Claims

1. An opening and closing type shelf fixing clamp comprising:

a main body (100) fastened to wires (3) forming both side edges of a shelf (1) and to which a post is fastened;

a fixing cover (300) fastened to one side of the main body through a hinge to surround and fix a front surface of the post (5); and

a fixing lever (500) fastened to an opposite side of the main body through a hinge to press the fixing cover toward the main body so as to stably fix the shelf to the post,

wherein the fixing cover (300), which is fastened to the one side of the main body (100) through the hinge (10) to surround and fix the front side of the post (5), includes:

a body (310) formed therein with a post insertion portion (311) having a semi-circular shape to fasten the post;

a fastening block (330) formed at one side of the body, inserted into an insertion portion (151) formed at a center of the fixing block (150) of the main body (100), and rotatably fastened to the main body through the hinge;

a tight-contact groove (350) formed at an opposite side of the body, and pulled toward the main body by the fixing lever after a tight-contact protrusion formed in the fixing lever (500) is inserted into the tight-contact groove (350), thereby stably fixing the post;

a first double locking protrusion (370) formed at one side of the tight-

contact groove, fastened to a second double locking protrusion formed on the fixing lever (500), and pulled toward the main body by the fixing lever to stably fix the post; and

a pad (390) fastened to the post insertion portion to prevent the shelf from descending on the post.

2. The opening and closing type shelf fixing clamp of claim 1, wherein the main body (100), which is fastened to the wires (3) forming the both side edges of the shelf (1) and to which the post is fastened, includes:

first fixing blocks (110) formed at upper and lower portions thereof with fitting grooves (111) to which the wires of the shelf are detachably fitted, respectively;

a post insertion portion (130), which has a semi-circular shape such that the post is fastened to the post insertion portion (130) between the first fixing blocks (110) from a front of the post insertion portion (130);

second fixing blocks (150) formed at both ends of the post insertion portion and fastened to the fixing cover (300) and the fixing lever (500) in a hinge type; and

a pad (170) fastened to the post insertion portion of the main body to prevent the shelf from descending on the post.

3. The opening and closing type shelf fixing clamp of claim 1, wherein a fitting groove (111) is formed on a front thereof with a wire fixing protrusion (113) to prevent the wire from being separated even when the post is not fitted,

thereby enabling a user to conveniently adjust a position of the shelf; and the first fixing block (110) is formed at a center thereof with an insertion portion (115) into which a part of the post is inserted to come into tight contact with the wire of the shelf fastened to the fitting groove, thereby preventing the wire from being separated from the fitting groove.

4. The opening and closing type shelf fixing clamp of claim 1, wherein the fixing lever (500), which is fastened to the opposite side of the main body through the hinge and presses the fixing cover (300) toward the main body to stably fix the shelf (1) to the post (5), includes:

a fastening block (530) formed at one side of a body (510), inserted into an insertion portion (151) formed at a center of a second fixing block (150) of the main body (100), and rotatably fastened to the main body through the hinge;

a tight-contact protrusion (550) formed in one side of an insertion groove and inserted into the tight-contact groove (350) formed in the fixing cover (300) to enable the fixing cover to come into tight contact to the main body, thereby stably fixing the post and stably fixing the fixing cover (300) to the main body (100); and

a second double locking protrusion (570) formed in the body, fastened to a first double locking protrusion (370) formed in the fixing cover (300), and pulled toward the main body by the fixing lever to stably fix the post and stably fasten the fixing cover (300) to the main body (100) so that the fixing cover is prevented from being easily released by external force, thereby serving as a double locking.