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SAFETY PLUG BLOCK

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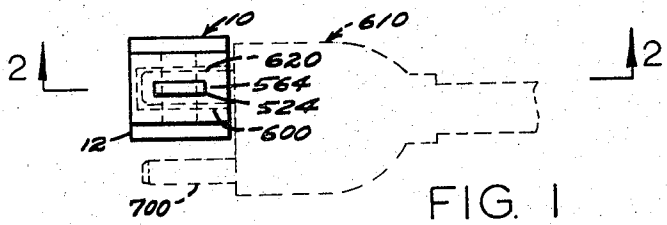


FIG. 1

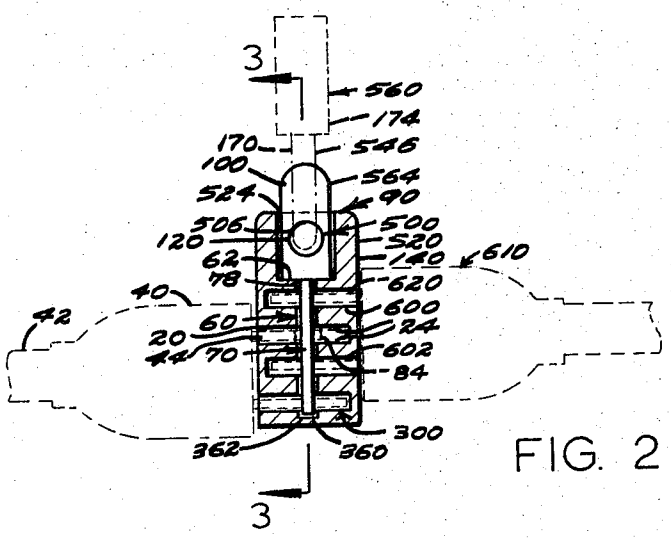


FIG. 2

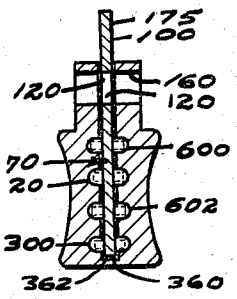


FIG. 3

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SAFETY PLUG BLOCK

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Continuation-in-part of application Ser. No. 530,443, Feb. 28, 1966. This application Aug. 1, 1966, Ser. No. 569,466

U.S. Cl. 339—37 2 Claims

Int. Cl. H01r *13/44*; E05b *65/00*; E05b *65/32*

ABSTRACT OF THE DISCLOSURE

A plug block having prong recess means entering the plug block from each of two opposite sides whereby two electrical plugs disposed on opposite sides of the plug block can have their prong means locked by the plug block simultaneously.

This application is a continuation-in-part of the applicant's co-pending patent application Ser. No. 530,443, filed Feb. 28, 1966, titled, Plug Block.

The following drawings show only one example of a way in which the principles of the plug block of this invention can be used and it is understood that these principles can be used in a product considerably changed from the example shown, all within the spirit of the invention as hereinafter claimed.

In the drawings:

FIGURE 1 is a top plan view of an electrical plug block of this invention shown as applied to two of the prongs of a three-pronged plug, the latter being shown in dotted lines.

FIGURE 2 is a sectional view taken along the line 2—2 of FIGURE 1.

FIGURE 3 is a sectional view taken along the line 3—3 of FIGURE 2.

The plug block of this invention is generally indicated at **10** in FIGURE 1 and has a body **12** having a first prong recess **20** in a forward side **30** of the body, the recess **20** being of a size for receiving the apertured prong **34** of the plug **40** of an electrical cord **42**, as seen in dotted lines.

The first prong recess **20** is elongated in depth having side walls **24** presenting an effective prong-receiving space **44**, which latter, as viewed from the outside of the prong recess **20**, looks substantially like the recess **20** appears in FIGURE 4 since it happens to be of a uniform cross-section throughout the majority of its length.

The prong-receiving space **44**, as viewed from the outside of the prong recess **20**, is defined by those portions of the prong recess **20** which are in alignment with the outermost end **56** of the recess **20** whereby the space **44** defines substantially that area of the recess **20** which can be actually occupied by a straight prong.

The body **12** has a retainer opening **60** extending through another side **62** of the body **12**, the said other side preferably being the top side as seen in FIGURE 2 and the retainer opening **60** being in alignment with the prong recess **20** as viewed in any vertical cross-section extending through the recess **20**, such as the cross-section shown in FIGURE 2.

The retainer opening **60** extends transversely to the prong recess **20** and preferably at a right angle or normally thereto.

An elongated retainer **70** is disposed in the retainer opening **60** and extends into the prong recess **20** beyond that portion of the prong space **44**, above defined, which is farthest from the entrance **78** of the retainer opening, whereby when the retainer **70** extends through the prong opening **84** of the prong **34**, the retainer **70** will retain the prong **34** in the block **12**.

Releasable preventing means **90** is provided for preventing the removal of the retainer **70** from its prong-retaining position.

Such preventing means can have many forms; an example of one form is shown in FIGURE 2 in which the preventing means **90** involves providing the retainer with preferably integrally attached prong retainer handle **100** to which the outer end of the prong retainer **70** is attached.

The prong retainer handle **100** preferably has a lock-hasp receiving opening **120** extending horizontally therethrough normally to the elongated retainer **70**.

The body **12** has a prong handle jacket **140** projecting therefrom and attached thereto in a position for extending around the handle **100** beyond the hasp opening **120** at times when the retainer **70** is in its prong retaining position.

The jacket **140** has a hasp aperture **160** extending horizontally therethrough for receiving the hasp **170** of a padlock **174**, the hasp aperture **160** being disposed in alignment with the opening **120** in the handle **100** so the padlock hasp **170** can be passed through both to lock the handle **100** to the body **12** sufficiently to hold the retainer **70** in a retaining position with respect to the prong opening **20**.

As would be best seen in FIGURE 2, the releasable preventing means **90** comprises a lock means **174** and the releasable preventing means **90** is so constructed that when the lock means **174** is unlocked and removed, and the retainer opening is disposed with its entrance downward, and since the wall surfaces of any prong aperture **20** do not bind excessively against the prong means **34** received therein, then the retainer **70** will fall out of its retainer opening for convenient removal therefrom, or can be removed by gripping an upper part **175** of the handle **100** which protrudes beyond the jacket **140**.

As best seen in FIGURE 2 and also in FIGURE 4, the retainer opening **60** has an entrance **210** larger than the retainer **70** for ease of insertion thereof.

As best seen in FIGURE 2, the body **12** further has a second and like prong recess **300** which is like the recess **20** and is disposed alongside and preferably parallel to the recess **20**, the retainer opening **60** extending through the body **12** to the second prong recess **300** and extending into the second prong recess **300** a distance such that the innermost end of the retainer **70** extends at least as far across the second recess **300** as above described as necessary for retaining the prong **34** in the prong recess **20**.

Preferably the retainer opening **60** has lowermost end **360** forming a socket **362** in the body **12** entering from the second prong recess **300** for receiving the lowermost end **360** of the retainer **70** such that it extends into the recess **362** so that the retainer **70** tends to be supported by the walls of the socket **362** to further brace the retainer **70** to prevent the removal of the prong **34** and prong **434**.

A releasable preventing means generally indicated at **500** is provided for preventing the removal of the retainer **70** from the retainer opening **60**. The releasable preventing means **500** has as one of its parts the provision of an enlarged upper end **502**. forming the outer end of the retainer **70** and the upper end **502** has a lock hole **506** therethrough. The releasable preventing means **500** further has as a part an annular jacket **520** protruding upwardly from and attached to and forming an integral part of the body **12**, the jacket **520** having a jacket opening **524** which opens upwardly and which is larger than the retainer opening **60** for receiving the larger upper end **502**.

The jacket **520** has a lock hasp aperture **540** therethrough in alignment with the lock hole **506** so that the

hasp **546** of a padlock **560** can be inserted through the hole **506** and aperture **540** for locking the retainer in the body **12**. The enlarged portion **502** of the retainer has an outward protruding portion **564** which extends outwardly from the jacket **520** sufficiently for serving as a handle to be gripped by the fingers for convenient insertion and removal of the retainer **70**.

As best seen in FIGURE 2, the second prong recess **300** forms a mate to the first mentioned prong recess **20**, both mated recesses entering from the same side of the body **12**.

Further, in accordance with this invention, a second pair of mated recesses **60** and **602** are provided which enter the body on the opposite side from the side of the entry of the recesses **20** and **300**. The second pair of mated recesses **600** and **602** serve to receive the prongs of a second plug **610**, as seen in dotted lines in FIGURE 2.

The mated prong recesses **600** and **602** are staggered with and alternated with the prongs **20** and **300** for conserving space and size.

Instead of the plug **610**, an adapter, not shown, but normally used with the plug **40** could be put in place of the plug **610** to be locked together therewith to avoid loss.

As thus described, it is believed that this invention has provided a more economical safety plug block which is efficient in its operation and which fulfills the objectives above set forth.

I claim:

1. A plug block having a body, a prong recess in a side of said body of a size for receiving the apertured prong of the plug of an electrical cord, said prong recess being elongated in depth and having side walls defining an effective prong receiving space, which space as viewed from the outside of said prong recess is defined by those portions of said prong receiving recess which are substantially in straight alignment with the outermost end of said prong-receiving recess whereby said space defines substantially that area of said recess which can be actually occupied by a substantially straight prong, said body having a retainer opening extending through another side

of said body, said retainer opening being in alignment with said prong-receiving space in said prong recess and extending transversely to said prong recess, an elongated retainer disposed in said retainer opening and extending into said prong recess a substantial distance beyond that portion of said prong space which is nearest to the entrance of said retainer opening whereby when said retainer extends through the prong opening it retains said prong in said block, and releasable preventing means for preventing the removal of said retainer from its said prong retaining position, said body having another prong recess entering said body from an opposite side thereof from the said first-mentioned prong recess, said second-mentioned prong recess having the same defined relationship with respect to said retainer as said first-mentioned prong recess.

2. The combination of claim **1** in which said first-mentioned prong recess has a mate entering said body from the same side as said first-mentioned prong recess for receiving the other prong of a plug, and further in which said prong recess also has a mate spaced therefrom and entering said body on the opposite side of said other prong recess for receiving the other prong of another plug.

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U.S. Cl. X.R.

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