Scope of the Claim

[Claim 1]

A vacuum electric cooker characterized by comprising: a cooker body including a horizontal base and a stand section extending vertically upward from the rear edge of that horizontal base and having a motor mounted therein; a cooker container including a cooking tool adapted to be driven by said motor, and removably mounted on the horizontal base of said cooker body; a cover member having an discharge nozzle for covering said cooker container; a connecting arm having a base end so attached to the vicinity of the upper end of said stand section as to rock in a vertical plane between a substantially horizontal active position and a substantially vertical inactive position; a connecting nozzle attached to the leading end of said connecting arm and connected air-tightly to said discharge nozzle when said connecting arm is at the active position; holding means for holding the state, in which said connecting nozzle is hermetically connected to said discharge nozzle; a vacuum pump disposed in said cooker body; and an air tube connected at one end to said vacuum pump, extending therefrom within the stand section and the connecting arm and connected at the other end to said connecting nozzle.

[Claim 2]

A vacuum electric cooker as set forth in claim 1, wherein said connecting arm is biased in the direction to said inactive position by biasing means having a spring.

[Claim 3]

A vacuum electric cooker as set forth in claim 1 or 2, wherein said holding means is arranged in said connecting arm.

[Claim 4]

A vacuum electric cooker as set forth in any of claims 1 to 3, wherein releasing means adapted to be operated by an operator for releasing the active state of said holding means is mounted on said connecting arm.

[Claim 5]

A vacuum electric cooker as set forth in any of claims

1 to 4, wherein the gas-tightness of the connection between said connecting nozzle and said discharge nozzle is achieved by a sealer mounted on the lower end of said connecting nozzle and/or the upper end of said discharge nozzle.

[Claim 6]

A vacuum electric cooker as set forth in any of claims 1 to 5, further comprising a trap member having a cup shape and removably attached to the lower side of that portion of said cover member, which is equipped with said discharge nozzle, so that the air flow from the cooker container flows through that trap member to the side of the discharge nozzle, wherein said trap member is equipped with air-flow control means for preventing the air flow from proceeding directly toward the discharge nozzle, so that a cooking material accompanied by the air flow may be received on the bottom of said trap member.

[Claim 7]

A vacuum electric cooker as set forth in claim 6, wherein the air-flow control means includes: a communication port formed in the bottom of said trap member for causing the air flow from the cooker container to hit the lower face of the cover member around said discharge nozzle; and an air-flow buffering tube extending vertically downward from the lower face of said cover member around the arranged portion of said discharge nozzle, for preventing the air flow having hit the lower face of said cover member from going directly to the discharge nozzle.

[Claim 8]

A vacuum electric cooker as set forth in any of claims 1 to 7, wherein said cover member includes a sealer for blocking the entry of air into the cooker container, when said cover member is mounted on the cooker container, from between said cover member and the upper wall of the cooker container.

[Claim 9]

A vacuum electric cooker as set forth in any of claims 1 to 8, further comprising: control means for controlling said

motor and said vacuum pump; and pressure detecting means connected with said control means for metering the degree of vacuum in said cooker container, wherein said control means activates said vacuum pump firstly at the start of the vacuum electric cooker, to evacuate the inside of the cooker container, wherein said pressure detecting means sends a predetermined vacuum degree achievement signal to said control means, when the vacuum degree in the cooker container reaches a predetermined vacuum degree, so that said control means having received said signal stops said vacuum pump and starts said motor, wherein said pressure detecting means sends a vacuum drop signal to said control means, when the vacuum degree in the cooker container drops, during the action of said motor, to a second predetermined vacuum degree lower than said first predetermined vacuum degree, and wherein said control means having received said vacuum degree drop signal activates said vacuum pump thereby to raise the vacuum degree of said cooker container to said first predetermined vacuum degree.

[Claim 10]

A vacuum electric cooker as set forth in any of claims 1 to 9, further comprising a vacuum-preservation container including a vacuum-preservation container body; and a preservation container cover having a discharge nozzle of a structure similar to that of the discharge nozzle of said cover member, wherein a check valve for passing the air flow only from the vacuum-preservation container body toward the discharge nozzle is connected to the discharge nozzle, and wherein said vacuum-preservation container is made so high that the discharge nozzle thereof can be hermetically connected to the connecting nozzle of said connecting arm when placed on the horizontal base of said cooker body while the cooker container cover is placed on said vacuum-preservation container.

[Claim 11]

A vacuum electric cooker as set forth in claim 10, wherein said preservation container cover includes

air-tightness releasing means for releasing the gas-tightness in the vacuum-preservation container by the operation of the operator.

[Claim 12]

A vacuum electric cooker as set forth in any of claims 1 to 11, further comprising an accessory vacuum tube provided at its one end with an discharge nozzle having a structure similar to that of the discharge nozzle of said cover member.

[Claim 13]

A vacuum electric cooker as set forth in claim 12, wherein said accessory vacuum tube is provided at its other end with a connecting nozzle having a structure similar to that of the connecting nozzle of said connecting arm.

Scope of the Claim

[Claim 1]

A vacuum electric cooker characterized by comprising: a cooker body including a horizontal base and a stand section extending vertically upward from the rear edge of that horizontal base and having a motor mounted therein; a cooker container including a cooking tool adapted to be driven by said motor, and removably mounted on the horizontal base of said cooker body; a cover member having an discharge nozzle for covering said cooker container; a connecting arm having a base end so attached to the vicinity of the upper end of said stand section as to rock in a vertical plane between a substantially horizontal active position and a substantially vertical inactive position; a connecting nozzle attached to the leading end of said connecting arm and connected air-tightly to said discharge nozzle when said connecting arm is at the active position; holding means for holding the state, in which said connecting nozzle is hermetically connected to said discharge nozzle; a vacuum pump disposed in said cooker body; an air tube connected at one end to said vacuum pump, extending therefrom within the stand section and the connecting arm and connected at the other end to said connecting nozzle, and a trap member having a cup shape and removably attached to the lower side of that portion of said cover member, which is equipped with said discharge nozzle, so that the air flow from the cooker container flows through that trap member to the side of the discharge nozzle, wherein said trap member is equipped with air-flow control means for preventing the air flow from proceeding directly toward the discharge nozzle, so that a cooking material accompanied by the air flow may be received on the bottom of said trap member.

[Claim 2]

A vacuum electric cooker as set forth in claim 1, wherein said connecting arm is biased in the direction to said inactive position by biasing means having a spring.

[Claim 3]

A vacuum electric cooker as set forth in claim 1 or 2, wherein said holding means is arranged in said connecting arm.

[Claim 4]

A vacuum electric cooker as set forth in any of claims 1 to 3, wherein releasing means adapted to be operated by an operator for releasing the active state of said holding means is mounted on said connecting arm.

[Claim 5]

A vacuum electric cooker as set forth in any of claims 1 to 4, wherein the gas-tightness of the connection between said connecting nozzle and said discharge nozzle is achieved by a sealer mounted on the lower end of said connecting nozzle and/or the upper end of said discharge nozzle.

[Claim 6]

A vacuum electric cooker as set forth in claim 5, wherein the air-flow control means includes: a communication port formed in the bottom of said trap member for causing the air from from the cooker container
to hit the lower face of the cover member around said discharge nozzle; and an air-flow buffering tube extending vertically downward from the lower face of said cover member around the arranged portion of said discharge nozzle, for preventing the air flow having hit the lower face of said cover member from going directly to the discharge nozzle.

[Claim 7]

A vacuum electric cooker as set forth in any of claims 1 to 6, wherein said cover member includes a sealer for blocking the entry of air into the cooker container, when said cover member is mounted on the cooker container, from between said cover member and the upper wall of the cooker container.

[Claim 8]

A vacuum electric cooker as set forth in any of claims 1 to 7, further comprising: control means for controlling said motor and said vacuum pump; and pressure determining means connected with said control means for metering the degree of vacuum in said cooker container, wherein said control means activates said vacuum pump firstly at the start of the vacuum electric cooker, to evacuate the inside of the cooker container, wherein said pressure detecting means sends a predetermined vacuum degree achievement signal to said control means, when the vacuum degree in the cooker container reaches a predetermined vacuum degree, so that said control means having received said signal stops said vacuum pump and starts said motor, wherein said pressure detecting means sends a vacuum drop signal to said control means, when the vacuum degree in the cooker container drops, during the action of said motor, to a second predetermined vacuum degree lower than said first predetermined vacuum degree, and wherein said control means having received said vacuum degree drop signal activates said vacuum pump thereby to raise the vacuum degree of said cooker container to said first predetermined vacuum degree.

[Claim 9]

A vacuum electric cooker as set forth in any of claims 1 to 8, further comprising a vacuum-reservation container including a vacuum-reservation container body; and a reservation container cover having a discharge nozzle of a structure similar to that of the discharge nozzle of said cover member, wherein a check valve for passing the air flow only from the vacuum-reservation container body toward the discharge nozzle is connected to the discharge nozzle, and wherein said vacuum-reservation container is made so high that the discharge nozzle thereof can be hermetically connected to the connecting nozzle of said connecting arm when placed on the horizontal base of said cooker body while the cooker container cover is

placed on said vacuum-reservation container.

[Claim 10]

A vacuum electric cooker as set forth in claim 9, wherein said reservation container cover includes air-tightness releasing means for releasing the gas-tightness in the vacuum-reservation container by the operation of the operator.

[Claim 11]

A vacuum electric cooker as set forth in any of claims 1 to 10, further comprising an accessory vacuum tube provided at its one end with an discharge nozzle having a structure similar to that of the discharge nozzle of said cover member.

[Claim 12]

A vacuum electric cooker as set forth in claim 11, wherein said accessory vacuum tube is provided at its other end with a connecting nozzle having a structure similar to that of the connecting nozzle of said connecting arm.