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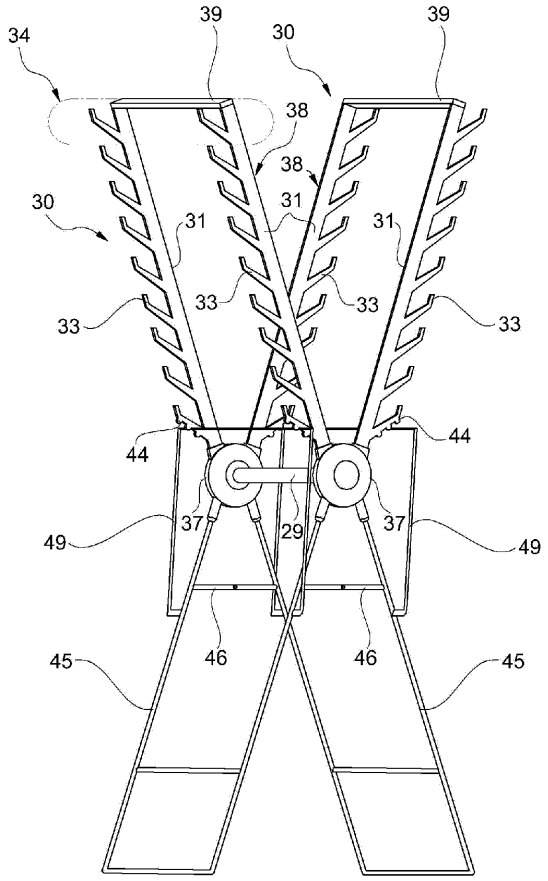
(54) PROTRUDING-AND-BENT LAUNDRY HANGER DRYING DEVICE AND LAUNDRY DRYING RACK INCLUDING SAME

(57) The present invention provides a laundry drying rack, which comprises: a protruding-and-bent laundry hanger drying device including a mounting frame and at least two laundry hanger transverse units, the at least two laundry hanger transverse units protruding downward from the mounting frame and being spaced apart from each other in the transverse direction and in the longitudinal direction; and a supporting means for supporting the protruding-and-bent laundry hanger drying device. Therefore, the present invention provides an advantageous effect of preventing, when a user hangs many pieces of laundry on the laundry drying rack in order to simultaneously dry them, the user's hand or the laundry from being caught in a drying pole support frame, thereby enabling the user to make the laundry be instantly widened on a laundry hanger by hanging the laundry on the laundry hanger in a state where the user widens and holds both sides of the upper part of the laundry.

【 Fig 5 】



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Description

[Technical Field]

[0001] The present invention relates to a protruding-and-bent laundry hanger drying device and a laundry drying rack including the same, and more particularly, to a protruding-and-bent laundry hanger drying device and a laundry drying rack including the same having a plurality of protruding-and-bent laundry hangers in a transverse direction and a longitudinal direction to conveniently hang and gather several pieces of laundry, for solving a problem in which a motion of hanging or gathering each piece of laundry when hanging laundry to dry the laundry or gathering the laundry after the laundry is dried is extremely inconvenient in all of a method of using a ceiling laundry drying rack or a laundry drying rack stood on a floor for drying laundry by just putting the laundry on drying poles and stretching both sides of the laundry and a method of drying laundry by pressing and gripping a part of the laundry using an elastic body such as a clothespin and just stretching remaining parts of the laundry.

[Background Art]

[0002] Generally, various types of laundry drying racks are used to simultaneously dry several pieces of laundry, and all conventional laundry drying racks use methods of drying laundry by just putting the laundry on drying poles and stretching both sides of the laundry or pressing and gripping a part of the laundry using an elastic body such as a clothespin and just stretching remaining parts of the laundry.

[0003] FIGS. 1, 2, 3, and 4 illustrate conventional laundry drying racks. FIG. 1 illustrates a ceiling laundry drying rack in which drying poles 51 are manually adjusted to be lifted or lowered by pulling a handle 53 from a ceiling laundry drying rack in which drying rack frames 55 are fixed to a ceiling to manually or electrically lift or lower the drying poles 51 to and from the ceiling. The drying poles 51 are lifted and lowered as X-link combination devices 52, referred to as a bellows, formed of X-links coupled to the drying rack frames 55 connected to the ceiling are folded and unfolded.

[0004] FIG. 2 illustrates a laundry drying rack being stood on a floor to dry laundry by hanging the laundry on drying poles and stretching both sides of the laundry. The ceiling laundry drying rack of FIG. 1 and the laundry drying rack of FIG. 2 stood on a floor both use a method of just putting laundry on a plurality of drying poles 51 arranged in predetermined intervals and stretching the laundry toward both sides of the drying poles 51 to simultaneously dry several pieces of laundry.

[0005] However, there is the following problem in the method.

[0006] As illustrated, a drying pole support frame 50 that supports the drying poles 51 is formed in almost the same plane as the drying poles 51 such that the drying pole support frame 50 gets in the way when hanging laundry on the drying poles 51, making it impossible for a user to instantly hang laundry on the drying poles 51 in a state where the user widens and hold both sides of the upper part of the laundry and pulling the laundry over the drying poles 51, and causing the user to first hang the laundry on the drying poles 51, release a grip, then hold parts that have passed over the drying poles 51 to pull the parts, thus having a problem of being very inconvenient.

[0007] In addition, since each piece of laundry has to be pushed upward between the drying poles 51 to be hung on the drying poles 51 and then pulled downward to stretch the laundry toward both sides of the drying poles 51 to similar extents, there is a problem of being inconvenient and taking a great amount of time when hanging the laundry.

[0008] In addition, since each piece of the laundry has to be held and pulled above the drying poles 51 or one side of each piece of the laundry has to be pulled to reach ends of the drying poles 51 when gathering up the dried laundry, there are problem of being inconvenient due to being unable to simultaneously gather all the laundry, having to gather each piece of the laundry one by one, and taking a great amount of time.

[0009] An enlarged part in FIG. 2 illustrates that the drying pole support frame 50 and the drying poles 51 are formed on almost the same plane in detail. Referring to the enlarged part in FIG. 2, Due to the drying pole support frame 50 that is perpendicularly coupled to the drying poles 51 at end parts of the drying poles 51, there are problems of making it impossible for the user to instantly hang laundry on the drying poles 51 in a state where the user widens and hold both sides of the upper part of the laundry and pulling the laundry over the drying poles 51, and causing the user to first hang the laundry on the drying poles 51, release a grip, then hold parts that have passed over the drying poles 51 to pull the parts. Thus, although the drying pole support frame 50 has an important function of supporting the drying poles 51, the drying pole support frame 50 becomes an obstacle that causes an inconvenience when hanging laundry.

[0010] FIGS. 3 and 4 illustrate a method of drying laundry by pressing and gripping a part of the laundry using an elastic body such as a clothespin and just stretching remaining parts of the laundry. The laundry drying method illustrated in FIGS. 3 and 4 have the following problems.

[0011] Since a plurality of clothespins 54 are coupled to a clothespin frame 56 and laundry needs to be hung by grabbing one part of each piece of laundry to be dried with the clothespins 54 and grabbing another part of each piece of laundry with the clothespins 54, there are problems of being inconvenient due to using great effort when hanging the laundry and taking a great amount of time. Also, since the clothespin 54 holding one side of an upper part of each piece of laundry has to be opened to release the laundry and the clothespin 54 holding another side

of the upper part of the same piece of laundry has to be opened to release the laundry, there are problems of also being inconvenient when gathering the laundry and taking a great amount of time.

[0012] Particularly, since the clothespins 54 need to hold the laundry strongly enough to prevent the laundry that is heavy due to being wet from falling when drying the laundry, an elastic force of the clothespins 54 is considerably strong, thus having a problem of requiring great effort when opening the clothespins 54 to hang or gather the laundry.

[Disclosure]

[Technical Problem]

[0013] The present invention is directed to providing a protruding-and-bent laundry hanger drying device and a laundry drying rack including the same which prevents, when a user hangs many pieces of laundry on the laundry drying rack in order to simultaneously dry them, the user's hand or the laundry from being caught in a drying pole support frame 50 to enable the user to make the laundry be instantly widened on a laundry hanger 33 by hanging the laundry on the laundry hanger 33 in a state where the user widens and hold both sides of the upper part of the laundry with both hands, enables the user to easily gather several pieces of laundry at once without having to hold each piece of laundry and pulling each piece of laundry above the drying poles 51 or pulling one side of each piece of laundry to reach ends of the drying poles 51 when gathering dried laundry from the laundry drying rack, and may be conveniently used by enabling laundry to be easily hung and also to be easily gathered by not having clothespins 54 holding the laundry by a strong elastic force to prevent the laundry from falling.

[Technical Solution]

[0014] As described above, according to the present invention, a protruding-and-bent laundry hanger drying device and a laundry drying rack including the same prevents, when a user hangs many pieces of laundry on the laundry drying rack in order to simultaneously dry them, the user's hand or the laundry from being caught in a drying pole support frame 50 to enable the user to make the laundry be instantly widened on a laundry hanger 33 by hanging the laundry on the laundry hanger 33 in a state where the user widens and hold both sides of the upper part of the laundry with both hands, enables several pieces of laundry to be easily gathered at once without having to hold each piece of laundry and pulling each piece of laundry above drying poles 51 or pulling one side of each piece of laundry to reach ends of the drying poles 51 when gathering dried laundry from the laundry drying rack, and may be conveniently used by enabling laundry to be easily hung and also to be easily gathered by not having clothespins 54 holding the laundry by a strong elastic force to prevent the laundry from falling.

[0015] Particularly, since laundry is instantly widened downward without another motion when a user hangs out the laundry on the laundry hangers 33 in a state where the user holds the laundry by widening both sides of an upper part of each piece of laundry toward both sides with both hands when hanging the laundry on a laundry drying rack to dry the laundry, a problem of being cumbersome and taking a great amount of time when hanging each piece of laundry one by one on the laundry drying rack is considerably improved. Also when gathering dried laundry, each piece of laundry has to be separately gathered one by one when using the laundry drying rack having the conventional drying poles 51, but when using the protruding-and-bent laundry hanger drying device and the laundry drying rack including the same of the present invention is used, several pieces of laundry may be simultaneously gathered and the laundry may be gathered naturally by reversely tilting a protruding-and-bent laundry hanger drying device 30 on which the laundry hangers 33 are mounted, thereby providing a very convenient laundry drying rack.

[0016] Specifically, to achieve the above objective, the present invention may provide a protruding-and-bent laundry hanger drying device including a mounting frame 38 and a laundry hanger transverse unit 34 formed of at least two laundry hangers 33 protruding downward from the mounting frame 38 and disposed to be spaced apart from each other in a transverse direction, wherein at least two of the laundry hanger transverse units 34 are disposed to be spaced apart from each other in a longitudinal direction.

[0017] Preferably, the laundry hanger transverse unit 34 may be formed of a mounting transverse bar 32 coupled to the mounting frame 38 throughout the transverse direction, and the at least two laundry hangers 33 are coupled to the mounting transverse bar 32 and spaced apart from each other.

[0018] Preferably, the laundry hanger transverse unit 34 may be formed at least two mounting longitudinal bars 31 coupled to the mounting frame 38 throughout the longitudinal direction, and the at least two laundry hangers 33 aligned in the transverse direction among the at least two laundry hangers 33 are coupled to each of the mounting longitudinal bars 31 and spaced apart from each other.

[0019] Preferably, the at least two mounting longitudinal bars 31 may be coupled to the mounting frame 38 throughout the longitudinal direction.

[0020] Preferably, at least two mounting transverse bars 32 may be coupled to the mounting frame 38 throughout the transverse direction.

[0021] Preferably, the laundry hanger transverse unit 34 may be formed of the at least two laundry hangers 33 aligned in the transverse direction among at least three of the laundry hangers 33 disposed to be spaced apart from each other in the transverse direction and in the longitudinal direction.

[0022] Preferably, the at least two laundry hangers 33 may be slidably coupled to the mounting transverse bar 32.

[0023] Preferably, a laundry hanger protrusion 71 may be formed at an end part of the laundry hanger 33 at which laundry is bent and hung.

[0024] Preferably, a cap 72 may cover an end part of the laundry hanger 33 at which laundry is bent and hung.

[0025] Preferably, a connection wire 73 that connects the laundry hangers 33 forming the laundry hanger transverse unit 34 may be included.

[0026] Preferably, a laundry hanger connection rod 74 that connects the laundry hangers 33 forming the laundry hanger transverse unit 34 may be included.

[0027] Preferably, a pressing elastic body 81 formed to be elastically deformable, coupled to the mounting frame 38, and located between the mounting frame 38 and the laundry hangers 33 to be configured to press and come in contact with the laundry hangers 33 in order to fix laundry hung on the laundry hangers 33 may be further included.

[0028] Preferably, a pressing elastic body 81 formed to be elastically deformable, coupled to the laundry hangers 33, and located between the mounting frame 38 and the laundry hangers 33 to be configured to press and come in contact with the laundry hangers 33 in order to fix laundry hung on the laundry hangers 33 may be further included.

[0029] Preferably, the laundry hangers 33 may be rotatably coupled to the mounting frame 38.

[0030] To achieve the above objective, another embodiment of the present invention provides a laundry drying rack including a protruding-and-bent laundry hanger drying device that includes a protruding-and-bent laundry hanger drying device 30 including a mounting frame 38 and a laundry hanger transverse unit 34 formed of at least two laundry hangers 33 protruding downward from the mounting frame 38 and disposed to be spaced apart from each other in a transverse direction, wherein at least two of the laundry hanger transverse units 34 are disposed to be spaced apart from each other in a longitudinal direction, and a support meeans to support the protruding-and-bent laundry hanger drying device.

[0031] Preferably, the support meeans may include a support stand 45 to which a rotational connection part 37 is coupled, and one pair of the protruding-and-bent laundry hanger drying devices 30 may be rotatably coupled to the rotational connection part 37.

[0032] Preferably, the support meeans may include a longitudinal support stand 47 fixed to an outer structure and having a rotational connection part 37 coupled thereto, and the protruding-and-bent laundry hanger drying device 30 may be rotatably coupled to the rotational connection part 37.

[Advantageous Effects]

[0033] According to the present invention, a protruding-and-bent laundry hanger drying device and a laundry drying rack including the same prevents, when a user hangs many pieces of laundry on the laundry drying rack in order to simultaneously dry them, the user's hand or the laundry from being caught in a drying pole support frame 50 to enable the user to make the laundry be instantly widened on a laundry hanger 33 by hanging the laundry on the laundry hanger 33 in a state where the user widens and hold both sides of the upper part of the laundry with both hands.

[0034] In addition, a protruding-and-bent laundry hanger drying device and a laundry drying rack including the same enables several pieces of laundry to be easily gathered at once without having to hold each piece of laundry and pulling each piece of laundry above drying poles 51 or pulling one side of each piece of laundry to reach ends of the drying poles 51 when gathering dried laundry from the laundry drying rack, and provides an advantageous effect of being used conveniently by enabling laundry to be easily hung and also to be easily gathered by not having clothespins 54 holding the laundry by a strong elastic force to prevent the laundry from falling.

[0035] Particularly, laundry is instantly widened downward without another motion when the user hangs out the laundry on the laundry hangers 33 in a state where the user holds the laundry by widening both sides of an upper part of each piece of laundry toward both sides with both hands when hanging the laundry on the laundry drying rack to dry the laundry, and the laundry may be freely hung on the laundry hangers 33 in a state where the user holds the laundry to be widened with both hands, thereby having an advantage of considerably improving a problem of being cumbersome and taking a great amount of time when hanging each piece of laundry one by one on the laundry drying rack.

[0036] Also when gathering dried laundry, although each piece of laundry has to be separately gathered one by one when using the laundry drying rack having conventional drying poles 51, several pieces of laundry may be simultaneously gathered and the laundry may be gathered naturally by reversely tilting a protruding-and-bent laundry hanger drying device 30 on which the laundry hangers 33 are mounted when using the protruding-and-bent laundry hanger drying device and the laundry drying rack including the same of the present invention, thereby having an advantage of considerably improving convenience in use.

[Description of Drawings]

[0037]

FIG. 1 is a perspective view of a conventional ceiling laundry drying rack.

FIG. 2 is a perspective view and a partially enlarged view of a conventional laundry drying rack stood on a floor.

FIG. 3 is a perspective view of a conventional laundry drying rack using an elastic body.

FIG. 4 is a front view of the conventional laundry drying rack using an elastic body.

FIG. 5 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to an embodiment of the present invention.

FIG. 6 is a front view of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention of FIG. 5.

FIG. 7 is a perspective view illustrating a laundry hanger disposed at the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention.

FIG. 8 is a front view illustrating the laundry hanger disposed at the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention.

FIG. 9 is a perspective view illustrating a state in which laundry is hung on the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention.

FIG. 10 is a front view illustrating the state in which laundry is hung on the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention.

FIG. 11 is a front view illustrating a state in which laundry is being lowered by the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device being reversely tilted according to the embodiment of the present invention.

FIG. 12 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to another embodiment of the present invention.

FIG. 13 is a perspective view of a protruding-and-bent laundry hanger drying device according to another embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

FIG. 14 is a perspective view of a protruding-and-bent laundry hanger drying device according to still another embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

FIG. 15 is a perspective view of a protruding-and-bent laundry hanger drying device according to a fourth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

FIG. 16 is a perspective view of a protruding-and-bent laundry hanger drying device according to a fifth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

FIG. 17 is a perspective view of a protruding-and-bent laundry hanger drying device according to a sixth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

FIG. 18 is a front view of a laundry hanger disposed at the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention illustrated in FIG. 17.

FIG. 19 is a perspective view of a mounting frame and a laundry hanger according to another embodiment among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

FIG. 20 is a front view of the mounting frame and the laundry hanger according to another embodiment among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

FIG. 21 is a perspective view of a mounting frame and a laundry hanger according to still another embodiment among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

FIG. 22 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to still another embodiment of the present invention.

FIG. 23 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to the fourth embodiment of the present invention.

FIG. 24 is a front view of a mounting frame and a laundry hanger among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the fourth embodiment of the present invention illustrated in FIG. 23.

FIG. 25 is a perspective view of a mounting frame and a laundry hanger and a pressing elastic body among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the fifth embodiment of the present invention.

FIG. 26 is a front view of the mounting frame and the laundry hanger and the pressing elastic body among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device

according to the fifth embodiment of the present invention.

FIG. 27 is a perspective view of a mounting frame and a laundry hanger and a pressing elastic body among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention.

FIG. 28 is a front view of the mounting frame and the laundry hanger and the pressing elastic body among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention.

FIG. 29 is a front view of the mounting frame and the laundry hanger among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention.

FIG. 30 is a perspective view of a pressing elastic body inserted into the mounting frame of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention.

FIG. 31 is a front view illustrating the mounting frame and the laundry hanger and the pressing elastic body and a part of hung laundry among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention.

FIG. 32 is a front view of a mounting frame and a laundry hanger and a pressing elastic body among a part of a protruding-and-bent laundry hanger drying device of a laundry drying rack including the protruding-and-bent laundry hanger drying device according to a seventh embodiment of the present invention.

FIG. 33 is a front view of a mounting frame and a laundry hanger among a part of a protruding-and-bent laundry hanger drying device of a laundry drying rack including the protruding-and-bent laundry hanger drying device according to an eighth embodiment of the present invention.

[Modes of the Invention]

[0038] Hereinafter, exemplary embodiments of the present invention will be described in detail with reference to the accompanying drawings. Objectives, particular advantages, and new characteristics of the present invention will become more apparent from detailed description and exemplary embodiments below related to the accompanying drawings. Also, the terms or words used in this specification and claims should not be construed as limited to general or dictionary meanings, but based on a principle that an inventor may properly define a term to describe his or her invention in the best possible way, should be construed as meanings and concepts corresponding to the technical spirit of the present invention. Also, in describing the present invention, detailed description of related known art that may unnecessarily obscure the essence of the present invention will be omitted.

[0039] FIG. 5 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to an embodiment of the present invention, FIG. 6 is a front view of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention of FIG. 5, FIG. 7 is a perspective view illustrating a laundry hanger disposed at the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention, FIG. 8 is a front view illustrating the laundry hanger disposed at the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention, FIG. 9 is a perspective view illustrating a state in which laundry is hung on the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention, FIG. 10 is a front view illustrating the state in which laundry is hung on the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention, FIG. 11 is a front view illustrating a state in which laundry is being lowered by the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device being reversely tilted according to the embodiment of the present invention, FIG. 12 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to another embodiment of the present invention, FIG. 13 is a perspective view of the protruding-and-bent laundry hanger drying device according to another embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, FIG. 14 is a perspective view of a protruding-and-bent laundry hanger drying device according to still another embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, FIG. 15 is a perspective view of a protruding-and-bent laundry hanger drying device according to a fourth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, FIG. 16 is a perspective view of a protruding-and-bent laundry hanger drying device according to a fifth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, FIG. 17 is a perspective view of a protruding-and-bent laundry hanger drying de-

vice according to a sixth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, FIG. 18 is a front view of a laundry hanger disposed at the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention illustrated in FIG. 17, FIG. 19 is a perspective view of a mounting frame and a laundry hanger according to another embodiment among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, FIG. 20 is a front view of the mounting frame and the laundry hanger according to another embodiment among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, FIG. 21 is a perspective view of a mounting frame and a laundry hanger according to still another embodiment among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, FIG. 22 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to still another embodiment of the present invention, FIG. 23 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to the fourth embodiment of the present invention, FIG. 24 is a front view of a mounting frame and a laundry hanger among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the fourth embodiment of the present invention illustrated in FIG. 23, FIG. 25 is a perspective view of a mounting frame and a laundry hanger and a pressing elastic body among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the fifth embodiment of the present invention, FIG. 26 is a front view of the mounting frame and the laundry hanger and the pressing elastic body among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the fifth embodiment of the present invention, FIG. 27 is a perspective view of a mounting frame and a laundry hanger and a pressing elastic body among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention, FIG. 28 is a front view of the mounting frame and the laundry hanger and the pressing elastic body among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention, FIG. 29 is a front view of the mounting frame and the laundry hanger among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention, FIG. 30 is a perspective view of a pressing elastic body inserted into the mounting frame of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention, FIG. 31 is a front view illustrating the mounting frame and the laundry hanger and the pressing elastic body and a part of hung laundry among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention, FIG. 32 is a front view of a mounting frame and a laundry hanger and a pressing elastic body among a part of a protruding-and-bent laundry hanger drying device of a laundry drying rack including the protruding-and-bent laundry hanger drying device according to the seventh embodiment of the present invention, and FIG. 33 is a front view of a mounting frame and a laundry hanger among a part of a protruding-and-bent laundry hanger drying device of a laundry drying rack including the protruding-and-bent laundry hanger drying device according to an eighth embodiment of the present invention.

[0040] FIG. 5 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to an embodiment of the present invention, and FIG. 6 is a front view of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention of FIG. 5, both of which illustrate a state of a drying rack when drying laundry. FIG. 7 is a perspective view illustrating a protruding-and-bent laundry hanger disposed at the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention, FIG. 8 is a front view illustrating the protruding-and-bent laundry hanger disposed at the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention, wherein one side of a protruding-and-bent laundry hanger is coupled to a mounting frame 38 and the other side is bent upward.

[0041] As illustrated in FIGS. 5 and 6, two c-shaped mounting frames 38 are rotatably coupled to two support stands 45, which stand while being spaced apart from each other by a fixing stand 46, by a rotational connection part 37 and are obliquely tilted toward the top while being spaced apart toward both left and right sides.

[0042] In addition, the mounting frames 38 each include mounting longitudinal bars 31 disposed at both sides, a mounting bar fixing stand 39 coupled to an upper end part of each of the mounting longitudinal bars 31, and the rotational connection part 37 coupled to a lower end part of each of the mounting longitudinal bars 31,

thereby being rotatably coupled to the support stands 45 that support a protruding-and-bent laundry hanger drying device 30 while being disposed at a lower part.

[0043] Here, each of the mounting frames 38 may be formed of two of the mounting longitudinal bars 31 and the mounting bar fixing stand 39. Also, a plurality of laundry hangers 33 are coupled to each of the mounting longitudinal bars 31 in a direction in which laundry is being hung, i.e. to protrude upward while being outward.

[0044] Here, among the laundry hangers 33 disposed at the mounting longitudinal bars 31 disposed at both sides of each of the mounting frames 38, the laundry hangers 33 corresponding to each other at transverse positions form a laundry hanger transverse unit 34 at which a user may widen and hang laundry in a state where the user holds the laundry by widening both sides of an upper part of the laundry toward both sides with both hands. Since the plurality of laundry hangers 33 are longitudinally disposed at the mounting longitudinal bars 31 disposed at both sides of the mounting frames 38, the plurality of laundry hanger transverse units 34 are formed at the mounting frames 38 such that the user may widen and hang laundry in a state of holding several pieces of laundry by widening both sides of upper parts of the several pieces of laundry toward both sides with both hands.

[0045] In addition, a rotational connection part shaft 29 is disposed between two of the rotational connection parts 37 such that the rotational connection parts 37 are firmly coupled. Also, the mounting frames 38 are rotatably coupled to the support stands 45 and fixed by rotation fixing mechanisms 49 when rotated up to a predetermined position. Although there are various methods for a method of fixing rotations of the mounting frames 38 and the support stands 45, here, a method in which the rotation of the mounting frames 38 and the support stands 45 is fixed by the rotation fixing mechanisms 49 being locked to locking protrusions 44 is illustrated.

[0046] As illustrated in an enlarged view of two of the laundry hangers 33 adjacent in a longitudinal direction of FIG. 6, since there is no obstacle that blocks an entrance and an exit between the two laundry hangers 33, it can be recognized that a user's hands holding laundry and the laundry held by the user's hands may freely enter and exit in a direction C when hanging the laundry on the laundry hangers 33 for drying the laundry.

[0047] FIG. 7 is a perspective view illustrating a laundry hanger disposed at the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention, and FIG. 8 is a front view illustrating the laundry hanger disposed at the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention.

[0048] As illustrated in FIGS. 7 and 8, the laundry hanger 33 may be longitudinally formed in a longitudinal direction, and may have an end part bent upward.

[0049] FIG. 9 is a perspective view illustrating a state in which laundry is hung on the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention, and FIG. 10 is a front view illustrating the state in which laundry is hung on the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the embodiment of the present invention.

[0050] As illustrated in FIGS. 9 and 10, an upper part of each piece of laundry is widened toward both sides such that both sides of the upper part of each of the pieces of laundry is hung on the laundry hangers 33 at both sides of the laundry hanger transverse unit 34 that is formed by the laundry hangers 33 corresponding to each other at transverse positions among the laundry hangers 33 disposed at each of the mounting longitudinal bars 31 disposed at both sides of each of the mounting frames 38, and an opposite part of each of the pieces of laundry is stretched downward as it is by its own weight.

[0051] Like this, the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the present invention includes the laundry hanger transverse unit 34 formed by the laundry hangers 33 corresponding to each other at transverse positions among the laundry hangers 33 each disposed at the mounting longitudinal bars 31 disposed at both sides of each of the mounting frames 38. When the user hangs both sides of one part of laundry on the laundry hangers 33 at both sides of the laundry hanger transverse unit 34 by widening the both sides of the one part of the laundry with both hands, the opposite part of the laundry may be widened while being naturally lowered due to the weight of the laundry, and the widened laundry may be dried as it is.

[0052] Here, when the user attempts to hang laundry on the laundry hangers 33 of the laundry hanger transverse unit 34 at an upper part first and hang laundry on the laundry hangers 33 of the laundry hanger transverse unit 34 at a lower part later, since it is very inconvenient due to the laundry hung on the laundry hangers 33 of the laundry hanger transverse unit 34 at the upper part being stretched downward, it is preferable that the user hangs laundry on the laundry hangers 33 of the laundry hanger transverse unit 34 at the upper part after hanging the laundry on the laundry hangers 33 of the laundry hanger transverse unit 34 at the lower part first.

[0053] In addition, since the laundry hangers 33 of the laundry hanger transverse unit 34 at the upper part are formed relatively outward of the laundry drying rack, and the laundry hangers 33 of the laundry hanger transverse unit 34 at the lower part are formed relatively inward toward the center of the laundry drying rack, the laundry may be efficiently dried due to pieces of laundry stretched downward not overlapping with each other and being spaced apart from each other.

[0054] In addition, when gathering the laundry after the laundry is dried, when a part stretched downward of each piece of laundry hung on the protruding-and-bent laundry hanger drying device 30 is held and pulled in a direction

B and a direction B', both of which are illustrated in FIG. 10, each of the pieces of laundry that has been bent and hung on the laundry hangers 33 is widened instead of being bent such that the laundry may be easily gathered due to a sliding friction between the laundry and the laundry hangers 33 being decreased. Here, a convenience in use is high since parts stretched downward of several pieces of laundry hung on the protruding-and-bent laundry hanger drying device 30 may be simultaneously held and pulled in the direction B and the direction B' to be simultaneously gathered.

[0055] FIG. 11 is a front view illustrating a state in which laundry is being lowered by the protruding-and-bent laundry hanger drying device being reversely tilted.

[0056] As illustrated in FIG. 11, the protruding-and-bent laundry hanger drying devices 30 rotatably coupled to the support stands 45 may rotate in a direction A and a direction A' respectively, causing upper parts of the mounting frames 38 that have been at upper parts when drying laundry to come downward.

[0057] Since all of the parts of the laundry hangers 33 bent to have laundry hung thereon that have been protruding upward protrude downward in the above state, the laundry that has been bent and hung on the laundry hangers 33 is widened such that the sliding friction between the laundry hangers 33 and the laundry sharply decreases and the laundry naturally drops downward, allowing the user to easily gather the laundry.

[0058] Here, the rotation fixing mechanisms 49 that fix the mounting frames 38 from rotating with respect to the support stands 45 are shown as being deviated from the locking protrusions 44 of the rotation fixing mechanisms and being dropped downward.

[0059] When gathering dried laundry, the laundry may be easily gathered by causing all parts at which the laundry is bent and hung face downward by tilting the protruding-and-bent laundry hanger drying device 30.

[0060] In addition, when the protruding-and-bent laundry hanger drying device 30 is the same as when drying laundry, when parts stretched downward of several pieces of laundry hung on the laundry hangers 33 protruding upward are simultaneously held and obliquely pulled in a direction toward the top of the laundry drying rack, the several pieces of laundry that have been bent and hung on the laundry hangers 33 become widened such that the sliding friction between the laundry hangers 33 and the laundry sharply decreases and the laundry easily slides, thereby easily gathering the several pieces of laundry at once.

[0061] FIG. 12 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to another embodiment of the present invention.

[0062] As illustrated in FIG. 12, one protruding-and-bent laundry hanger drying device 30 may be rotatably coupled to a longitudinal support stand 47 fixed to a longitudinal object. As illustrated, also in this case, when hanging laundry on laundry hangers 33 to dry the laundry, the user's hands holding the laundry and the laundry held by the user's hands may freely enter and exist a gap between the laundry hangers 33 adjacent to each other in the longitudinal direction.

[0063] In addition, since, among the laundry hangers 33 coupled to the mounting frame 38, the laundry hangers 33 coupled at a relatively upper part are more outward toward the user hanging laundry than the laundry hangers 33 coupled at a lower part, and the laundry hangers 33 coupled at a relatively lower part are more inward toward an opposite side of the user hanging the laundry than the laundry hangers 33 coupled to the upper part, the user hanging the laundry may hang the laundry on the laundry hangers 33 located at the lower part first and then hang the laundry on the laundry hangers 33 located at the upper part when drying the laundry.

[0064] In addition, when gathering laundry after the laundry is dried, when the protruding-and-bent laundry hanger drying device 30 is rotated in the direction A to cause parts of the laundry hangers 33 at which the laundry is bent and hung face downward, the laundry that has been bent and hung on the laundry hangers 33 is widened instead of being bent such that the sliding friction between the laundry and the laundry hangers 33 decreases, causing the laundry to be naturally gathered.

[0065] Or, when the parts of the laundry stretched downward are held and pulled in the direction B, the laundry that has been bent and hung on the laundry hangers 33 is widened instead of being bent such that the sliding friction between the laundry and the laundry hangers 33 decreases, enabling the laundry to be easily gathered.

[0066] Like this, a support meeans for the protruding-and-bent laundry hanger drying device that supports the protruding-and-bent laundry hanger drying device 30 may be implemented in various ways.

[0067] FIG. 13 is a perspective view of the protruding-and-bent laundry hanger drying device according to another embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

[0068] As illustrated in FIG. 13, a mounting frame 38 is formed of a plurality of mounting transverse bars 32 and two mounting longitudinal bars 31, and a plurality of laundry hangers 33 are disposed at each of the mounting transverse bars 32 and the mounting longitudinal bars 31.

[0069] Since the plurality of laundry hangers 33 are disposed at each of the mounting transverse bars 32, several pieces of laundry may be hung on the laundry hanger transverse unit 34 formed by the plurality of laundry hangers 33 disposed in a transverse direction.

[0070] One piece of laundry or several pieces of laundry may be hung on the plurality of laundry hangers 33 forming one laundry hanger transverse unit 34.

[0071] FIG. 14 is a perspective view of a protruding-and-bent laundry hanger drying device according to still another embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

[0072] As illustrated in FIG. 14, a mounting frame 38 is formed of a plurality of mounting longitudinal bars 31, bar fixing stands 39 are coupled to end parts of the mounting longitudinal bars 31, and a plurality of laundry hangers 33 are disposed at each of the mounting longitudinal bar 31.

[0073] Since the plurality of laundry hangers 33 are disposed at each of the mounting longitudinal bars 31, several pieces of laundry may be hung on the laundry hanger transverse unit 34 formed by the plurality of laundry hangers 33 disposed in the transverse direction. One piece of laundry or several pieces of laundry may be hung on the plurality of laundry hangers 33 forming one laundry hanger transverse unit 34.

[0074] FIG. 15 is a perspective view of a protruding-and-bent laundry hanger drying device according to a fourth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

[0075] As illustrated in FIG. 15, a mounting frame 38 is formed of a plurality of mounting longitudinal bars 31 and mounting transverse bars 32, mounting bar fixing stands 39 are coupled to end parts of the mounting longitudinal bars 31, and laundry hangers 33 are respectively disposed at positions at which each of the mounting longitudinal bars 31 and each of the mounting transverse bars 32 intersect.

[0076] Since a plurality of laundry hangers 33 are disposed in the transverse direction and in the longitudinal direction, several pieces of laundry may be hung on a laundry hanger transverse unit 34 formed by the plurality of laundry hangers 33 disposed in the transverse direction. One piece of laundry or several pieces of laundry may be hung on the plurality of laundry hangers 33 forming one laundry hanger transverse unit 34.

[0077] As described above, the mounting frame 38 to which the plurality of laundry hangers 33 are coupled in the transverse direction and in the longitudinal direction may be formed only of the mounting transverse bars 32, may be formed only of the mounting longitudinal bars 31, may include both of the mounting transverse bars 32 and the mounting longitudinal bars 31, or may be formed of planes.

[0078] In this manner, the mounting frame 38 may be formed of the plurality of mounting transverse bars 32 or the plurality of mounting longitudinal bars 31, or may be formed of the plurality of mounting transverse bars 32 and mounting longitudinal bars 31. Also, the protruding-and-bent laundry hanger drying device 30 may be formed by the plurality of laundry hangers 33 being coupled to the mounting frame 38 in the transverse direction and in the longitudinal direction.

[0079] FIG. 16 is a perspective view of a protruding-and-bent laundry hanger drying device according to a fifth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

[0080] As illustrated in FIG. 16, a mounting frame 38 is formed of a plane, and has a plurality of laundry hangers 33 disposed in the transverse direction and in the longitudinal direction. a laundry hanger transverse unit 34 formed by having the plurality of laundry hangers 33 disposed in the transverse direction are formed in a plurality in the longitudinal direction such that hanging several pieces of laundry by widening the pieces of laundry in the transverse direction is possible. One piece of laundry or several pieces of laundry may be hung on the plurality of laundry hangers 33 of one laundry hanger transverse unit 34.

[0081] FIG. 17 is a perspective view of a protruding-and-bent laundry hanger drying device according to a sixth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, and FIG. 18 is a front view of a protruding-and-bent laundry hanger disposed at the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention illustrated in FIG. 17.

[0082] As illustrated in FIGS. 17 and 18, a plurality of mounting transverse bars 32 are coupled to a mounting frame 38, and a plurality of laundry hangers 33 are disposed at each of the mounting transverse bars 32. Here, as illustrated in FIG. 18, a transverse bar insertion hole 28 is formed at a part at which the laundry hanger 33 is coupled to the mounting transverse bar 32. The mounting transverse bar 32 is inserted through the transverse bar insertion hole 28, and the laundry hanger 33 is slidably coupled in the transverse direction along the mounting transverse bar 32.

[0083] Here, the plurality of laundry hangers 33 are disposed at one mounting transverse bar 32 such that, when hanging several pieces of laundry on one laundry hanger transverse unit 34 by widening the several pieces of laundry in the transverse direction, a piece of laundry with a wide transverse width may be hung by widening a gap between the laundry hangers 33. Also, since a piece of laundry with a narrow transverse width may be hung by narrowing the gap between the laundry hangers 33, several pieces of laundry may be effectively hung.

[0084] FIG. 19 is a perspective view of a mounting frame of a protruding-and-bent laundry hanger and a protruding-and-bent laundry hanger according to another embodiment among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention, and FIG. 20 is a front view of the mounting frame of a protruding-and-bent laundry hanger and the protruding-and-bent laundry hanger according to another embodiment among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention.

[0085] As illustrated in FIGS. 19 and 20, the laundry

hangers 33 are coupled to the mounting longitudinal bar 31. A characteristic of the laundry drying rack including the protruding-and-bent laundry hanger drying device of the present invention is that laundry is bent and hung on the laundry hangers 33 when the laundry is being dried, and an opposite part of the laundry being hung to the laundry hangers 33 is dropped downward due to weight of the laundry such that the laundry does not slide due to a large sliding friction between the laundry hangers 33 and the laundry.

[0086] In addition, when gathering the laundry, the laundry that has been bent and hung on the laundry hangers 33 is not bent but widened to decrease the sliding friction between the laundry hangers 33 and the laundry to allow the laundry to easily slide from the laundry hangers 33, thereby the laundry is hanged and dried with a simple and easy motion and the dried laundry is gathered with a simple and easy motion. To make sure that the above action occurs, the sliding friction between the laundry hangers 33 and the laundry needs to be large when the laundry is bent and hung on the laundry hangers 33, and the sliding friction between the laundry hangers 33 and the laundry needs to be definitely small when the laundry that has been bent and hung on the laundry hangers 33 is not bent but widened.

[0087] A laundry hanger protrusion 71 is formed at a part of the laundry hanger 33 where the laundry is bent and hung to satisfy the above condition. When the laundry comes in contact with the laundry hanger protrusion 71 and is bent, the laundry hanger protrusion 71 is inserted into a surface of the laundry, causing the sliding friction between the laundry hanger 33 and the laundry to be extremely large. Also, when the laundry that has been bent and hung on the laundry hanger 33 is not bent but widened when gathering the laundry, the sliding friction between the laundry hanger 33 and the laundry decreases due to the laundry hanger protrusion 71 that has been inserted into the surface of the laundry being separated from the surface of the laundry.

[0088] The laundry hanger protrusion 71 may be formed such that the sliding friction between the laundry hanger 33 and the laundry increases when the laundry is bent and hung on the laundry hanger 33 and the sliding friction between the laundry hanger 33 and the laundry is definitely small when the laundry that has been bent and hung on the laundry hanger 33 is not bent but widened, and may be formed in various shapes and sizes.

[0089] FIG. 21 is a perspective view of a mounting frame of a protruding-and-bent laundry hanger and a protruding-and-bent laundry hanger according to still another embodiment among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including a protruding-and-bent laundry hanger drying device according to the present invention. As illustrated in FIG. 21, the laundry hangers 33 may be coupled to the mounting longitudinal bar 31. Also, a cap 72 may cover each of the laundry hangers 33.

[0090] The cap 72 is formed of a material with a large friction such as rubber to cover a part of the laundry hanger 33 at which the laundry is bent and hung. The cap 72 may be formed with various sizes, shapes, and materials as long as the cap 72 increases the sliding friction between the laundry hanger 33 and the laundry when the laundry is bent and hung on the laundry hanger 33 and decreases the sliding friction between the laundry hanger 33 and the laundry when the laundry that has been bent and hung on the laundry hanger 33 is not bent but widened

[0091] FIG. 22 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to still another embodiment of the present invention.

[0092] As illustrated in FIG. 22, a connection wire 73 may be disposed between laundry hangers 33 at both sides of a laundry hanger transverse unit 34 formed by two of the laundry hangers 33 disposed in the transverse direction at a mounting frame 38 such that the laundry is hung while being widened in the transverse direction.

[0093] The connection wire 73 serves to prevent a central part of laundry from drooping when the laundry is hung on the laundry hangers 33 at both sides of the laundry hanger transverse unit 34 while being widened in the transverse direction.

[0094] FIG. 23 is a perspective view of a laundry drying rack including a protruding-and-bent laundry hanger drying device according to the fourth embodiment of the present invention, and FIG. 24 is a front view of a mounting frame and a laundry hanger among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the fourth embodiment of the present invention illustrated in FIG. 23.

[0095] As illustrated in FIGS. 23 and 24, a laundry hanger connection rod 74 may be disposed between the laundry hangers 33 at both sides of the laundry hanger transverse unit 34 formed by the two laundry hangers 33 disposed at the mounting frame 38 in the transverse direction for the laundry to be hung while being widened in the transverse direction.

[0096] The laundry hanger connection rod 74 serves to prevent a central part of laundry from drooping when the laundry is hung on the laundry hangers 33 at both sides of the laundry hanger transverse unit 34 while being widened in the transverse direction. Also, as illustrated in FIG. 23, when the laundry is hung while being widened in the transverse direction longer than a distance between the laundry hangers 33 at both sides and wider than a distance between the laundry hangers 33 at both sides, the laundry hanger connection rod 74 may also prevent parts of the laundry sticking toward an outside that is not between the laundry hangers 33 at both sides from drooping.

[0097] This seems to be similar to the conventional laundry drying rack illustrated in FIG. 2, but the conventional laundry drying rack illustrated in FIG. 2 has the following problems.

[0098] First, a drying pole support frame 50 that supports drying poles 51 is formed on almost the same plane as the drying poles 51 such that the drying pole support frame 50 gets in the way when hanging laundry on the drying poles 51, making it impossible for a user to instantly hang laundry on the drying poles 51 in a state of holding the laundry by widening the laundry toward both sides with both hands and pulling the laundry over the drying poles 51. The user has to first hang the laundry on the drying poles 51, release a grip, then hold parts that have passed over the drying poles 51 to pull the parts, and each piece of laundry has to be pushed upward between the drying poles 51 to be hung on the drying poles 51 and then pulled downward to stretch the laundry toward both sides of the drying poles 51 to similar extents, thus having problems of being inconvenient and taking a great amount of time when hanging the laundry.

[0099] In addition, there is a problem of having to hold each piece of the laundry and pull each of the pieces of the laundry above the drying poles 51 or pull one side of each of the pieces of the laundry to reach ends of the drying poles 51.

[0100] Meanwhile, in the fourth embodiment of the present invention illustrated in FIGS. 23 and 24, since the laundry hangers 33 protrude from the mounting frame 38 and the laundry hanger connection rods 74 are coupled to parts at which laundry is bent and held at the protruding laundry hangers 33, the mounting frame 38 is not formed on the same plane as the part at which the laundry is bent and held on the laundry hangers 33 or the laundry hanger connection rods 74, thereby having an advantage in which, when the user hangs out the laundry on the laundry hangers 33 and the laundry hanger connection rods 74 to dry the laundry, the user's hands holding the laundry and the laundry held by the user's hands may freely enter and exist a gap between the laundry hangers 33 and the laundry hanger connection rods 74 adjacent to each other in the longitudinal direction.

[0101] In addition, the user may instantly hang the laundry on the laundry hangers 33 and the laundry hanger connection rods 74 in a state of holding the laundry with hands and the laundry that has been bent and hung at the laundry hangers 33 and the laundry hanger connection rods 74 is not bent but widened when gathering the laundry, thus causing the sliding friction between the laundry hangers 33 and the laundry hanger connection rods 74 and the laundry to decrease and allowing the laundry to easily slide from the laundry hangers 33 and the laundry hanger connection rods 74, thereby having an advantage of being able to simultaneously gather several pieces of laundry, unlike the prior art.

[0102] Particularly, since laundry may be deeply hung on the laundry hangers 33 and the laundry hanger connection rods 74 when drying the laundry as a gap from a part of the laundry hangers 33 at which the laundry is bent and hung at the mounting frame 38 up to the laundry hanger connection rods 74 is greater, i.e. as the length of the laundry hangers 33 is longer, the laundry may be firmly hung without sliding.

[0103] FIG. 25 is a perspective view of a mounting frame and a laundry hanger and a pressing elastic body among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the fifth embodiment of the present invention, and FIG. 26 is a front view of the mounting frame and the laundry hanger and the pressing elastic body among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the fifth embodiment of the present invention.

[0104] As illustrated in FIGS. 25 and 26, a pressing elastic body 81 is coupled to the mounting frame 38. Elasticity of the pressing elastic body 81 acts on the laundry hanger 33. The pressing elastic body 81 is configured to be fixed and coupled to the mounting frame 38 and not to be coupled to the laundry hanger 33 but to come in contact with the laundry hanger 33 by elasticity.

[0105] When the user inserts laundry between the laundry hanger 33 and the pressing elastic body 81 while hanging the laundry on the laundry hanger 33 to dry the laundry, the pressing elastic body 81 presses the laundry with elasticity to make the laundry be definitely bent such that the laundry is more firmly hung on the laundry hanger 33. Also, when the user gathers up the dried laundry, the laundry that has been bent and hung on the laundry hanger 33 is not bent but widened and the laundry that has been inserted between the pressing elastic body 81 and the laundry hanger 33 comes out from a part between the pressing elastic body 81 and the laundry hanger 33.

[0106] The pressing elastic body 81 has to have proper elasticity that may enable laundry to easily come out from the part between the pressing elastic body 81 and the laundry hanger 33 when gathering up the dried laundry while also enabling the laundry to be firmly fixed when being dried, and may be formed in various shapes and sizes.

[0107] In addition, a protrusion may be formed at a part at which the pressing elastic body 81 comes in contact with laundry to press the laundry in order to more firmly fix the laundry and prevent the laundry from falling.

[0108] FIG. 27 is a perspective view of a mounting frame and a laundry hanger and a pressing elastic body among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention, FIG. 28 is a front view of the mounting frame and the laundry hanger and the pressing elastic body among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention, FIG. 29 is a front view of the mounting frame and the laundry hanger among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-

and-bent laundry hanger drying device according to the sixth embodiment of the present invention, FIG. 30 is a perspective view of a bent pressing elastic body for laundry inserted into the mounting frame of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention, and FIG. 31 is a front view illustrating the mounting frame and the laundry hanger and the pressing elastic body and a part of hung laundry among a part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the sixth embodiment of the present invention.

[0109] As illustrated in FIGS. 27 to 31, a pressing elastic body 81 is inserted into the mounting frame 38 and laundry bent and hung on the laundry hanger 33 is inserted between inner surfaces of the pressing elastic body 81 and the mounting frame 38 to be pressed.

[0110] The pressing elastic body 81 is inserted into the mounting frame 38. Specifically, the pressing elastic body 81 illustrated in FIG. 30 is inserted and mounted on an inner accommodation space of the mounting frame 38 as illustrated in FIG. 29.

[0111] An action of this structure is not much different from actions of the mounting frame, the laundry hanger, and the pressing elastic body among the part of the protruding-and-bent laundry hanger drying device of the laundry drying rack including the protruding-and-bent laundry hanger drying device according to the fifth embodiment of the present invention illustrated in FIGS. 25 and 26, and the mounting the pressing elastic body 81 on the mounting frame 38 is greatly facilitated.

[0112] In this manner, the pressing elastic body 81 may be mounted at an inner part or an outer part of the mounting frame 38 and may be in various shapes. Although the one illustrated presses only one side surface of laundry, the pressing elastic body 81 may also have a structure of pressing both side surfaces of laundry.

[0113] FIG. 32 is a front view of a mounting frame and a laundry hanger and a pressing elastic body among a part of a protruding-and-bent laundry hanger drying device of a laundry drying rack including the protruding-and-bent laundry hanger drying device according to the seventh embodiment of the present invention.

[0114] As illustrated in FIG. 32, a pressing elastic body 81 may be coupled to a laundry hanger 33 and laundry being bent and hung on the laundry hanger 33 may be inserted between the pressing elastic body 81 and the laundry hanger 33 to be pressed.

[0115] In this manner, the pressing elastic body 81 may be mounted on the mounting frame 38 or mounted on the laundry hanger 33 to make the laundry hung on the laundry hanger 33 be definitely bent while pressing the laundry with elasticity to enable the laundry to be firmly hung on the laundry hanger 33 and prevent the laundry from falling.

[0116] FIG. 33 is a front view of a mounting frame and a laundry hanger among a part of a protruding-and-bent laundry hanger drying device of a laundry drying rack including the protruding-and-bent laundry hanger drying device according to an eighth embodiment of the present invention. As illustrated, laundry hangers 33 may be quite long and coupled to a mounting frame 38 to be rotatable around laundry hanger rotation shafts 35 such that each of the laundry hangers 33 may rotate in a direction D.

[0117] In addition, since laundry has to be hung on the laundry hangers 33 when drying the laundry, the laundry hangers 33 are locked to rotation stoppers 36 to be prevented from over-rotating in a direction opposite to the direction D. To prevent a volume from becoming large due to the laundry hangers being long when folding and storing the laundry hangers after drying the laundry is finished, the laundry hangers 33 are rotated and folded to have a small volume, thus being conveniently stored.

[0118] As described above, problems of being very inconvenient and taking a great amount of time when hanging or gathering laundry due to the drying pole support frame 50 of the conventional laundry drying rack in which the laundry is hung on the drying poles are solved by making the laundry hangers 33 on which laundry is hung and the mounting frame 38 to which the laundry hangers 33 are coupled not formed on the same place and be detached from each other.

[0119] In addition, since the laundry drying rack that dries laundry by gripping the laundry with an elastic body such as clothespins 54 has to press the laundry with strong elasticity, there are problems of requiring great effort when opening the clothespins 54 to hang or gather the laundry and taking a great amount of time. The laundry drying rack of the present invention is one that solves the problems and considerably improves convenience.

[0120] Particularly, a laundry drying rack including a protruding-and-bent laundry hanger drying device of the present invention has laundry bent and hung at the plurality of laundry hangers 33 mounted on the mounting frame 38 to protrude in the transverse direction and in the longitudinal direction to prevent the laundry from sliding. Since the laundry is deeply hung to not slide as a distance in which the laundry hangers 33 protrude from the mounting frame 38 is long, i.e. as the length of the laundry hangers 33 are long, the length of the laundry hangers 33 are preferably maximum but should be a proper length that does not cause a size of the laundry drying rack including the protruding-and-bent laundry hanger drying device of the present invention to be too large.

[0121] The laundry drying rack including the protruding-and-bent laundry hanger drying device of the present invention is not limited to the above embodiments and may be modified in various ways within the scope permissible by the technical spirit of the present invention.

<Description of reference numerals>

[0122] 28: transverse bar insertion hole, 29: rotational connection part shaft, 30: protruding-and-bent laundry

hanger drying device, 31: mounting longitudinal bar, 32: mounting transverse bar, 33: laundry hanger, 34: laundry hanger transverse unit, 35: laundry hanger rotation shaft, 36: rotation stopper, 37: rotational connection part, 38: mounting frame, 39: mounting bar fixing stand, 44: locking protrusion of rotation fixing mechanism, 45: support stand, 46: fixing stand, 47: longitudinal support stand, 49: rotation fixing mechanism, 50: drying pole support frame, 51: drying poles, 52: X-link combination device, 53: handle, 54: clothespin, 55: drying rack frame, 56: clothespin frame, 71: laundry hanger protrusion, 72: cap, 73: connection wire, 74: laundry hanger connection rod, 81: pressing elastic body

Claims

1. A protruding-and-bent laundry hanger drying device comprising:

a mounting frame (38); and
a laundry hanger transverse unit (34) formed of at least two laundry hangers (33) protruding downward from the mounting frame (38) and disposed to be spaced apart from each other in a transverse direction,

wherein at least two of the laundry hanger transverse units (34) are disposed to be spaced apart from each other in a longitudinal direction.

2. The protruding-and-bent laundry hanger drying device according to claim 1, wherein the laundry hanger transverse unit (34) is formed of a mounting transverse bar (32) coupled to the mounting frame (38) throughout the transverse direction, and the at least two laundry hangers (33) are coupled to the mounting transverse bar (32) and spaced apart from each other.

3. The protruding-and-bent laundry hanger drying device according to claim 1, wherein the laundry hanger transverse unit (34) is formed at least two mounting longitudinal bars (31) coupled to the mounting frame (38) throughout the longitudinal direction, and the at least two laundry hangers (33) aligned in the transverse direction among the at least two laundry hangers (33) are coupled to each of the mounting longitudinal bars (31) and spaced apart from each other.

4. The protruding-and-bent laundry hanger drying device according to claim 3, wherein at least two mounting transverse bars (32) are coupled to the mounting frame (38) throughout the transverse direction.

5. The protruding-and-bent laundry hanger drying device according to claim 1, wherein the laundry hanger transverse unit (34) is formed of the at least two laundry hangers (33) aligned in the transverse direction among at least three of the laundry hangers (33) disposed to be spaced apart from each other in the transverse direction and in the longitudinal direction.

6. The protruding-and-bent laundry hanger drying device according to claim 2, wherein the at least two laundry hangers (33) are slidably coupled to the mounting transverse bar (32).

7. The protruding-and-bent laundry hanger drying device according to claim 1, wherein a laundry hanger protrusion (71) is formed at an end part of the laundry hangers (33) at which laundry is bent and hung.

8. The protruding-and-bent laundry hanger drying device according to claim 1, wherein a cap 72 covers an end part of the laundry hangers (33) at which laundry is bent and hung.

9. The protruding-and-bent laundry hanger drying device according to claim 1, further comprising a connection wire (73) that connects the laundry hangers (33) forming the laundry hanger transverse unit (34).

10. The protruding-and-bent laundry hanger drying device according to claim 1, further comprising a laundry hanger connection rod (74) that connects the laundry hangers (33) forming the laundry hanger transverse unit (34).

11. The protruding-and-bent laundry hanger drying device according to claim 1, further comprising a pressing elastic body (81) formed to be elastically deformable, coupled to the mounting frame (38), and located between the mounting frame (38) and the laundry hangers (33) to be configured to press and come in contact with the laundry hangers (33) in order to fix laundry hung on the laundry hangers (33).

12. The protruding-and-bent laundry hanger drying device according to claim 1, further comprising a pressing elastic body (81) formed to be elastically deformable, coupled to the laundry hangers (33), and located between the mounting frame (38) and the laundry hangers (33) to be configured to press and come in contact with the laundry hangers (33) in order to fix laundry hung on the laundry hangers (33).

13. The protruding-and-bent laundry hanger drying device according to claim 1, wherein the laundry hangers (33) are rotatably coupled to the mounting frame (38).

14. A laundry drying rack comprising:

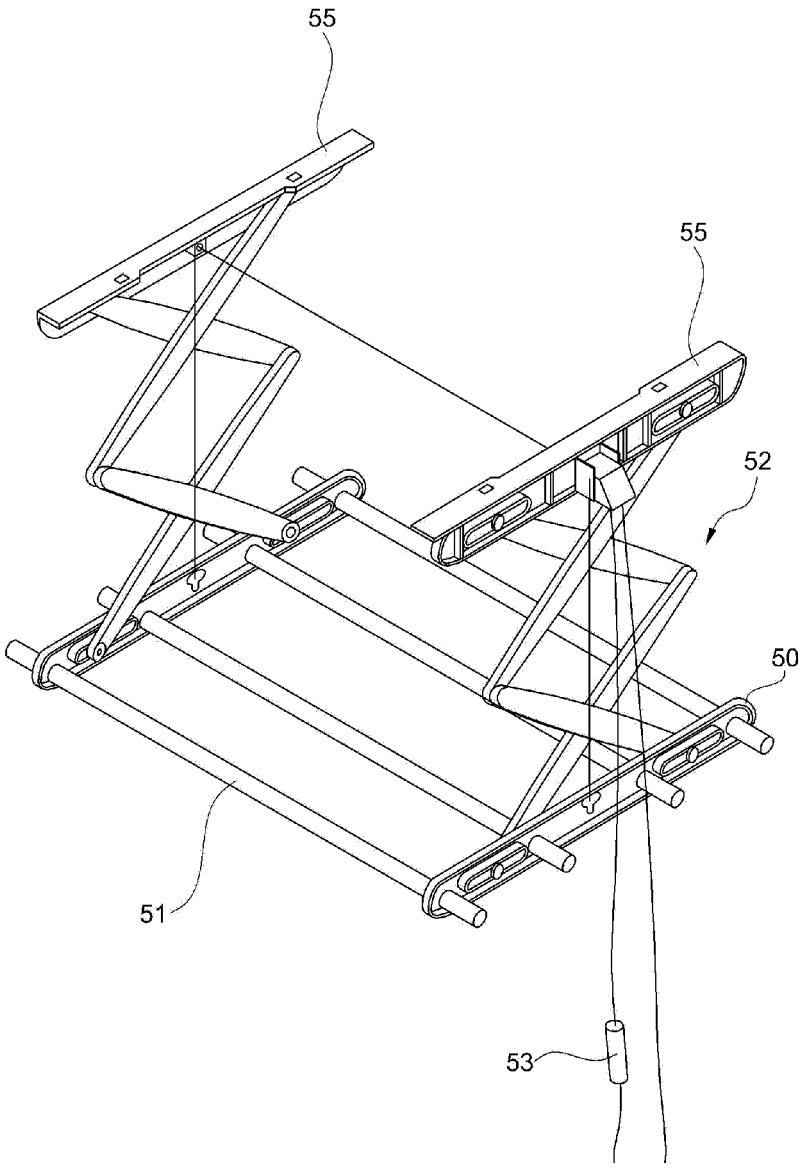
a protruding-and-bent laundry hanger drying device (30) comprising a mounting frame (38) and

a laundry hanger transverse unit (34) formed of at least two laundry hangers (33) protruding downward from the mounting frame (38) and disposed to be spaced apart from each other in a transverse direction, wherein at least two of the laundry hanger transverse units (34) are disposed to be spaced apart from each other in a longitudinal direction; and
a support meeans configured to support the protruding-and-bent laundry hanger drying device.

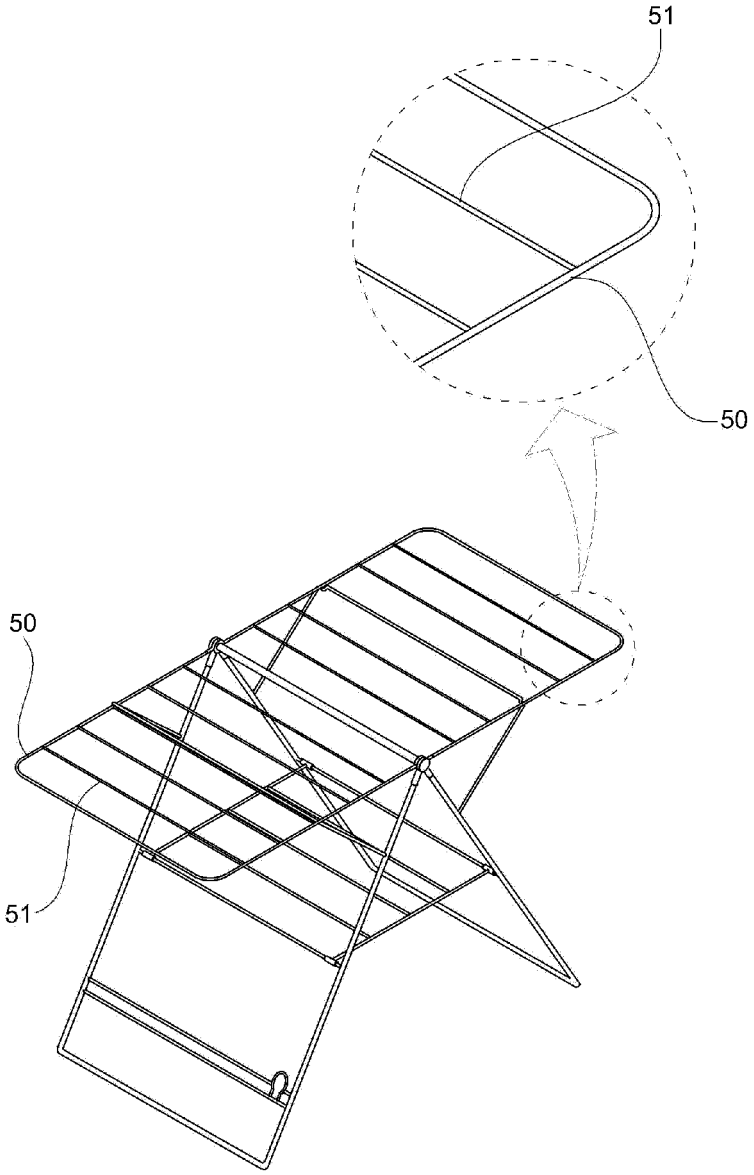
15. The laundry drying rack according to claim 14, wherein the support meeans comprises a support stand (45) to which a rotational connection part (37) is coupled, and one pair of the protruding-and-bent laundry hanger drying devices (30) is rotatably coupled to the rotational connection part (37).

16. The laundry drying rack according to claim 14, wherein the support meeans comprises a longitudinal support stand (47) fixed to an outer structure and having a rotational connection part (37) coupled thereto, and the protruding-and-bent laundry hanger drying device (30) is rotatably coupled to the rotational connection part (37).

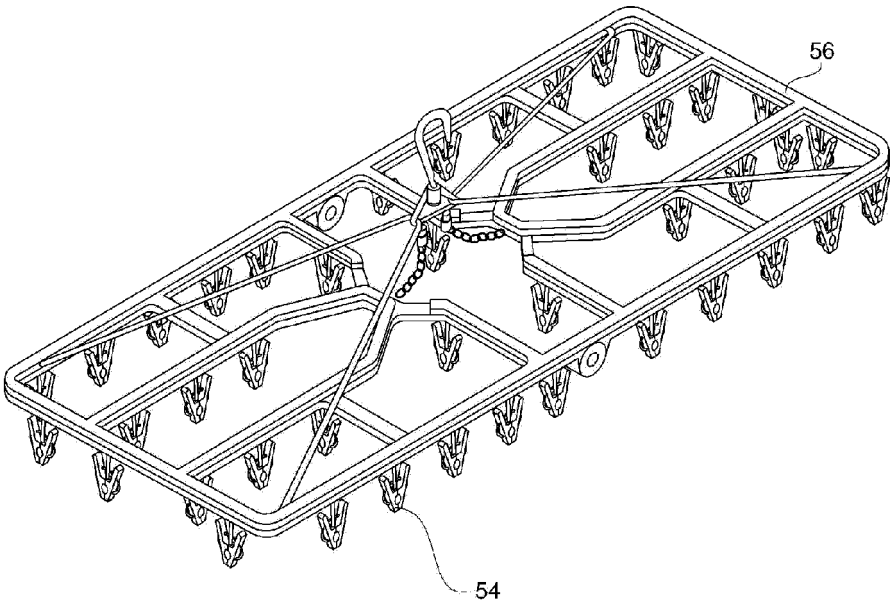
【Fig 1】



【 Fig 2】



【 Fig 3】



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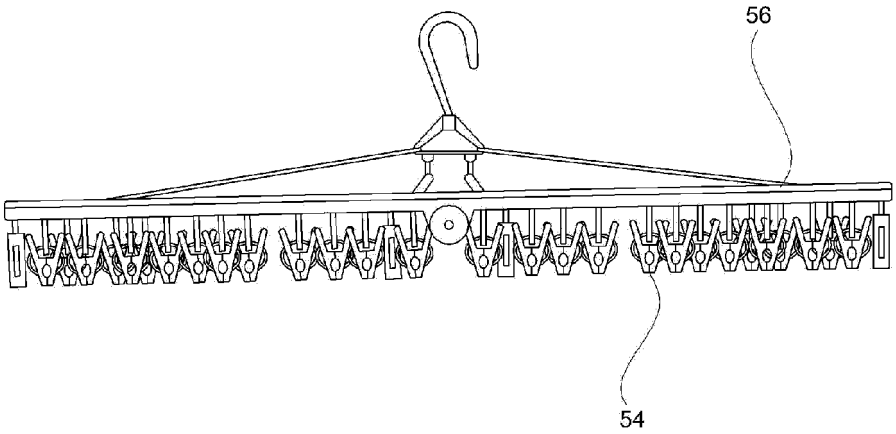
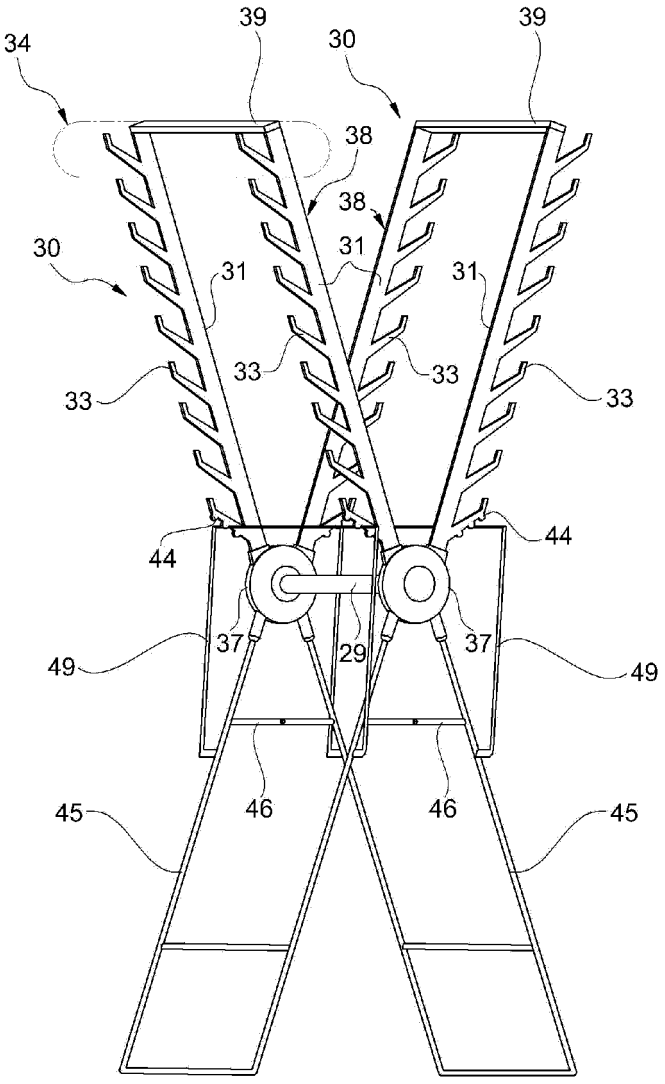


【 Fig 5】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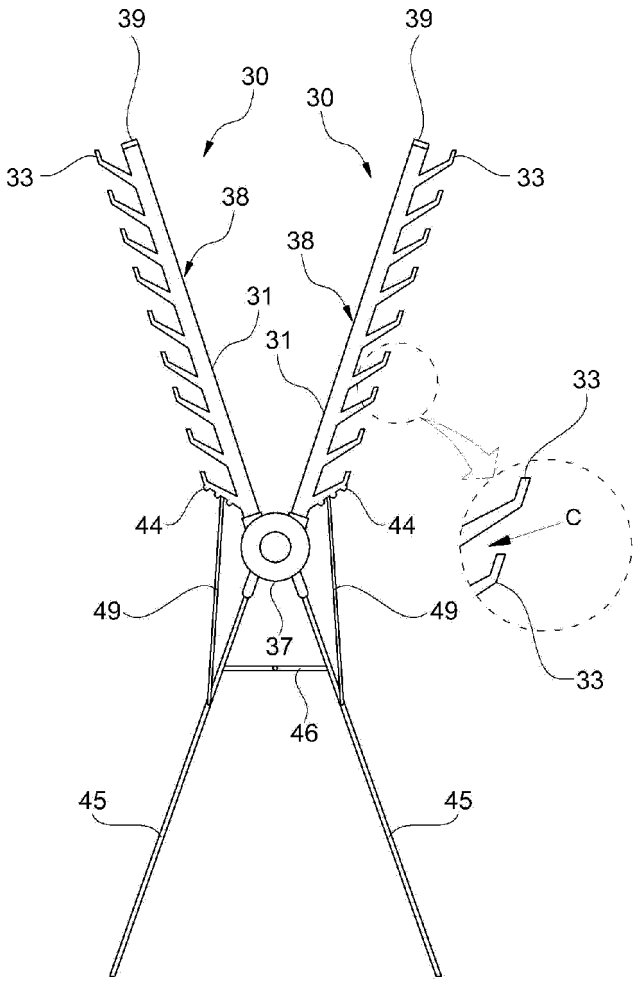
【 Fig 6】



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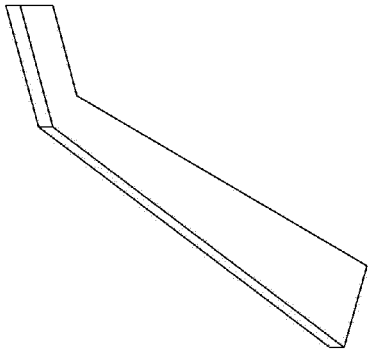

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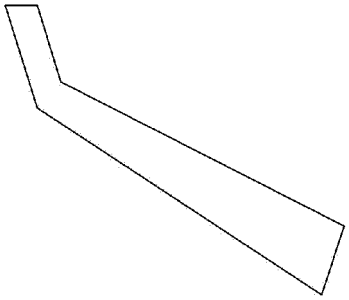

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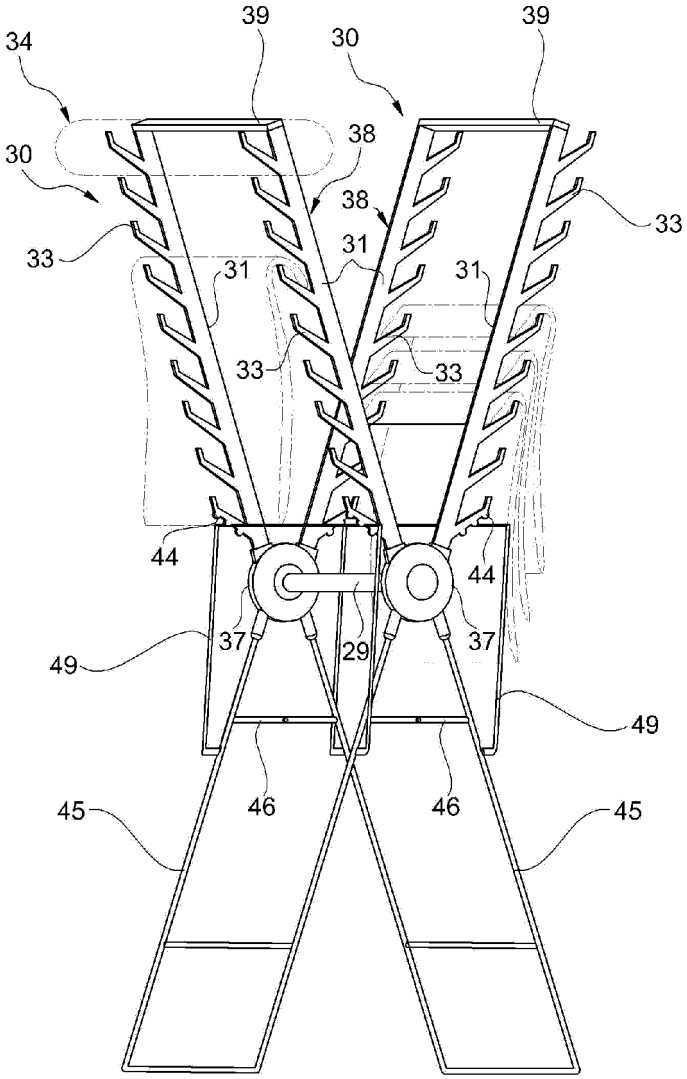
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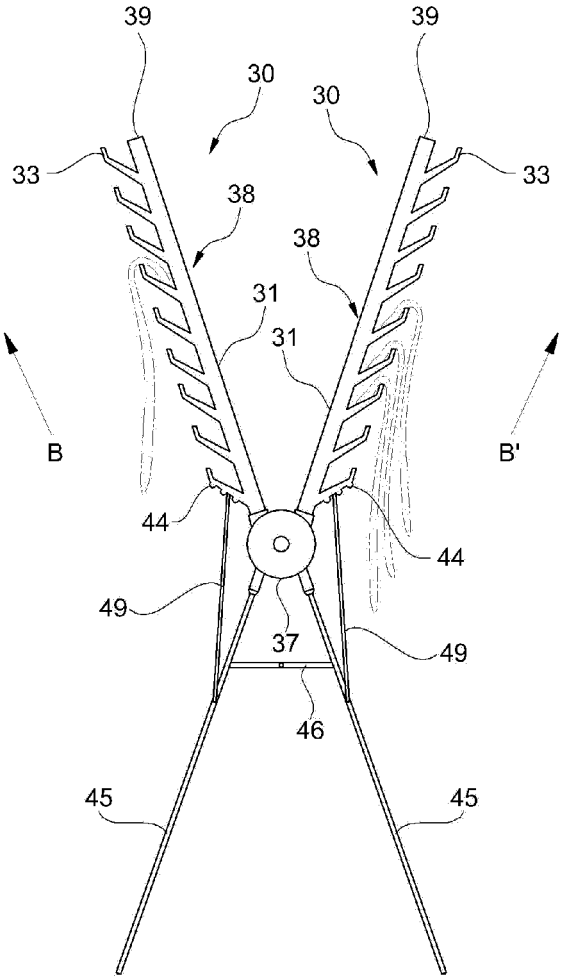
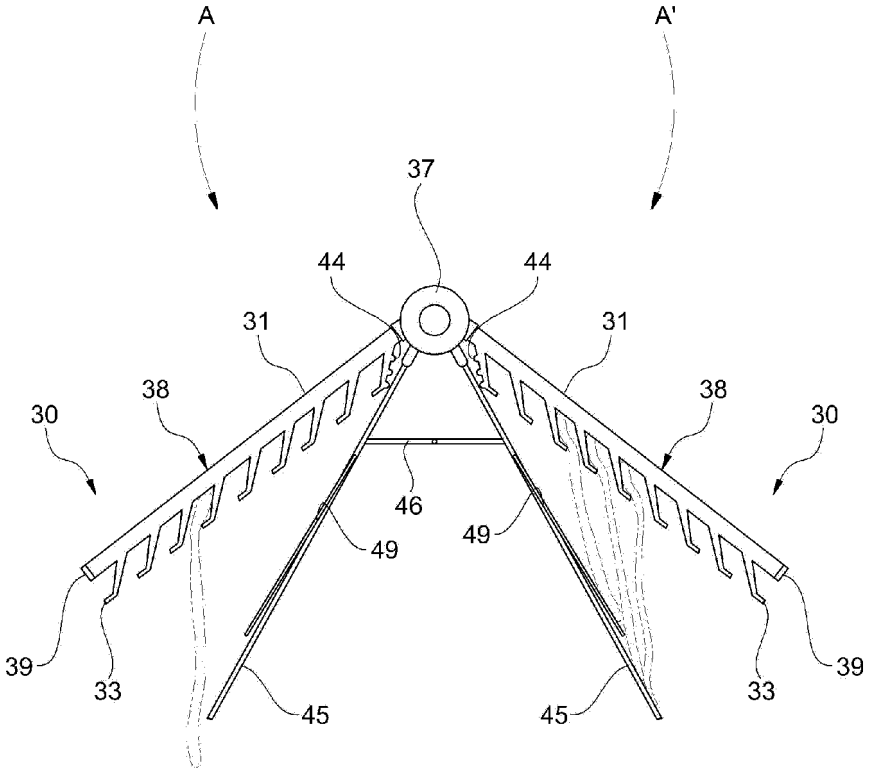
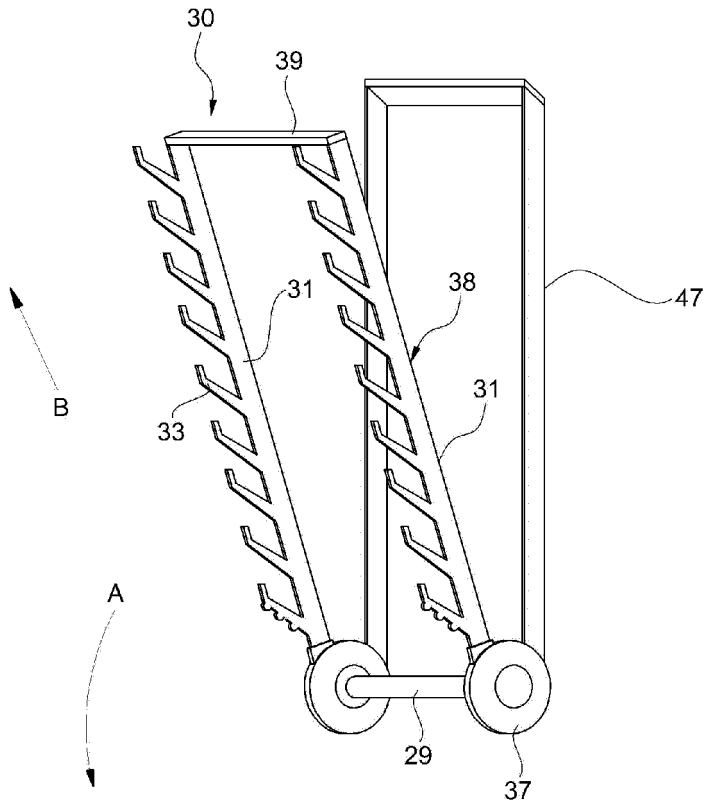
【Fig 10】



【 Fig 1 1】



【 Fig 1 2】



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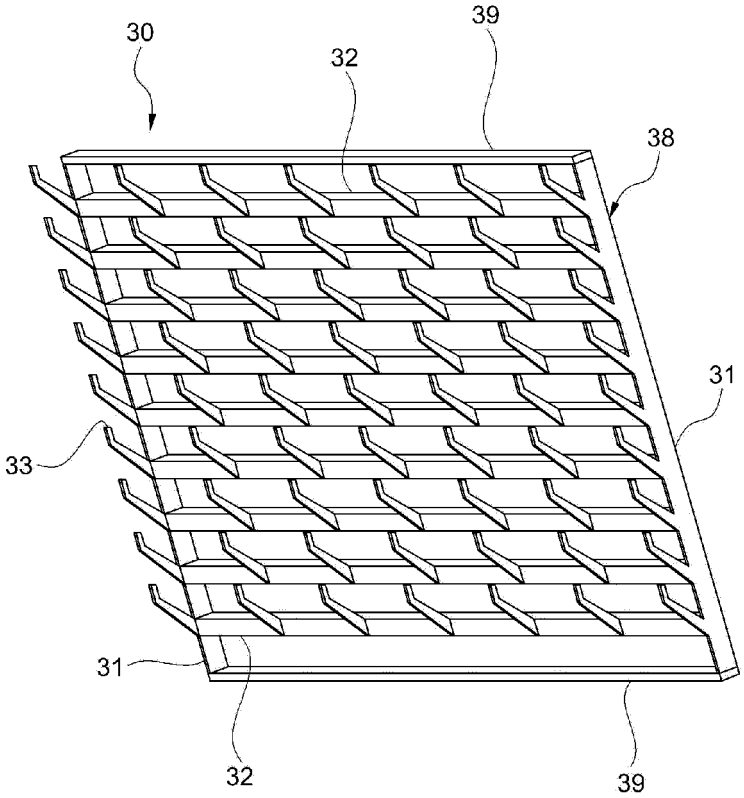

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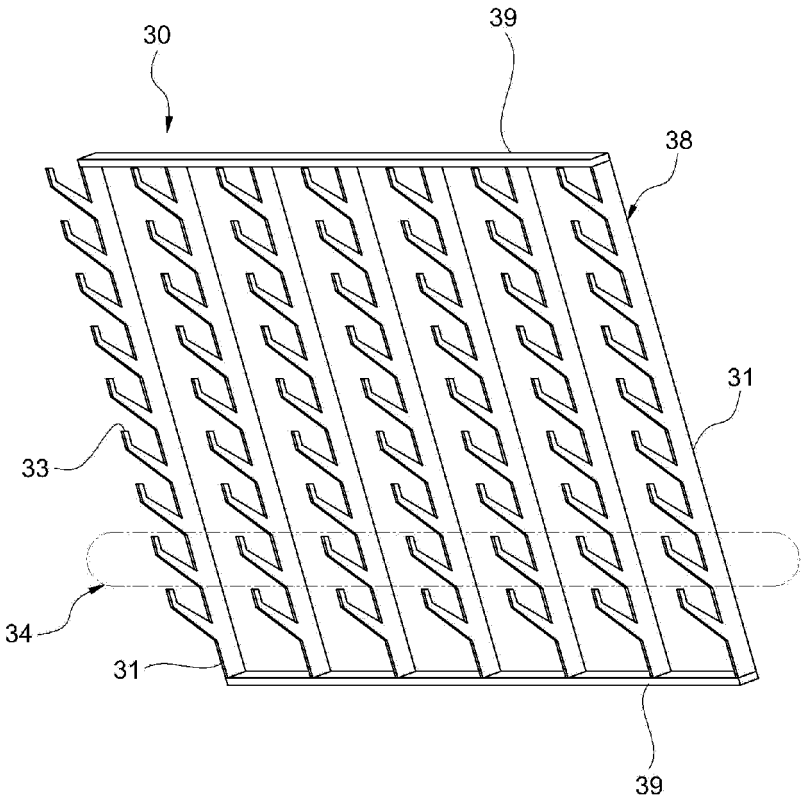

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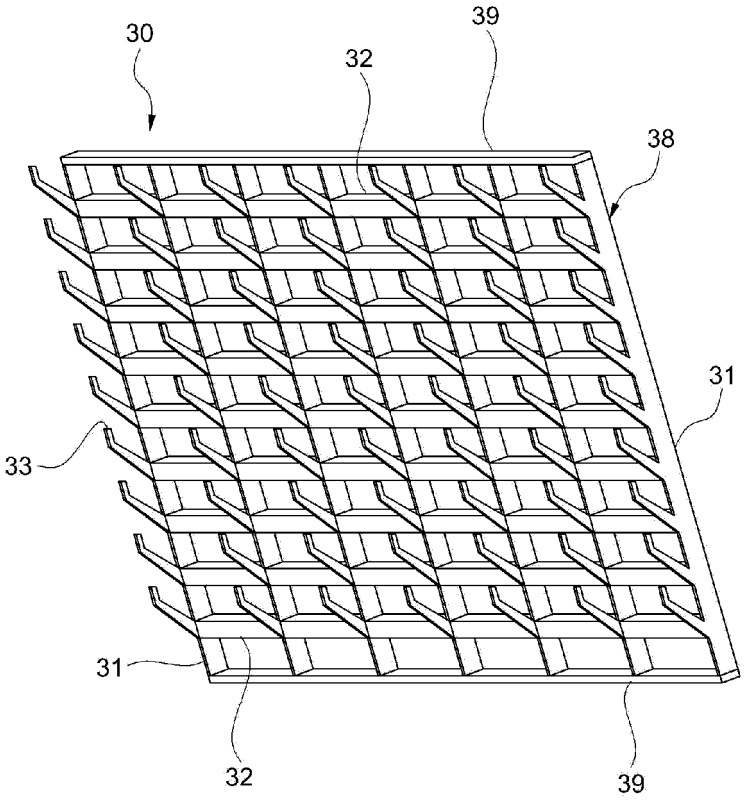
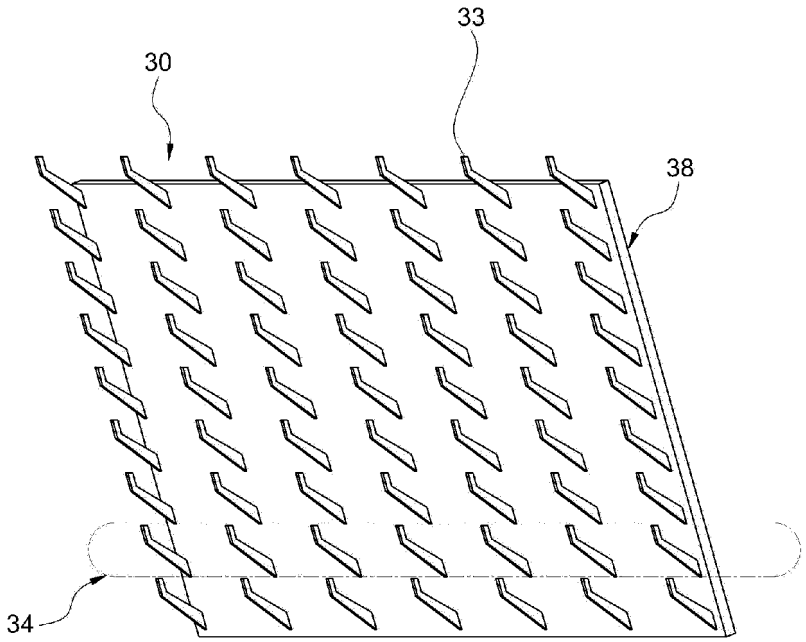


【Fig 16】



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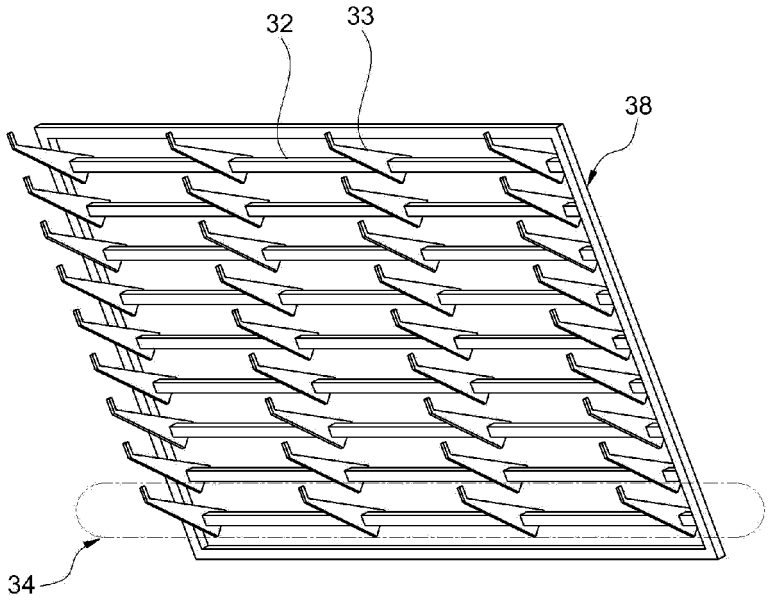

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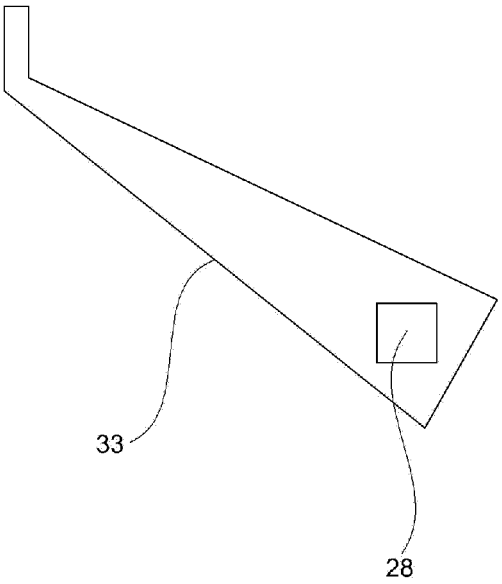

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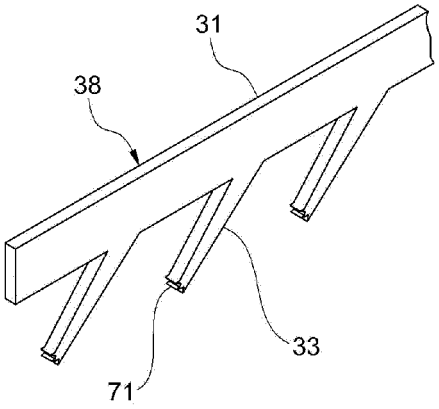
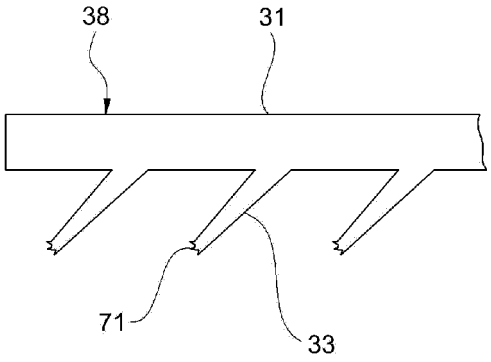
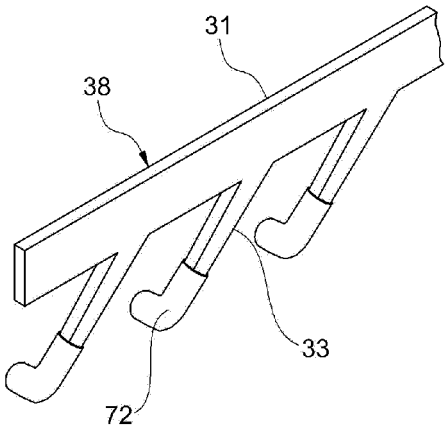


【 Fig 2 0】



【 Fig 2 1 】



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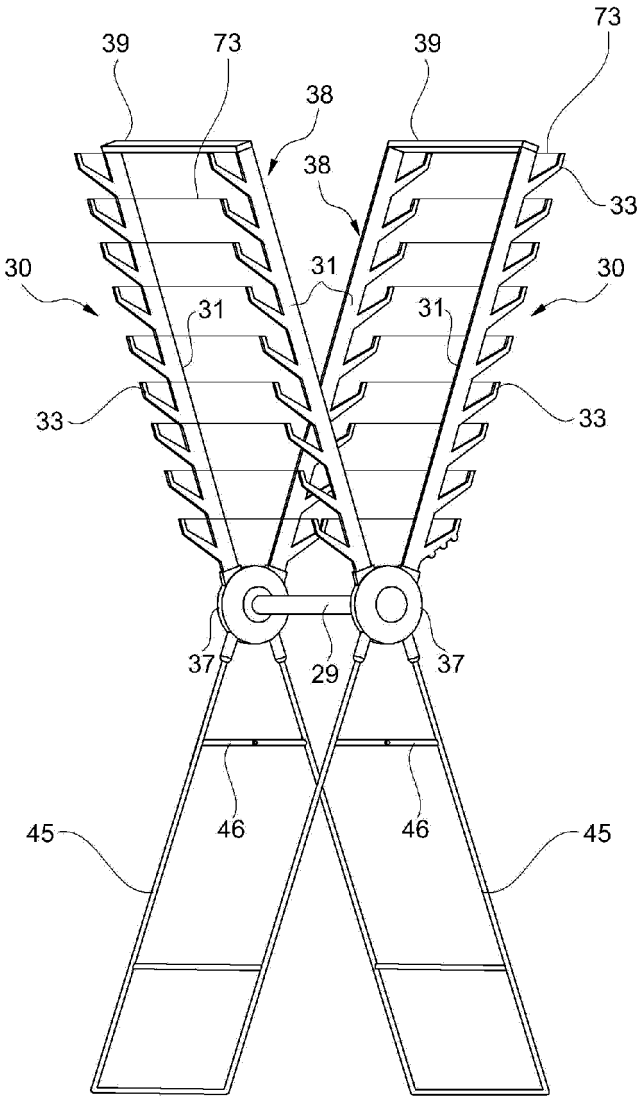

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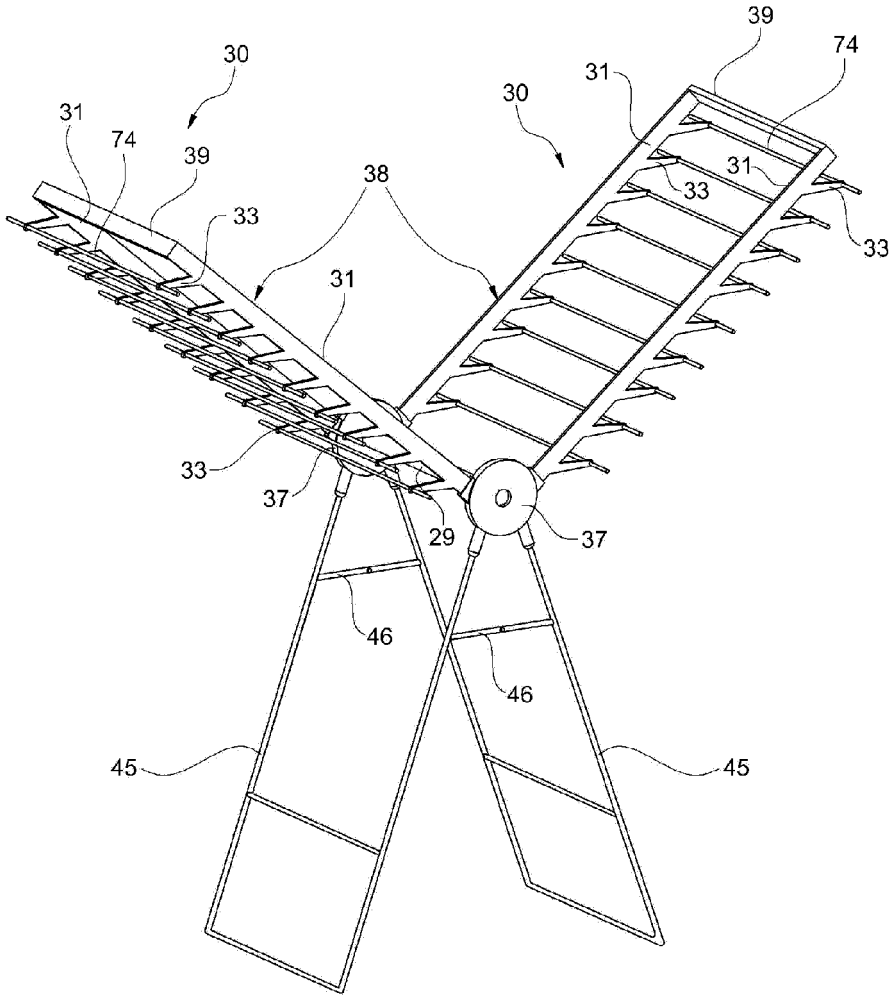

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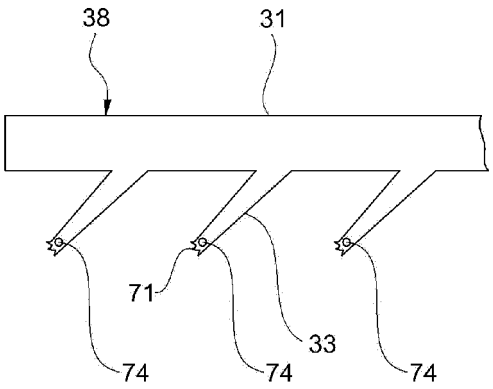

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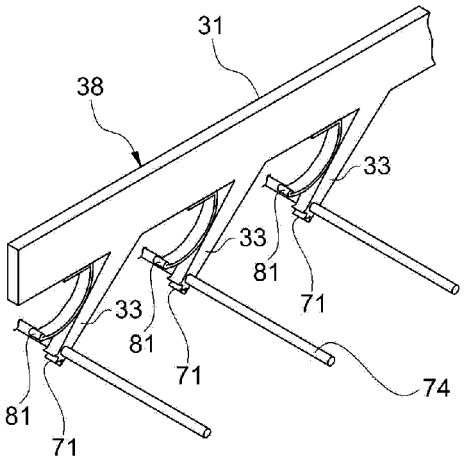

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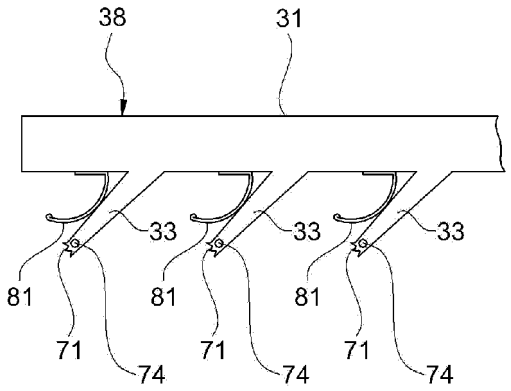

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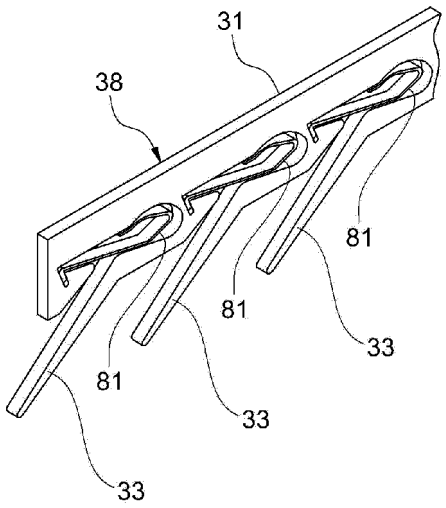

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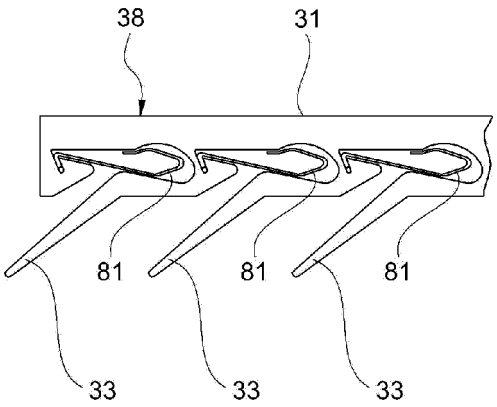
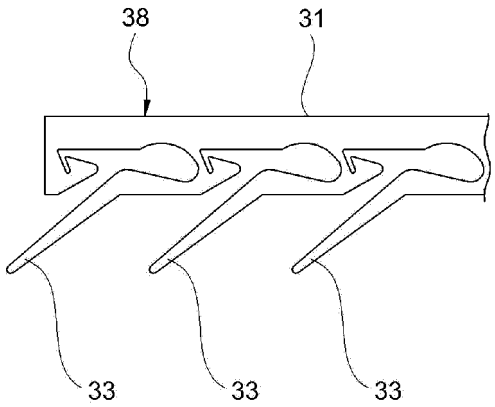


【Fig 29】



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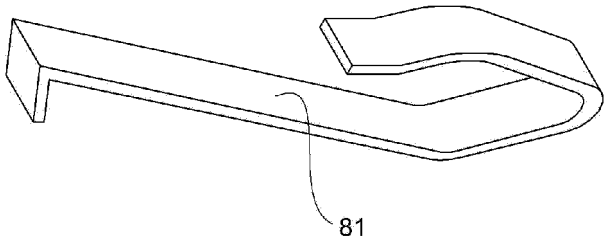
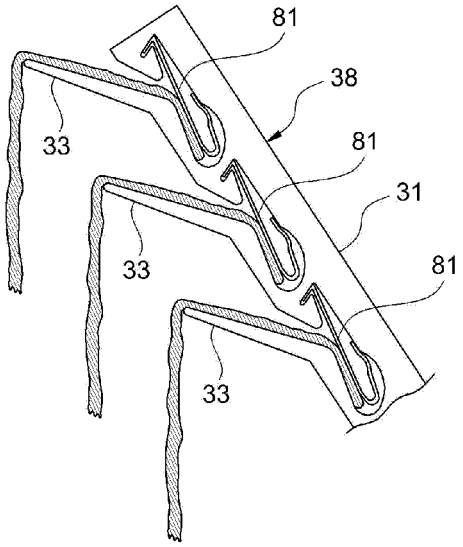


【 Fig 3 1 】



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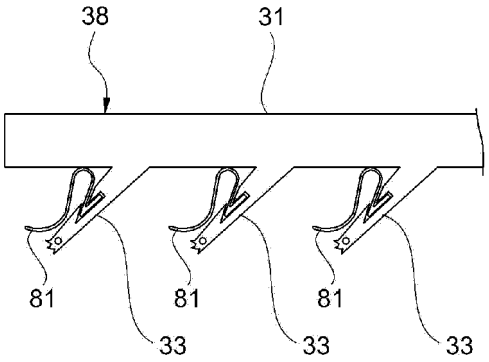

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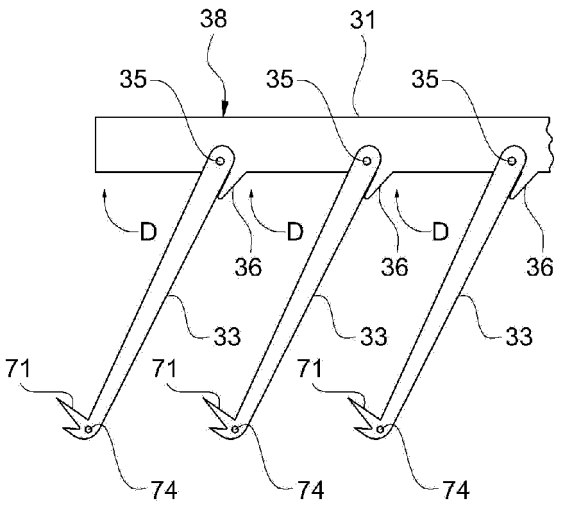

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2014/004415

A. CLASSIFICATION OF SUBJECT MATTER

D06F 57/08(2006.01)i

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

D06F 57/08; D06F 57/00; D06F 57/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean Utility models and applications for Utility models: IPC as above
Japanese Utility models and applications for Utility models: IPC as above

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

eKOMPASS (KIPO internal) & Keywords: laundry, dry

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 10-057692A (SEKISUI JUSHI CO LTD) 03 March 1998 See abstract, claim 1 and figure 1	1-16
A	KR 10-2009-0022349 A (KIM, Bok Ryeol) 04 March 2009 See claim 1 and figures 2-4	1-16
A	JP 10-080597A (EBISU KK) 31 March 1998 See claim 1 and figures 1-3	1-16

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:
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Date of the actual completion of the international search	Date of mailing of the international search report
16 JULY 2014 (16.07.2014)	**17 JULY 2014 (17.07.2014)**
Name and mailing address of the ISA/**KR** Korean Intellectual Property Office Government Complex-Daejeon, 189 Seonsa-ro, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer Telephone No.

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/KR2014/004415

Patent document cited in search report	Publication date	Patent family member	Publication date
JP 10-057692A	03/03/1998	NONE	
KR 10-2009-0022349 A	04/03/2009	NONE	
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