640.

**[0046]** It can be understood that the first buckle portion 640 partially enters the first mounting port 150, and the buckle slot 160 is formed between an end surface of the first buckle portion 640 and an end surface of the first mounting port 150. The user can disengage the first buckle portion 640 from the first mounting port 150 through the buckle slot 160.

**[0047]** In an embodiment, as shown in FIG. 1 and FIG. 2, a front side of the main body 100 is recessed to form a mounting cavity 130. The first mounting port 150 is located above the mounting cavity 130. The user can extend his fingers from the mounting cavity 130 into the buckle slot 160 to disengage the first buckle portion 640 from the first mounting port 150. It can be understood that the front side here refers to the side facing the user, and the first mounting port 150 being located on the front side of the main body 100 is convenient for the user to operate.

**[0048]** According to an embodiment of the present application, a second end of the cover plate 600 is provided with a second buckle portion (not shown in the figure, the structure of the second buckle portion may refer to the structure of the first buckle portion 640, and similarly, a second mounting port mentioned below is also not shown in the figure). The main body 100 is provided with a second mounting port, in the closed state, the second buckle portion partially enters the second mounting port, and a buckle slot is formed between the main body 100 and an end surface of the second buckle portion.

**[0049]** It can be understood that the second buckle por-

tion partially enters the second mounting port, the end surface of the second buckle portion and the end surface of the second mounting port form a buckle slot without contact, and the user can disengage the second buckle portion from the second mounting port through the buckle slot.

**[0050]** According to an embodiment of the present application, a first magnetic attraction portion 631 is provided on an edge of the cover 660, and a second magnetic attraction portion 170 is provided on an edge of the mounting slot 123. In the closed state, the first magnetic attraction portion 631 is attracted to the second magnetic attraction portion 170. It can be understood that the cover plate 600 can be connected to the mounting slot 123 of the main body 100 by attracting the first magnetic attraction portion 631 to the second magnetic attraction portion 170. The cover plate 600 can be attracted by just being close without the need for other auxiliary tools, which is easy to operate and very flexible.

**[0051]** In an embodiment, as shown in FIG. 4 and FIG. 5, FIG. 4 is a cross-sectional view of the ironing machine and FIG. 5 is a partial enlarged view of the second end of the ironing machine cover plate 600, a first end of the cover plate 600 is provided with a first buckle portion 640, the first buckle portion 640 can be buckled to the first mounting port 150 of the main body 100, a second end of the cover plate 600 is provided with a first magnetic attraction portion 631 and the first magnetic attraction portion 631 may be attracted to the second magnetic attraction portion 170 of the main body 100. When it is necessary to close the cover, the user can first correspond the second end of the cover plate 600 to a position where the second magnetic attraction portion 170 of the main body 100 is located. After the attraction is completed, the user can then insert a part of the first buckle portion 640 into the first mounting port 150, store and protect an ironing head.

**[0052]** According to an embodiment of the present application, the mounting slot 123 is shaped to match the shape of the iron 200. In the closed state, the outer surface of the cover plate 600 is flush with the outer surface of the main body 100. The connection between the cover plate 600 and the main body 100 has strong stability and is not easily affected by the outside causing the cover plate 600 to separate from the main body 100. It can be understood that the mounting slot 123 matches the shape of the iron 200, which improves the overall space utilization of the main body 100 and effectively reduces the volume occupied by the ironing machine. The small-sized ironing machine is more conducive to storage and usage, and better user experience is provided.

**[0053]** According to an embodiment of the present application, as shown in FIG. 2, a handle 800 is provided on the top of the main body 100. The main body 100 includes a first wall surface 180 and a second wall surface 190 oppositely arranged. Both the first wall surface 180 and the second wall surface 190 are recessed to form the mounting slot 123 of the main body 100. A first pull rod 700 is provided on the top of the first wall surface 180, and a second pull rod 710 is provided on the top of the second wall surface 190, both the first pull rod 700 and the second pull rod 710 are movably connected to the main body 100, and the handle 800 is connected to the first pull rod 700 and the second pull rod 710.

**[0054]** It can be understood that the pull rods (including the first pull rod 700 and the second pull rod 710) can adjust the handle 800 to a comfortable height, making it easier for the user to use when it is necessary to move the ironing machine, and convenient to transport and carry. In addition, when the iron 200 or the cover plate 600 is taken out from the ironing machine, raising the handle 800 can facilitate the removal of the iron 200 and the cover plate 600 to prevent interference. When the iron 200 needs to be accommodated in the ironing machine, the pull rods can be retracted to save the space for placing the ironing machine.

**[0055]** According to an embodiment of the present application, as shown in Figure 2, the handle 800 is fixedly connected to the pull rods (including the first pull rod 700 and the second pull rod 710). The cover plate 600 is provided with an avoidance port 650. In the closed state, the handle 800 is connected to the avoidance port 650. As shown in FIG. 1, when the cover plate 600 is in the closed state, the pull rod can be retracted to the retracted position, and the handle 800 is at least partially embedded in the avoidance port 650 of the cover plate 600. Through the limiting function of the handle 800 and the avoidance port 650, the cover plate 600 is not displaced, and the connection of the cover plate 600 to the main body 100 is more stable to better prevent from disengaging. As shown in FIG. 2, when the cover plate 600 is in the closed state, the pull rods can be pulled up to the raised position to release the locking of the cover plate 600 by the pull rod, and the cover plate 600 can be switched from the closed state to the open state.

**[0056]** According to an embodiment of the present application, the main body 100 includes a first wall surface 180 and a second wall surface 190 oppositely arranged. Both the first wall surface 180 and the second wall surface 190 are recessed to form the mounting slot 123. The handle 800 includes a first handle (not shown in the figure) and a second handle (not shown in the figure), the first handle is rotatably connected to the top of the first wall surface 180, the second handle is rotatably connected to the top of the second wall surface 190, both the first handle and the second handle are switchable between a lifting position and an avoidance position of the cover plate 600.

**[0057]** It can be understood that the first handle is rotatably connected to the top of the first wall surface180, and the second handle is rotatably connected to the top of the second wall surface 190. When the ironing machine needs to be transported, the first handle and the second handle are rotated to the lifting position, and the first handle and the second handle can be moved closer to each other, making it convenient for the user to lift the ironing

machine. When the ironing machine needs to be used, the first handle and the second handle are rotated to the avoidance position, and the first handle and the second handle do not interfere with taking out the iron 200 and the cover plate 600 from the middle.

**[0058]** In some embodiments, when the first handle and the second handle are moved closer to each other, the first handle and the second handle are connected. The connection manner between the first handle and the second handle may be a snap connection, a magnetic connection, or other connection manners. The present application does not limit the connection manner between the first handle and the second handle.

**[0059]** According to the ironing machine of the embodiment of the present application, the ironing machine includes a steam guide pipe 300 and an interactive panel 400. A first end of the steam guide pipe 300 is connected to the steam generator, and a second end of the steam guide pipe 300 is connected to the iron 200. The interactive panel 400 is mounted on the main body 100, and a winding column 500 is connected between the interactive panel 400 and main body 100 and is configured to retract the steam guide pipe 300.

**[0060]** It can be understood that the interactive panel includes control functions. For example, the interactive panel may include the function of a switch. The user can control the turning on of the ironing machine through the interactive panel. The interactive panel may also include the function of controlling the amount of steam of the iron. The user can control the amount of steam to suit different needs through the interactive panel. The functions of the interactive panel are not limited by the examples here.

**[0061]** In an embodiment, the interactive panel includes a status display function. For example, the interactive panel is a display screen that can present information and working status of the steam generator to the user on the interactive panel.

**[0062]** According to the ironing machine of the embodiment of the present application, by connecting the winding column 500 between the interactive panel 400 and the main body 100, the scattered steam guide pipe 300 can be wound around the winding column 500, the scattered steam guide pipe 300 can be stored neatly, and can effectively prevent the steam guide pipe 300 from being knotted, and it is convenient for the user to store the ironing machine.

**[0063]** According to an embodiment of the ironing machine of the present application, as shown in FIG. 2 and FIG. 4, the main body 100 is formed with a mounting seat 120 for the iron 200. The mounting seat 120 is provided with a supporting surface 121 and a limiting surface 122. The supporting surface 121 is connected to the limiting surface 122, and a mounting slot 123 for the handheld steam generator is formed between the supporting surface 121 and the limiting surface 122. The limiting surface 122 is located at the bottom of the supporting surface 121, and the supporting surface 121 is inclined toward the user. By inclining the supporting surface 121 toward the user, the iron 200 is inclinedly placed in the mounting slot 123, making it more convenient for the user to place and pick it up. Moreover, the interactive panel 400 is generally installed vertically or horizontally on the main body 100. The iron 200 is placed inclinedly, which can make the structural layout of the ironing machine more compact.

**[0064]** It can be understood that the supporting surface 121 of the mounting seat 120 is in contact with the working plane of the iron 200, and the supporting surface 121 can be made of heat-insulating materials such as fiberglass, asbestos, rock wool, etc. The supporting surface 121 is inclined toward the user, and the limiting surface 122 limits the iron 200 from sliding down.

**[0065]** According to an embodiment of the ironing machine of the present application, the steam guide pipe 300 is connected to a side of the iron 200 facing the interactive panel 400. It can be understood that the steam guide pipe 300 is close to the interactive panel 400, and the length of the steam guide pipe 300 without winding the winding column 500 is shorter, which can save space in the ironing machine.

**[0066]** According to an embodiment of the present application, as shown in FIG. 4, the edge of the interactive panel 400 protrudes relative to the winding column 500 to form a blocking portion 410. An annular slot 510 is formed between the blocking portion 410, the winding column 500 and the main body 100, the steam guide pipe 300 is wound around the annular slot 510 and the steam guide pipe 300 cannot be easily detached therefrom.

**[0067]** It can be understood that the blocking portion 410 may be a protrusion as shown in FIG. 2, and an annular slot 510 is formed by the protrusion, the winding column 500 and the main body 100, and the steam guide pipe 300 is wound around the annular slot 510 and the steam guide pipe 300 is limited by the annular slot 510. It should be noted that a raised blocking portion 410 may be formed on an edge of the interactive panel 400, or a raised blocking portion 410 may be formed on the edges on opposite sides of the interactive panel 400. A circle of annular flange may also be formed on the edge of the interactive panel 400. The present application does not limit the position and shape of the protrusion, as long as the steam guide pipe 300 is not easily disengaged from the annular slot 510.

**[0068]** According to an embodiment of a cover plate for an ironing machine of the present application, the cover plate has a closed state and an open state; in the closed state, the cover plate is configured to cover a mounting slot of the ironing machine for accommodating an iron; in the open state, the cover plate leaves the ironing machine to form an ironing plane.

**[0069]** According to an embodiment of the ironing machine of the present application, the cover plate 600 is connected to the main body 100 to open and close the mounting slot 123; a pipe-passing slot 610 for the steam guide pipe 300 is formed between the cover plate 600 and the main body 100.

**[0070]** It can be understood that the pipe-passing slot 610 can be formed in the main body 100 alone or in the cover plate 600. The pipe-passing slot 610 can also be formed in the main body 100 and the cover plate 600 together. In FIG. 4, the pipe-passing slot 610 are formed on the cover plate 600. The pipe-passing slot 610 can prevent the steam guide pipe 300 from moving, and the steam guide pipe 300 will not be loose and separated from the winding column 500. The cross section of the pipe-passing slot 610 can exactly match the cross section of the steam guide pipe 300, and the steam guide pipe 300 can be stuck in the wire duct 610. When the cover plate 600 covers the mounting slot 123, the pipe-passing slot 610 can completely fix the steam guide pipe 300. There may also be a certain gap between the inner surface of the pipe-passing slot 610 and the steam guide pipe 300.

**[0071]** According to an embodiment of the ironing machine of the present application, the ironing machine includes conductive cables. A groove 140 is provided on the periphery of the bottom of the main body 100, and the conductive cables are wound around the groove 140. The conductive cables here include, but not limited to, cables between each electrical component and the power supply, as well as cables between each electrical component and the interactive panel. The groove 140 is provided at the bottom of the main body 100 and is almost invisible to the user during usage. It will neither interfere with the operation of the iron 200 nor affect the appearance of the ironing machine. It can be understood that the groove 140 may also be provided at other locations on the main body 100. The groove 140 and the winding column 500 are respectively disposed at different positions of the ironing machine to avoid winding between the conductive cables and the steam guide pipe 300.

**[0072]** It should be noted that the above embodiments are only used to illustrate the present application, but not to limit the present application. Although the present application has been described in detail with reference to the embodiments, those skilled in the art should understand that various combinations, modifications, or equivalent replacements of the solutions of the present application do not depart from the scope of the solutions of the present application, and should all cover the scope of the claims of the present application.

## Claims

**1.** An ironing machine, comprising:

a main body (100) provided with a steam generator and formed with a mounting slot (123);
an iron (200) accommodatable in the mounting slot (123); and
a cover plate (600) switchable between a closed state and an open state, wherein:
in the closed state, the cover plate (600) is connected to the main body (100) to cover the mounting slot (123); and
in the open state, the cover plate (600) leaves the main body (100) to form an ironing plane.

**2.** The ironing machine of claim 1, wherein the cover plate (600) is made of an elastically deformable material, and is deformed to match a notch (1231) of the mounting slot (123) in the closed state; and/or,
the cover plate (600) comprises at least two plate bodies (620), and in the closed state, a predetermined angle is formed between adjacent plate bodies (620) to match the cover plate (600) with a notch (1231) of the mounting slot (123).

**3.** The ironing machine of claim 2, wherein:

the cover plate (600) is provided with a first mounting portion (630);
the notch (1231) of the mounting slot (123) is provided with a second mounting portion (1232); and
in the closed state, the first mounting portion (630) is at least partially engaged with the second mounting portion (1232).

**4.** The ironing machine of claim 2 or 3, wherein the cover plate (600) is a silicone cover plate.

**5.** The ironing machine of any one of claims 2 to 4, wherein when the cover plate (600) comprises at least two plate bodies (620),

a connecting portion is provided between adjacent plate bodies (620), or
the cover plate (600) further comprises a flexible connecting layer (660), and all the plate bodies (620) are arranged side by side along the flexible connecting layer (660).

**6.** The ironing machine of any one of claims 1 to 5, wherein:

a first magnetic attraction portion (631) is provided on an edge of the cover plate (600);
a second magnetic attraction portion (170) is provided correspondingly on the edge of the mounting slot (123); and
in the closed state, the first magnetic attraction portion (631) is attracted to the second magnetic attraction portion (170).

**7.** The ironing machine of any one of claims 1 to 6, wherein:

the mounting slot (123) is shaped to a shape of

the iron (200); and
in the closed state, an outer surface of the cover plate (600) is flush with an outer surface of the main body (100).

**8.** The ironing machine of any one of claims 1 to 7, wherein:

a first end of the cover plate (600) is provided with a first buckle portion (640);
the main body (100) is provided with a first mounting port (150); and
in the closed state, the first buckle portion (640) partially enters the first mounting port (150), and a buckle slot (160) is formed between the main body (600) and an end surface of the first buckle portion (640).

**9.** The ironing machine of claim 8, wherein:

a second end of the cover plate (600) is provided with a second buckle portion;
the main body (100) is provided with a second mounting port; and
in the closed state, the second buckle portion partially enters the second mounting port, and a buckle slot is formed between the main body (100) and an end surface of the second buckle portion.

**10.** The ironing machine of claim 8 or 9, wherein in the closed state, a pipe-passing slot (610) is formed between the first buckle portion (640) and the first mounting port (150), and is configured to pass a steam guide pipe (300) of the iron through.

**11.** The ironing machine of any one of claims 1 to 10, wherein:

a handle (800) is provided on the top of the main body (100);
the main body (100) includes a first wall surface (180) and a second wall surface (190) oppositely arranged;
both the first wall surface (180) and the second wall surface (190) are recessed to form the mounting slot (123);
a first pull rod (700) is provided on the top of the first wall surface (180);
a second pull rod (710) is provided on the top of the second wall surface (190);
both the first pull rod (700) and the second pull rod (710) are movably connected to the main body (100); and
the handle (800) is connected to the first pull rod (700) and the second pull rod (710).

**12.** The ironing machine of claim 11, wherein:

the cover plate (600) is provided with an avoidance port (650); and
in the closed state, the handle (800) is at least partially located in the avoidance port (650).

**13.** The ironing machine of any one of claims 1 to 10, wherein:

the main body comprises a first wall surface (180) and a second wall surface (190) arranged oppositely;
both the first wall surface (180) and the second wall surface (190) are recessed to form the mounting slot (123);
the top of the first wall surface (180) is rotatably connected with a first handle;
the top of the second wall surface (190) is rotatably connected with a second handle; and
both the first handle and the second handle are switchable between a lifting position and an avoidance position of the cover plate (600).

**14.** The ironing machine of any one of claims 1 to 13, comprising:

a steam guide pipe (300), wherein a first end of the steam guide pipe (300) is connected to the steam generator, and a second end of the steam guide pipe (300) is connected to the iron (200); and
an interactive panel (400) connected to the main body (100) through a winding column (500), wherein the winding column (500) is configured to retract the steam guide pipe (300), an edge of the interactive panel (400) protrudes relative to the winding column (500) to form a blocking portion (410), an annular slot (510) is formed between the blocking portion (410), the winding column (500) and the main body (100), and the steam guide pipe (300) is wound around the annular slot (510).

**15.** A cover plate (600) for an ironing machine, wherein:

the cover plate (600) has a closed state and an open state;
in the closed state, the cover plate (600) is configured to cover a mounting slot (123) of the ironing machine for accommodating an iron (200); and
in the open state, the cover plate (600) leaves the ironing machine to form an ironing plane.

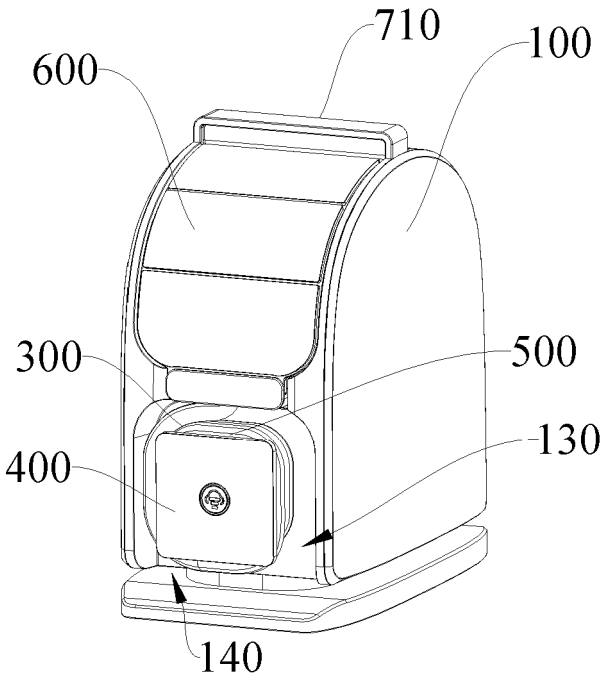
710
100
600
300
500
130
400
140

FIG. 1

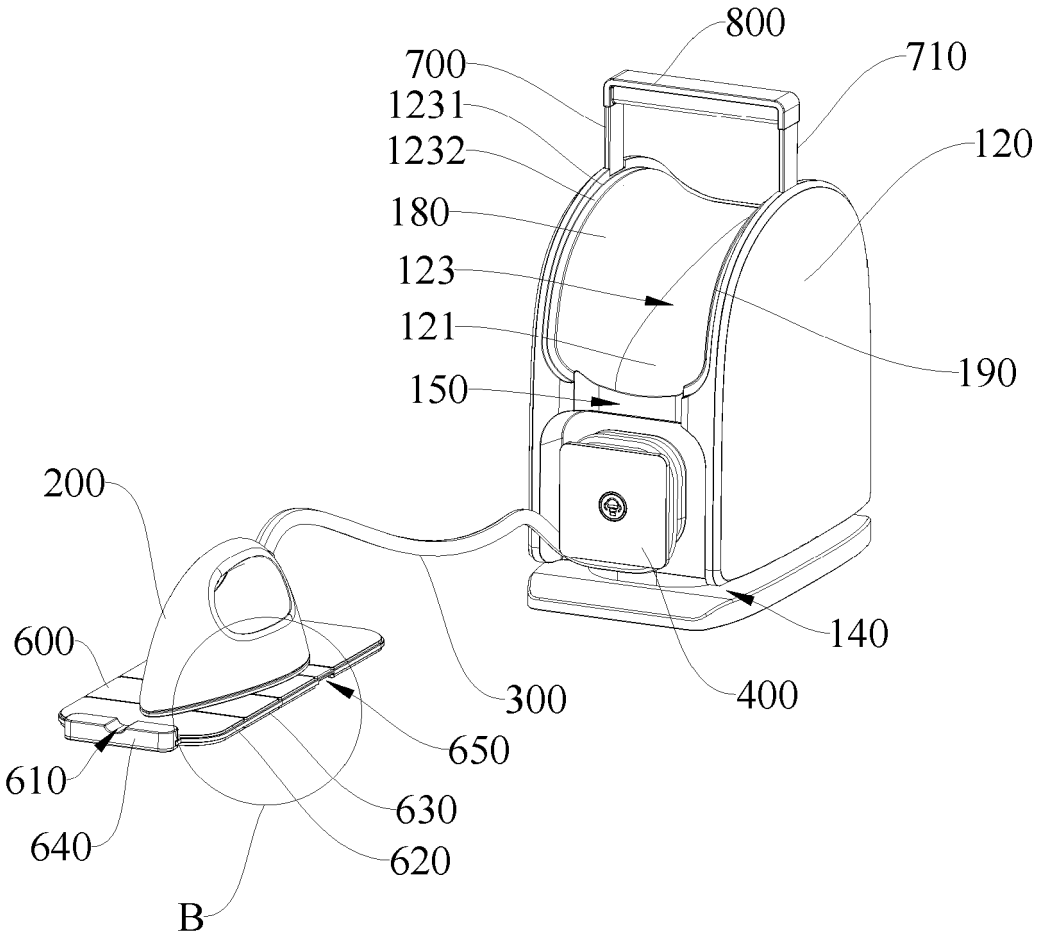
800
710
700
1231
1232
120
180
123
121
190
150
200
600
140
300
400
650
610
630
640
620
B

FIG. 2

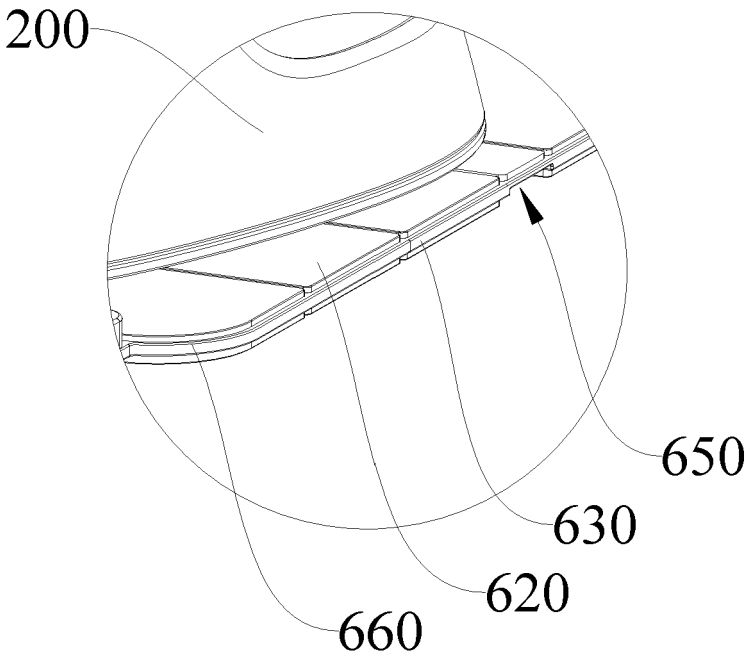
200
650
630
620
660

FIG. 3

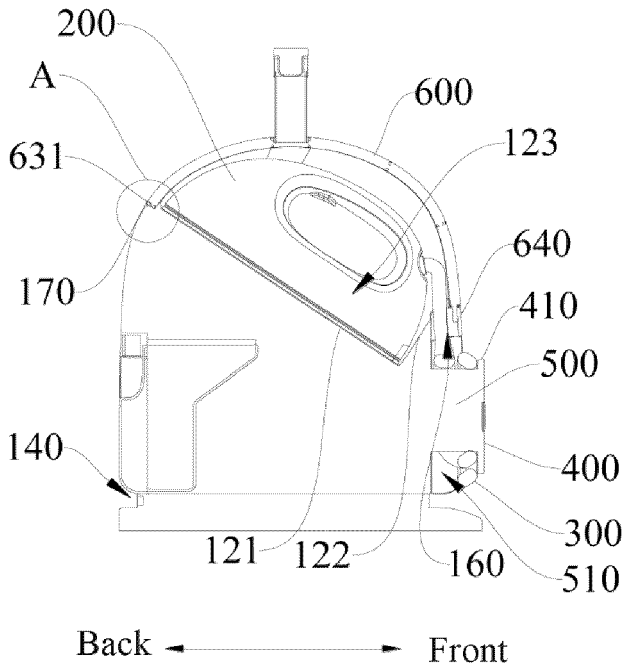
200
A
600
631
123
640
170
410
500
140
400
300
121
122
160
510
Back
Front

FIG. 4

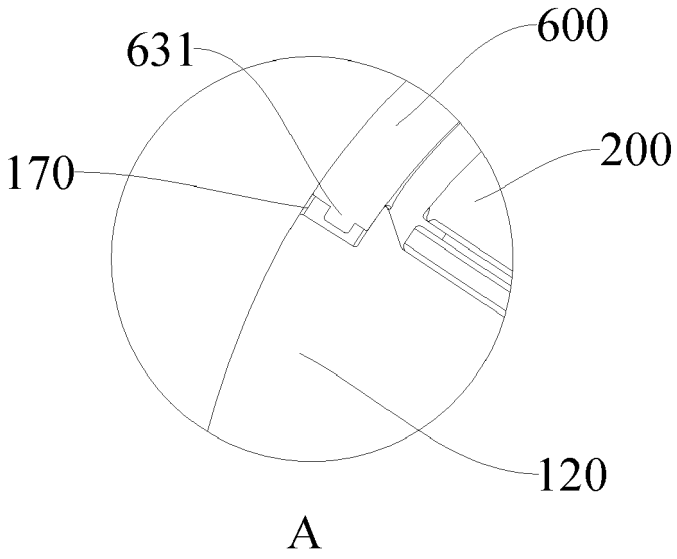


FIG. 5

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# EUROPEAN SEARCH REPORT

Application Number
EP 24 16 2628

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| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
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The present search report has been drawn up for all claims

| Place of search | Date of completion of the search | Examiner |
|---|---|---|
| Munich | 28 May 2024 | Diaz y Diaz-Caneja |

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28-05-2024

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