June 12, 1956 J. SCHMIER 2,750,571

CONNECTOR

Filed May 13, 1952

Fig. 1

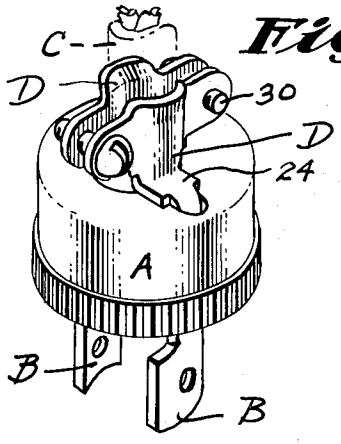


Fig. 2

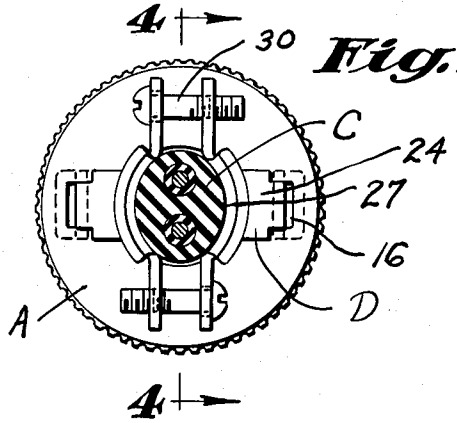


Fig. 3

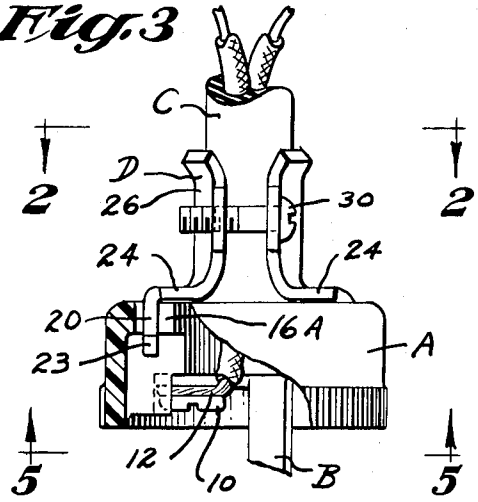


Fig. 4

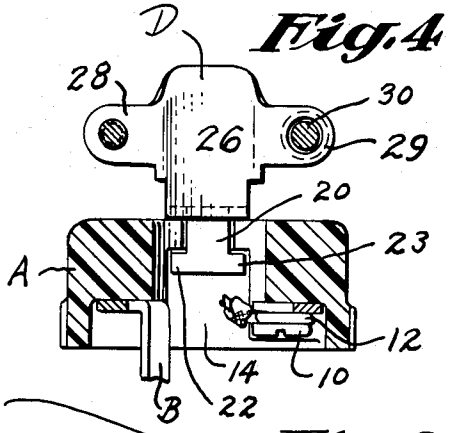


Fig. 6

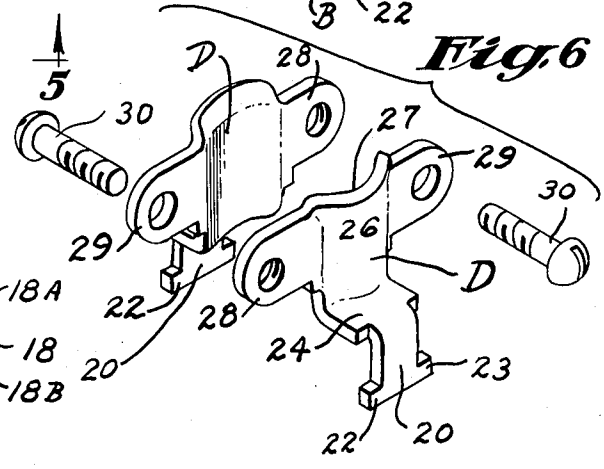
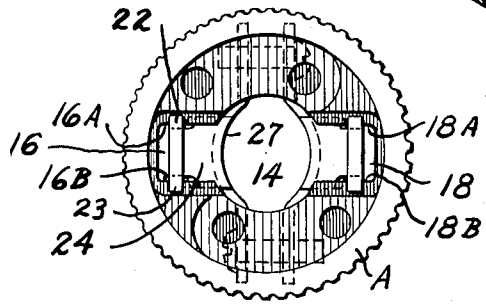


Fig. 5



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2,750,571

CONNECTOR

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Application May 13, 1952, Serial No. 287,540

3 Claims. (Cl. 339—103)

My invention relates to an electrical connector and relates particularly to a plug used for a quick detachable connector.

In prior art quick detachable electrical connectors having strain relieving clamps to prevent the electrical cord from being pulled from the body of the connector have been used. The strain reliever enables the cord to be subjected to relatively hard usage without danger of injuring the electrical connector.

It is an object of my invention to provide an electrical connector wherein a hard insulator shell has a pair of adjustable clamps attached thereto.

Another object of my invention is to provide a plug or cap electrical connector with a pair of stamped adjustable clamps removably connected to said connector for ease of assembly.

Another object of my invention is to provide a detachable electrical plug or connector with an adjustable strain remover wherein the parts may be rapidly and economically assembled.

Other objects of my invention are to provide an improved device of the character described, that is easily and economically produced, which is sturdy in construction, and which is highly efficient in operation.

With the above and related objects in view, my invention consists in the details of construction and combination of parts, as will be more fully understood from the following description, when read in conjunction with the accompanying drawing in which:

Fig. 1 is a perspective view of an electrical plug embodying my invention.

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

Fig. 3 is a fragmentary side view of the electrical plug shown in Fig. 1.

Fig. 4 is a sectional view taken along the line 4—4 of Fig. 2.

Fig. 5 is a view taken along the line 5—5 of Fig. 3, a top view of the plug looking towards the electrical contacts.

Fig. 6 is a perspective view of the cord strain reliever.

Referring now in detail to the drawing wherein a preferred embodiment of my invention is illustrated, I show an electrical plug having a molded insulator casing, generally designated as A, wherein a pair of electrical contact conductors, each of which is generally designated as B, are permanently affixed by rivets. The contacts B are of the conventional type with a removable screw **10** therein so that one wire **12** of a cable, generally designated as C, may be attached thereto.

The shell A has a central passageway **14** through which the cable C passes, and radially extending from the central aperture are a pair of slots or slits **16, 18** having spaced walls.

The slot **16** has spaced parallel walls **16A, 16B**, while the slot **18** has spaced parallel walls **18A, 18B**.

Interfitting with each one of the slots **16** or **18** is one clamp, generally designated as D. Two of the clamps D form a pair to engage and hold the cable C for the purpose of preventing the pulling of the wires from their screw holders **10**.

Each clamp D of similar construction comprises a stem **20** having at its free end a pair of laterally extending ears **22, 23**. The other end of the stem is bent at an angle of 90° at **24** to be the midsection which is wider than the width of the stem **20** and an offset **26** with respect to the stem **20**, is curved at **27** to embrace the cord C. A pair of punched holding ears **28, 29** is formed on the offset **26**.

The clamp D has its stem **20** slide into the slot **16** and it is prevented from being pulled out in the direction of the cord C by the ears **22, 23** engaging the underside of the walls **16A, 16B**.

The top edges of the walls **16A** and **16B** are engaged by the offset **24** so that the clamp D may not be pushed along the axis of the cord D.

The clamps D encircle the cord C and are held in place by screws **30, 30** and the stems **20** may be adjustably moved in either its slot **16** or **18**. The radial distance between the slots **16, 18** when the cord C is in place must be less than the distance between the stems **20, 20** of each clamp D in order to prevent the strain reliever clamps D, D from being pulled away from the insulator body A.

The clamp D may be easily inserted in position by first placing one clamp into its slot and moving it radially as far as it will go then dropping the second clamp D into its slot and passing the cord C between the two strain reliever clamps D, D. The screws **30, 30** hold the clamps against the cord C.

Although my invention has been described in considerable detail, such description is intended as being illustrative rather than limiting, since the invention may be variously embodied, and the scope of the invention is to be determined as claimed.

I claim as my invention:

1. An electrical quick detachable connector having a pair of contacts, an insulator body to which said contacts are affixed, and a strain reliever connected to said body, said strain reliever comprising a pair of clamps identically constructed, each clamp having a stem, a mid-portion and a wire embracing portion integrally formed together, said stem having sides from which ears laterally project adjacent the free ends of said sides, said midportion being wider than the distance between the sides of said stem, and a radially extending slit having side walls in said insulator body into which only said stem may pass and slide, said stem side walls and said slit side walls being adjacent one another.

2. The invention of claim 1 wherein said mid-portion rests above said insulator body, and said ears being located beneath the side walls of said slot.

3. The invention of claim 2, wherein said body has a central opening, a pair of slits radially extending from said central opening, said central opening being wider than said slits.

References Cited in the file of this patent

UNITED STATES PATENTS

1,026,238	Anderson	May 14, 1912
1,890,350	Webster	Dec. 6, 1932
2,063,038	Von Holtz	Dec. 8, 1936
2,201,213	Von Holtz	May 21, 1940
2,553,681	Schmier	May 22, 1951