

Patch Cord Arrangement Set

Technical Field

This invention involves a daily used item, to be more specific, it is a patch cord arrangement set.

Background Art

In daily life, a place is often needed to connect many electrical appliances (e.g. computers, printers, etc.), and the power jacks reserved on the wall are always unable to meet the needs, and the reserved positions of the power jacks are often unsuitable. Therefore, the patch board which has many power jacks and longer patch cords is often used to solve the problem of connecting many electrical appliances at the same time. As the patch board needs to be placed at a certain location, and the patch cords on the plugs connected on to the patch board are often too long, and the following circumstances will often appear with the use of the patch board: the patch board which is connected on to the power jacks is placed on the table or on the floor, there are many plugs connected onto the patch board, the many plugs are connected to many electrical appliances through the patch cords, the patch cords on the patch board spread on the patch board or around it in a mess, and is covered with dust.

The circumstances of the use of patch board stated above will cause the following problems: 1) the patch board which is placed on the floor or on the table and the messy patch cords connected on to it will take up a certain area, when cleaning up, the part will be difficult to be cleaned, and the moving of the patch board or patch cords often may affect the electrical appliances which they connect, the impact which may be brought about by the difficulty in cleaning and by the moving, cause the user to often not clean the area where the patch board is, so that on the patch board and the area around it are often covered with dust, and is very dirty and messy; not only will it look bad, and affect the cleanliness of the environment, the dirty and messy condition also affect the service life and the stability of connection of the patch board and the plugs connected onto it. 2)

As the patch board and the patch cords are exposed to the outside, people often will accidentally touch them, especially the patch board and patch cords placed on the floor under the computer table, they will often get kicked by people who are using computers, and thus cause the connection to be bad, and affect the use of the electrical appliances connected on to it, which if serious, may even cause damage to the electrical appliances.

3) The many patch cords on the patch board, which are scattered in a mess, crisscross with one another, after being used for a long time and the circuit ages, may cause conditions like short circuit and bad contact, etc., and the patch board and the patch cords exposed to the outside will often also be affected by some conditions of the environment, such as objects which drop, water flowing out when a glass of water is knocked off accidentally and so on, these may also cause conditions like poor contact of the circuit, short circuit, etc. to occur, and not only will normal use be affected, hidden dangers also exist.

Therefore, there is a need to offer a type of patch cord arrangement set to solve the problems stated above that exist in the patch board and patch cords.

Invention Content

The technical issue which this invention wants to solve, is to offer a type of patch cord arrangement set, which can protect the patch board effectively, and arrange the length of the patch cords connected onto it, so as to prevent problems such as difficulty in cleaning caused by the patch board and the messy patch cords, the presence of hidden dangers, etc.

The technical issues stated above can be solved by the use of the technical protocol as follows: a type of patch cord arrangement set, the set includes a casing, and inside the casing is a containing space for putting patch board, there are wire winding devices set up inside the casing for winding patch cords, mounted on the casing are threading grooves for patch cords to pass through.

In this invention, hanging components can be set up outside the casing stated; the casing can be hung on the wall or below the table by the hanging components.

There can be a setup of many of the hanging components in this invention, to form a firm hanging support to the casing. The hanging components can be rotating hooks or fixed hooks.

In this invention, the casing stated may include the door part which can be opened and shut, so that when there is a need to place the patch board or adjust the connecting position and patch cords, open the door part, it is easy to operate; and after completing the operation, shut the door part, so as to protect the patch board and the patch cords inside the casing, not only will it be more difficult to collect dust, it is clean and hygienic, and it will not be adversely affected by the environment, so that the safety is improved.

In this invention, there can be a setup of two or more of the threading grooves stated, and can be spread out at different directions of the casing, to thread the patch cords out in different directions, so as to connect electrical appliances in different directions.

In this invention, the threading grooves stated may be open slots with openings on the side, so that the patch cords can conveniently enter into the open slots from the openings, it will be more convenient and fast to operate. And, because the patch cords can enter into the open slots from where the openings are, the plugs connected on the patch cords do not need to go through the threading grooves, so that the threading grooves can be made smaller.

In this invention, there can be a setup of two or more of the wire winding devices stated, so that the patch cords connected on the patch board can separately wind on separate wire winding devices, so as to prevent the patch cords from being in a mess and crisscrossing with one another.

In this invention, as an option for example, the wire winding devices stated can be made up of a pair of wire winding hooks fixed inside the casing, so that patch cords which are too long can be wound between a pair of wire winding hooks, and prevent the patch cords from being in a mess.

In this invention, as another option for example, the wire winding devices stated can also be made up of wire winding wheels fixed inside the casing, so that patch cords

which are too long can wind on the wire winding wheels, and prevent the patch cords from being in a mess.

By using the abovementioned structure of this invention, the effect of this invention is prominent: as the patch cord arrangement set of this invention has a containing space for putting patch board in the casing, there are wire winding devices set up inside the casing, mounted on the casing are threading grooves, the user can put the patch board inside the casing, extra patch cords can be wound on the wire winding devices, and the patch cords can connect for the electrical appliances outside the casing through the threading grooves. In this way cleaning will not be affected by the patch board and the messy patch cords, especially after hanging up the casing by the hanging components, not only will it be more difficult to collect dust, it will also not be adversely affected by the environment, it is more hygienic and safe, the service life is lengthened; and, extra patch cords are wound on the wire winding devices, this has prevented the patch cords from being in a mess and crisscrossing with one another, it also further improved the safety of use.

Explanation of Figures

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| Figure 1 | A structural sketch of the cord arrangement set of this invention; |
| Figure 2 | The sketch of the use of the cord arrangement set in Figure 1 of this invention; |
| Figure 3 | The structural sketch of the cord arrangement set of this invention with door part installed; |
| Figure 4 | The sketch that shows the door part of the cord arrangement set of this invention being shut when used; |
| Figure 5 | Another structural sketch of the cord arrangement set of this invention; |
| Figure 6 | The sketch of the use of another structure of the cord arrangement set of this invention. |

Specific Way of Implementation

As shown in Figures 1-6, the cord arrangement set of this invention include casing 1, there is a containing space 10 in casing 1 where patch board can be put into, there are wire winding devices 11 inside the casing for winding patch cords, on casing 1 there are threading grooves 12 for patch cords 5 to pass through. When using, as shown in Figure 2 and Figure 4, the patch board 2 can be put into the containing space 10 of casing 1, then connect the plug 3 needed on to patch board 2, the patch cords 5 on the patch board 2 pass through casing 1 through threading grooves 12 and connect electrical plug 21 on to the outlet 4, at the same time the various patch cords 5 linked to plug 3 which is connected on patch board 2 also pass through casing 1 through threading grooves 12 and connect on to the electrical appliances, the extra patch cords which are too long can wind on to the wire winding devices 11, so as to arrange the patch board 2 and the messy patch cords 5 within the containing space 10 of casing 1. In this way, not only will it be difficult for the patch board 2 and patch cords 5 which are protected in casing 1 to collect dust, and they will also not be adversely affected by the environment, it is more hygienic and safe, the service life is lengthened; cleaning will also not be affected by the patch board and the messy patch cords, it will be easier to clean up; also, as the extra patch cords 5 can be wound on to wire winding devices 11, it prevents the patch cords 5 to be messy and crisscrossing with one another, this further improved the safety of use.

In this invention, as shown in Figures 1-6, there can be a setup of the hanging components 13 on top of the outside of the casing stated, the casing 1 can be hung on the wall or under the table by the hanging components 13, so as to make the patch board 2 and patch cords 5 be above the floor or table, not only does it save the space, it is also convenient to keep the surface of the floor or table clean and hygienic. There can be a setup of many of the hanging components 13 in this invention, to form a firm hanging support to the casing. The hanging components 13 can be rotating hook 131 or fixed hook 132, or other hanging structures, so long as the casing 1 can be hung up, no restriction is needed for its specific structure.

In this invention, as shown in Figure 3 and Figure 4, the casing 1 stated can include the door part 14 which can be opened and shut, so as when there is a need to put

patch board 2 or arrange connection position and patch cords 5, open up the door part 14, it is easy to operate; and after operation, shut the door part 14, so as to protect the patch board 2 and patch cords 5 inside the casing 1, not only is it difficult to collect dust, it is clean and hygienic, and will not be adversely affected by the environment, the safety is improved.

In this invention, as shown in Figures 1-6, there can be a setup of two or more than two of the threading groove 12, the specific number to set up can depend on the jacks on patch board 2, so as to let the patch cords 5 that link each plug 3 connected on to the jack to be able to pass through casing 1 through each separate threading groove 12, so as to prevent the patch cords to crisscross horizontally. According to the different directions of placement of the electrical appliances that patch cords 5 need to connect, the various threading grooves 12 can spread out in different directions of casing 1, to thread the patch cords 5 out at various different directions, so as to connect on to the electrical appliances in different directions.

In this invention, as shown in Figures 1-2 and Figures 5-6, the threading grooves 12 stated can be open slots with openings at the side; so that the patch cords 5 can conveniently enter the open slots from the openings, operation will be more convenient and fast. And, as the patch cords 5 can enter the open slots from the openings, the plugs connected on the patch cords 5 do not need to pass through threading grooves 12, so that the size of threading grooves 12 can be made smaller.

In this invention, as shown in Figures 1-2 and Figures 5-6, there can be a setup of two or more of the wire winding devices 11 stated, so that the many patch cords 5 on the patch board 2 can separately wind on separate wire winding devices 11, so as to prevent the patch cords 5 from crisscrossing and be in a mess. And as shown in Figure 5 and Figure 6, the various wire winding devices 11 can be set up on different positions inside casing 1, so as to make it convenient for patch cords 5 on the patch board 2 to wind on to the nearest winding device 11.

As in Figures 1-2, as an option for example, the wire winding devices 11 stated can be made up of a pair of wire winding hooks 111 and 112 inside casing 1, patch cords

5 that are too long can be wound in between a pair of wire winding hooks 111 and 112, so as to prevent the patch cords from being messy.

As shown in Figure 5 and Figure 6, as another option for example, the wire winding device 11 can also be made up of wire winding wheel 113 inside casing 1, patch cords 5 that are too long can wind on the wire winding 113 as shown in Figure 6, so as to prevent the patch cords from being messy.

The wire winding devices 11 in this invention is not limited to the two types of structure stated above, any other structure that can wind and arrange the patch cords 5 can also be used, so long as it can let the patch cords 5 wind on to it, the structures will not be stated in details one by one here.

The implementation examples stated above are few types of better ways of implementation of this invention; they are only used for illustrating this invention, and not for restricting this invention.

Claims

1. It is a patch cord arrangement set, its feature is that it includes a casing, and inside the casing is a containing space for putting patch board, there are wire winding devices set up inside the casing for winding patch cords, on the casing are threading grooves for patch cords to pass through.
2. As the patch cord arrangement set stated in claim 1, its feature is that there are hanging components set up on top of the outside of the casing.
3. As the patch cord arrangement set stated in claim 2, its feature is that there is a setup of many of the hanging components stated.
4. As the patch cord arrangement set stated in claims 2 or 3, its feature is that the hanging components stated are either rotating hooks or fixed hooks.
5. As the patch cord arrangement set stated in claim 1, its feature is that the casing stated includes a door part which can be opened and shut.
6. As the patch cord arrangement set stated in claim 1, its feature is that there is a setup of two or more of the threading grooves stated.
7. As the patch cord arrangement set stated in claims 1 or 6, its feature is that the threading grooves stated are open slots with openings on the side.
8. As the patch cord arrangement set stated in claim 1, its feature is that there is a setup of two or more of the wire winding devices stated.
9. As the patch cord arrangement set stated in claims 1 or 8, its feature is that the wire winding device stated is made up of a pair of threading hooks fixed inside the casing.
10. As the patch cord arrangement set stated in claims 1 or 8, its feature is that the wire winding devices are made up of wire winding wheels fixed inside the casing.