

Specification

**IMPROVED FIBEROPTIC CONNECTOR AND
IMPROVED FIBEROPTIC CONNECTOR SPLICE**

This application is a continuation in part application of my pending patent application Serial No. _____, filed May 8, 1996 and entitled Double Impact Mounted Ferrule for Fiberoptic Connector, which is a continuation of patent application Serial No. 08/289,945, filed 08/12/94, abandoned.

BACKGROUND OF THE INVENTION**Field of the Invention**

The present invention relates generally to fiberoptic connectors and splices, and more particularly to connectors that mechanically, frictionally engage optical fibers therein at multiple points of contact, and to fiberoptic connector splices that include multiple separate points of alignment of connectors disposed within the splice.

Description of the Prior Art

Connectors that hold optical fibers therewithin utilizing mechanical, frictional engagement are known in the art, such as are described in my issued U.S. Patents 5,216,735 and 5,305,406; and optical fibers are engaged within the connector using my impact mount device disclosed in patent 5,305,406. These prior art connectors achieve a single point of mechanical, frictional engagement, that being at the front tip of the connector where the mechanical deformation of the connector tip is achieved. The present connector invention is an improvement upon these prior art connector in that it includes multiple points of mechanical, frictional engagement of the optical fiber. It is a further improvement in that it achieves the multiple mechanical, frictional engagement points utilizing a single impact process.

Connector splices are well known in the prior art. However, such prior art splices generally provide a single point of alignment of the connectors within the splice. My invention, disclosed herein, includes multiple points of alignment of the connectors within the splice, to achieve a higher quality and more reliable splice.

SUMMARY OF THE INVENTION

A fiberoptic connector for engagement to the end of a fiberoptic cable has an inner terminus member that is mechanically, frictionally engaged to an optical fiber portion of the fiberoptic cable. There is also an outer terminus member that is mechanically, frictionally mounted upon the optical fiber. The outer terminus member has a terminus bore formed therein, having a cone shaped impact mount surface. The inner terminus member is disposed within the terminus bore, such that the cone shaped impact mount surface is disposed in contact with an impact mount surface of said inner terminus member. The fiberoptic connector splice for the aligned interconnection of two fiberoptic connectors includes a first alignment sleeve portion to align first portions of the fiberoptic connectors, and a second

alignment sleeve portion to align second portions of said fiberoptic connectors. The two sleeve portions may be a part of a single alignment sleeve member.

It is an advantage of the fiberoptic connector of the present invention that a stronger engagement of the optical fiber within the connector is achieved.

5 It is another advantage of the fiberoptic connector of the present invention that a plurality of mechanical, frictional optical fiber engagement points are contained within the connector.

It is a further advantage of the fiberoptic connector of the present invention that a single impact mounting step results in multiple mechanical, frictional optical fiber engagement points within the connector body.

It is yet another advantage of the present invention that a more reliable optical fiber connector is produced.

10 It is an advantage of the fiberoptic connector splice of the present invention that a more reliable interconnection of fiberoptic connectors is achieved.

It is another advantage of the fiberoptic connector splice of the present invention that connectors are aligned within the splice at multiple points of alignment.

15 It is a further advantage of the fiberoptic connector splice of the present invention that a strong, reliable splice between optical fibers can be achieved with mechanical means and without the use of epoxy type materials.

These and other features and advantages of the present invention will become understood by those of ordinary skill in the art upon reading the detailed description which follows.

IN THE DRAWINGS

20 Fig. 1 is a perspective view of the improved fiberoptic connector of the present invention;
Fig. 2 is a cross-sectional view of the connector depicted in Fig. 1;
Fig. 3 is an enlarged view of the tip of the connector depicted in Fig. 2;
Fig. 4 is a cross-sectional view depicting a first step in the assembly of the connector depicted in Figs. 1-3;
Fig. 5 is a cross-sectional view depicting a second step in the assembly of the connector depicted in Figs. 1-3;
25 Fig. 6 is a cross-sectional view depicting a third step in the assembly of the connector depicted in Figs. 1-3;
Fig. 7 is a side cross-sectional view of a connector splice of the present invention;
Fig. 8 is a perspective view of the inner sleeve of the splice depicted in Fig. 7;
Fig. 9 is a side cross-sectional view of a second splice embodiment of the present invention;
Fig. 10 is a side cross-sectional view of the splice sleeve of the splice depicted in Fig. 9;
30 Fig. 11 is a cross-sectional view of another splice embodiment of the present invention;
Fig. 12 is a perspective view of the splice sleeve of the splice depicted in Fig. 11;
Fig. 13 is a cross-sectional view of a first step in the assembly of the splice sleeve depicted in Figs. 11 and 12;
and
Fig. 14 is a cross-sectional view of the completed splice depicted in Fig. 12; and
35 Fig. 15 is a cross-sectional view of the splice 200 of the present invention, utilized to join two of the two terminus fiberoptic connectors 10 of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The fiberoptic connector, or terminus, of the present invention is depicted in Figs. 1, 2 and 3 wherein Fig. 1 is a perspective view, Fig. 2 is a cross-sectional view of Fig. 1, and Fig. 3 is an enlarged view of the tip of the connector as depicted in Fig. 2. As depicted in Figs. 1, 2 and 3, the connector 10 is engaged to the end of a fiberoptic cable 12.

5 The fiberoptic cable 12 includes a fiber jacket 14 which surrounds a buffer 16 which surrounds an optical fiber 18, such that the tip 20 of the optical fiber 18 projects to the tip of the connector 10.

The connector 10 includes a generally cylindrical inner terminus member 24 and a generally cylindrical outer terminus member 28. The inner terminus member 24 includes a first axially disposed bore 30 having a diameter sufficient to slidably engage the fiber jacket 14. The length of the bore 30 is generally sufficient to permit the crimping
10 32 of the inner terminus 24 to the fiber jacket 14. An axially disposed inner bore 36 having a diameter that facilitates the slidable engagement of the buffer 16 therewithin is formed at the inner end face 40 of the bore 30. A shoulder 44 is formed into the outer surface of the cylindrical inner terminus 24, such that a nose portion 48 of the inner terminus 24 is formed. The nose portion 48 includes a conically converging section 52 which terminates in a forwardly projecting impact mount tip 56. The impact mount tip 56 includes an axially disposed optical fiber bore 60 formed therethrough
15 such that the optical fiber 18 projects through the optical fiber bore 60.

The outer terminus member 28 includes a generally cylindrical body portion 68 having an integrally formed inwardly sloped cone shaped portion 72 which terminates in an impact mount tip portion 76 having a polished connector engagement surface 80 formed at the front thereof. An inner terminus insertion bore 84 is axially formed within the outer terminus member 28, such that the nose portion 48 of the inner terminus member 24 projects
20 therewithin. The bore 84 terminates in an inwardly projecting cone shaped impact surface 88 which terminates in a further inner bore 92. The bore 92 terminates in a inwardly directed cone shaped bore 94 which terminates in an axially disposed optical fiber passage bore 96, through which the optical fiber 18 projects to its tip 20.

As is best seen in Fig. 3, the outer edge portion of the outer terminus tip 76 is mechanically deformed 100 which results in the mechanical deformation of the outer portion 102 of the optical fiber bore 96. The deformed
25 portion 102 serves to mechanically, frictionally engage the optical fiber 18 within the tip 76 of the outer terminus member 28. In a like manner, the outer edge of the inner terminus tip 56 is mechanically deformed 106, resulting in the mechanical deformation 108 of the outer portion of the inner terminus optical fiber bore 60. The mechanical deformation 108 results in the mechanical, frictional engagement of the optical fiber 18 within the inner terminus tip 56.

30 It is therefore to be understood that the two terminus optical fiber connector 10 includes two separate and distinct mechanical, frictional engagement points of the optical fiber 18 within the connector 10, those points being the mechanically deformed portions 102 and 108 at the tips 76 and 56 respectively of the outer and inner terminus members 28 and 24 respectively.

Figs. 4, 5 and 6 depict steps in a preferred method for manufacturing the two terminus connector depicted in
35 Figs. 1-3 and described hereabove. As depicted in Fig. 4, the inner terminus 24 is placed upon the fiberoptic cable 12 such that the fiber jacket 14 resides within the bore 30. The terminus 24 is then crimped 32 onto the optical fiber 12. The outer terminus 28 is then placed upon the projecting optical fiber 18 and moved downwardly toward the inner

terminus 24 until the inner cone shaped surface 88 of the outer terminus 28 makes contact with the tip 56 of the inner terminus 24, as is depicted in Fig. 5 and further next discussed.

As depicted in Fig. 5, the outer terminus 28 is positioned upon the inner terminus 24 such that the inner sloped surface 88 makes contact with the outer edge 110 of the tip 56 of the inner terminus 24. The connector assembly is then placed within an impact mount device such as is described in my copending U.S. Patent Application Serial No. 08 _____ filed 05/08/96, the disclosure of which is incorporated herein as though set forth in full. Thus, as depicted in Fig. 5, the nose 76 of the outer terminus 28 is disposed within a cone shaped bore 114 formed in the nose portion 118 of an impact driver 120. The projecting end of the optical fiber 18 resides within a central bore 122 formed within the impact driver nose 118. It is to be noted that the outer edge portions 126 of the tip 76 make contact with the surface of the cone shaped bore 114, while simultaneously the outer edges 110 of the tip 56 of the inner terminus make contact with the surface of the cone shaped bore 88, and that a gap 130 exists between the shoulder 44 of the inner terminus 24 and the rearward portion 132 of the body 68 of the outer terminus 28. The rearward portion 136 of the inner terminus 24 is placed against a stationary block or anvil 140, which block 140 includes a passage 144 formed therethrough for the projection of the optical fiber cable 12 therethrough. The effect of the impact driver 120 is next described with the aid of Fig. 6.

Fig. 6 depicts the connector 10 following the assembly impact from the impact driver 120. As depicted therein, the effect of the impact driver 120 is to compress the outer terminus 28 onto the inner terminus 24 while simultaneously mechanically deforming the outer terminus tip edge 126 and the inner terminus tip edge 110. Thus, as depicted in Fig. 6, the outer terminus tip edge has been mechanically deformed 100 whereby the optical fiber bore 96 within the tip 76 has been mechanically collapsed 102 to frictionally engage the optical fiber 18 that passes therethrough. In a like manner, the outer edge 110 of the inner terminus nose 56 has been mechanically deformed 106, whereby the optical fiber bore 60 within the tip 56 has been mechanically collapsed 108 to frictionally engage the optical fiber 18 therewithin. It is also to be noted that the gap 130 has also been reduced by the impacted movement of the outer terminus 28 upon the inner terminus 24.

It is therefore to be understood that the preferred method for manufacturing the connector 10 utilizes a single impact step which results in two mechanical, frictional engagements of the optical fiber 18 within the connector 10, one internal engagement 108 at the internal terminus tip 56, and a second frictional engagement 102 at the outer terminus tip 76.

A first preferred embodiment of the fiberoptic connector splice 200 of the present invention is depicted in Figs. 7 and 8, wherein Fig. 7 is a cross-sectional view of the generally cylindrical splice 200 and Fig. 8 is a perspective view of an inner sleeve component thereof. As depicted in Fig. 7, the splice 200 joins a first optical fiber 202 having a generally cylindrical fiberoptic connector 206 engaged thereto with a second fiberoptic cable 210 having a second generally cylindrical fiberoptic connector 214 engaged thereto. Fiberoptic connectors 206 and 214 include a generally cylindrical body portion 215 and 216 respectively, and a forwardly projecting cylindrical nose portion 218 and 220 respectively, having the tip of their respective optical fibers centrally disposed therewithin. In the preferred embodiment, the optical fiber is mechanically, frictionally engaged within the respective tip 218 and 220 of the

connector, however such an optical fiber engagement is not required for the functioning of the splice 200, and other engagement methods of the optical fiber within a fiberoptic connector 206 and 214 are contemplated.

The splice 200 includes a cylindrical inner alignment sleeve 224 and a cylindrical outer alignment sleeve 228.

The cylindrical inner sleeve 224 is depicted in Fig. 8. The significant features of the inner sleeve 224 are that it possesses a cylindrical bore 232 having a diameter that is substantially identical to the diameters of the cylindrical connector tips 218 and 220 that project therewithin, as depicted in Fig. 7. The inner sleeve 224 thus serves to align the tips 218 and 220 of the fiberoptic connectors 206 and 214, such that optical transmission between the two optical fibers located within the respective tips can be accomplished. The length L of the sleeve 224 is slightly less than the combined length of the two tips 218 and 220 that are disposed within the bore 232, such that the optical fibers disposed within the tips 218 and 220 make flush contact within the sleeve 224. The outer alignment sleeve 228 is a cylindrical member having a connector insertion bore 240 formed therethrough. The diameter of the bore 240 is substantially identical to the diameter of the body portions 215 and 216 of the connectors 206 and 214 respectively, such that the connectors 206 and 214 are slidably engagable within the bore 240 of the outer alignment sleeve 228. The outer diameter of the sleeve 224 is also substantially identical to the diameter of the bore 240, such that the sleeve 224 is slidably engagable within the bore 240.

It is therefore to be understood that the inner alignment sleeve 224 serves to align the tips 218 and 220 of the connectors 206 and 214 respectively, and the sleeve 228 serves to align the body portions 215 and 216 of the connectors 206 and 214 respectively. Thus, the connector splice 200 includes two separate connector alignment points, those being within the inner alignment sleeve 224 and within the outer alignment sleeve 228. To provide strength to the splice, cable jacket sleeves 250 and 252 are placed upon the cables 202 and 210 respectively. The inner diameter of the sleeves 250 and 252 is approximately equal to the diameter of the fiberoptic cable passing therethrough, such that the cable is slidably engagable within the respective cable sleeves 250 and 252. The outer diameter of the cable sleeves 250 and 252 are preferably approximately equal to the outer diameter of the outer alignment sleeve 228. An outer splice sleeve 260 encloses the alignment sleeves 224 and 228, together with the inner ends of the cable sleeves 250 and 252. The sleeve 260 provides strength and stability to the overall splice.

In assembling the splice 200, the various sleeves are crimped onto components disposed therewithin. Thus, the outer alignment sleeve 228 is crimped 266 at each end to the body portions 215 and 216 of the connectors 206 and 214 respectively disposed therewithin. The cable sleeves 250 and 252 are crimped 270 to the fiberoptic cables 202 and 210 respectively disposed therewithin. The outer splice sleeve 260 is crimped 274 to hold the cable sleeves 250 and 252 therewithin. In this manner, a strong, stable splice is created which possesses two fiberoptic connector alignment points (within sleeves 224 and 228) therewithin.

An alternative fiberoptic connector splice 300 is depicted in Figs. 9 and 10, wherein Fig. 9 is a side cross-sectional view of the overall splice 300 and Fig. 10 is a cross-sectional view of the connector alignment sleeve 310 utilized within the splice 300. Initially, it is to be noted that the splice 300 includes several components that are identical to components utilized in splice 200 and described hereabove. For ease of comprehension, the similar components are numbered identically. Thus, the splice 300 joins two fiberoptic cables 202 and 210 together. Each cable 202 and 210 has a fiberoptic connector 206 and 214 respectively engaged to the tip thereof, which connectors are

joined at the tips 218 and 222 thereof. Optical fiber sleeves 250 and 252 are crimped 270 to their respective fiberoptic cables 202 and 210, and an outer splice sleeve 260 is crimped 274 to the fiberoptic cable sleeves 250 and 252 disposed therewithin.

The feature which distinguishes splice 300 from splice 200 is that splice 300 utilizes a single unitary alignment sleeve 310 in place of the two alignment sleeves 224 and 228.

Alignment sleeve 310 is a generally cylindrical member having a fiberoptic connector alignment bore configuration formed therewithin. The bore configuration includes a first connector body alignment bore 314 having a diameter that is approximately equal to the outer diameter of the connector body 215 of connector 206. The bore 314 terminates in a cone shaped bore 318, which internally terminates in a connector tip alignment bore 322. The connector tip alignment bore 322 has a diameter which is substantially equal to the outer diameter of the connector tip 218 such that the tip 218 is slidably engagable therewithin. In a similar manner, a second connector body bore 326 is formed within the sleeve 310 in axial alignment with the bore 314. The diameter of the bore 326 is substantially identical to the diameter of the body portion 216 of the connector 214, such that the connector 214 is slidably engagable therewithin. The bore 326 terminates in a cone shaped bore 330 which terminates in the connector tip bore 322.

With reference to Figs. 9 and 10, it is therefore to be understood that the connector sleeve 310 is formed to slidably engage the two connectors 206 and 214, such that two connector alignment portions exist. The first alignment portion comprises the slidable engagement of the two connector tips 218 and 220 within the connector tip alignment bore 322. The second connector alignment portion comprises the slidable engagement of the connector body portions 215 and 216 within the alignment bores 314 and 326 respectively. To achieve proper alignment and contact between the connector tips 218 and 220, it is important that the length S of the connector tip alignment bore 322 be less than the combined length of the two connector tips 218 and 220. Additionally, it is important that the surface slope of the cone shaped bores 318 and 330 be greater than the slope of the corresponding portions of the connectors 206 and 214.

A further fiberoptic connector splice 400 of the present invention is depicted in Figs. 11, 12, 13 and 14, wherein Fig. 11 is a cross-sectional view, Fig. 12 is a perspective view of an alignment sleeve 410, Fig. 13 is a cross-sectional view depicting a sleeve manufacturing step and Fig. 14 is a cross-sectional view of a manufactured sleeve. As depicted in Fig. 11, the fiberoptic connector splice embodiment 400 includes many identical elements to those previously discussed regarding splice embodiments 200 and 300. Specifically, for ease of comprehension, the similar components are numbered identically. Thus, the splice 400 joins two fiberoptic cables 202 and 210 together. Each cable 202 and 210 has a fiberoptic connector 206 and 214 respectively engaged to the tip thereof, which connectors are joined at the tips 218 and 222 thereof. Optical fiber sleeves 250 and 252 are crimped 270 to their respective fiberoptic cables 202 and 210, and an outer splice sleeve 260 is crimped 274 to the fiberoptic cable sleeves 250 and 252 disposed therewithin.

The connector sleeve 410 includes a cylindrical tubular portion 412 having a connection alignment bore 414 which acts to align the body portions 215 and 216 of the connectors 206 and 214. The connector 410 also includes a molded connector tip alignment portion 416 that is preferably though not necessarily composed of a moldable plastic material. With reference to Figs. 12 and 13, the sleeve 412 includes at least one outer mold material reservoir 420

having a passage 424 formed through the sleeve to the interior bore. As depicted in Fig. 13, to manufacture the sleeve 410 two molding plugs 428 and 430 are inserted into the sleeve bore 414. The plugs 428 and 430 are generally shaped like the connectors 206 and 214, such that a mold void 434 is formed. Thereafter, a moldable material, such as a suitable plastic material is injected into the reservoir 420, through the passage 424 and into the void 434 to fill the void.

5 Fig. 14 depicts the connector sleeve 410 following the injection of the plastic material 416 into the mold and the removal of the mold plugs 428 and 430. It is therefore to be seen that the inner molded portion 440 possesses the general cross-sectional shape of the connector tip alignment portion of the sleeve 310. Specifically, a connector tip alignment bore 444 together with cone-shaped surfaces 448 and 450 are formed, which correspond to the connector tip alignment bore 322 and cone shaped surfaces 318 and 330 of alignment sleeve 310. It is therefore to be understood
10 that the alignment sleeve 410 with its molded inner connector tip alignment portion 440 must possess generally the same dimensions and tolerances as alignment sleeve 310 in order that it function to align two connectors 206 and 214 as depicted in Fig. 11. Thus, alignment sleeve 410 likewise includes two connector alignment portions, a connector tip alignment portion represented by alignment bore 444 and an outer connector body alignment portion represented by sleeve bore 414.

15 Fig. 15 depicts the utilization of the splice embodiment 200 of the present invention to connect two of the two terminus fiberoptic connectors 10 of the present invention. The splice 500 depicted in Fig. 15 connects a first two terminus fiberoptic connector 10R with a second two terminus fiberoptic connector 10L, where R refers to the right hand connector and L to the left hand connector and components thereof. The splice 500 includes an inner connector alignment sleeve 510 which includes an alignment bore 512 having a diameter sufficient to slidably engage the
20 projecting tips 76R and 76L of the two connectors. The splice 500 further includes an outer connector alignment sleeve 520 having a connector bore 522 having a diameter sufficient to slidably engage the connector body portions 215R, 216R, 215L and 216L of the connectors 10R and 10L respectively. Cable jacket sleeves 526 and 528 are crimped 530 to the fiber jacket of the fiberoptic cables interconnected to the connectors 10R and 10L. An outer splice sleeve 540 is formed with a bore having a suitable diameter to slidably engage the outer alignment sleeve 520 and the
25 jacket sleeves 526 and 530, and the outer splice sleeve 540 is crimped 542 to the jacket sleeves 526 and 528.

It is therefore to be understood that the splice 500 includes multiple alignment points for the fiberoptic connectors disposed therewithin. Specifically, the inner alignment sleeve 510 serves to align the tip portions 76R and 76L of the connectors 10R and 10L. The outer splice sleeve serves to align the body portion 215R and 215L of the outer terminus members 28R and 28L. The outer alignment sleeve also serves to align the body portions 216R and
30 216L of the inner terminus members 24R and 24L of the connectors 10R and 10L respectively.

While the invention has been shown and described with reference to certain specific embodiments, it will become obvious to those of ordinary skill in the art upon reading the detailed description that certain alterations and modifications in form and detail can be made in the described embodiments, without departing from the spirit and scope of the invention. It is therefore to be understood that the following claims are intended to cover all such
35 alterations and modifications as fall within the true spirit and scope of the invention.

What I claim is:

CLAIMS

1. A fiberoptic connector for engagement to the end of a fiberoptic cable comprising:
a first terminus member being engaged to an optical fiber disposed within said fiberoptic cable;
5 a second terminus member being engaged to said optical fiber.
2. A connector as described in claim 1 wherein portions of said first terminus member are disposed within portions of said second terminus member.
- 10 3. A connector as described in claim 2 wherein said engagement of said first terminus member with said optical fiber is disposed within said second terminus member.
4. A connector as described in claim 1 wherein said first terminus member is mechanically, frictionally engaged to said optical fiber, and wherein said second terminus member is mechanically, frictionally engaged to said optical
15 fiber.
5. A fiberoptic connector for engagement to the end of a fiberoptic cable comprising:
an inner terminus member being mounted upon an optical fiber portion of said fiberoptic cable, said inner terminus member being mechanically, frictionally engaged to said optical fiber;
20 an outer terminus member being mounted upon said optical fiber, said outer terminus being mechanically, frictionally engaged to said optical fiber; said outer terminus member having a terminus bore formed therein, said bore having a cone shaped impact mount surface thereof; and wherein said inner terminus member is disposed within said terminus bore, such that said cone shaped impact mount surface is disposed in contact with an impact mount surface of said inner terminus member.
- 25 6. A fiberoptic connector splice for the aligned interconnection of two fiberoptic connectors, comprising:
a first alignment portion of said splice being disposed to make contact with first portions of said fiberoptic connectors to align said first portions of said fiberoptic connectors;
a second alignment portion of said splice being disposed to make contact with second portions of said two
30 fiberoptic connectors to align said second portions of said fiberoptic connectors.
7. A splice as described in claim 6 wherein said first portions of said fiberoptic connectors comprise cylindrical tip segments thereof, and said first alignment portion of said splice includes a cylindrical bore having a diameter slightly larger than said tip portions.
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8. A splice as described in claim 6 wherein said second portions of said fiberoptic connectors comprise cylindrical body segments thereof, and said second alignment portions of said splice include a cylindrical bore having a diameter slightly larger than said body portions.

5 9. A splice as described in claim 6 wherein said first portions of said fiberoptic connectors comprise cylindrical tip segments thereof, and said first alignment portion of said splice includes a cylindrical bore having a diameter slightly larger than said tip portions; and wherein said second portions of said fiberoptic connectors comprise cylindrical body segments thereof, and said second alignment portions of said splice include a cylindrical bore having a diameter slightly larger than said body portions.

10 10. A splice as described in claim 9 wherein said first and second alignment portions of said splice are formed within an alignment sleeve member having a first alignment bore and a second alignment bore coaxially formed therewithin.

15 11. A splice as described in claim 10 wherein said alignment sleeve comprises a single, integrally formed member.

12. A splice as described in claim 10 wherein said alignment sleeve comprises a cylindrical sleeve portion and a molded inner sleeve portion engaged thereto.

20 13. A splice as described in claim 10 wherein said alignment sleeve comprises two slidably engagable cylindrical sleeve members including an outer cylindrical sleeve member and an inner cylindrical sleeve member and wherein said inner sleeve member is slidably engagable within said outer sleeve member.

25 14. A splice as described in claim 7 wherein said bore is formed with a length that is less than a combined length of said two tip portions of said two fiberoptic connectors.

15. A method for engaging a fiberoptic connector upon a fiberoptic cable comprising the steps of:
mounting a first terminus member upon an optical fiber portion of said fiberoptic cable;
30 mounting a second terminus member upon said optical fiber;
impact mounting both said outer terminus member and said inner terminus member onto said optical fiber with a single impact mount impact.

16. A method as described in claim 15 wherein said inner terminus member is formed within a deformable tip
35 portion;
said outer terminus member is formed with a deformable tip portion, and said outer terminus member is formed with an inner impact mount surface; and

said step of impact mounting includes the impact of said inner impact mount surface with said inner terminus deformable tip portion, and the impact deformation of said outer terminus deformable tip in said single impact.

