WHAT IS CLAIMED IS:

1. A cable splice shell, comprising:

at least one end surface for passing therethrough a first cable, ~~wherein~~ the first cable ~~has~~ having a fiber-optic core therein and ~~is~~ being bent in a U-shape without breaking the fiber-optic core, ~~and the~~ for the bent first cable ~~has~~ to have an inner part disposed ~~in~~inside the cable splice shell and an outer part disposed ~~out~~outside of the cable splice shell;

at least a first hollow cylindrical tube formed on the end surface and for passing therethrough the bent first cable;

at least an auxiliary device for cooperating with the outer part of the bent first cable to form a first waterproof structure; and

at least ~~a first~~ one elastic shrinkable tube for covering an outer surface of the first hollow cylindrical tube and an outer surface of the auxiliary device to form a second waterproof structure, for the elastic shrinkable tube to further partially cover the outer part of the bent first cable.

2. The cable splice shell according to claim 1, wherein the auxiliary device has at least one component selected from the group consisting of a cable bundling shell body, a fixing screw, a waterproof glue having characteristics of adhesion and plasticity, an elastomer waterproof pad and a combination thereof.

~~3. The cable splice shell according to claim 1, wherein the first shrinkable tube is one selected from the group consisting of an elastic shrinkable tube, a heat shrinkable tube and a combination thereof.~~

~~4~~3. The cable splice shell according to claim 1, wherein the end surface has a second hollow cylindrical tube formed thereon for passing therethrough a second cable.

~~5~~4. The cable splice shell according to claim ~~4~~3, further comprising a second shrinkable tube for covering an outer surface of the second hollow cylindrical tube and a part of the second cable passing out of the second hollow cylindrical tube to form a third waterproof structure.

~~6~~5. The cable splice shell according to claim 1, further comprising at least a first cable fixture device for fixing the inner part of the bent first cable.

~~7~~6. The cable splice shell according to claim ~~6~~5, wherein the first cable fixture device has at least one component selected from the group consisting of a fastening ring, a fastening band, a clamping joint and a combination thereof.

~~8~~7. The cable splice shell according to claim 1, wherein the end surface has a first location for passing therethrough a main cable, the cable splice shell further comprises therein at least a collecting disk support with a collecting disk, and the first location is disposed at a first linear path ~~on which~~ for entry of the main cable ~~enters~~ in the cable splice shell without being blocked and interfered ~~by~~with the collecting disk.

~~9~~8. The cable splice shell according to claim ~~8~~7, wherein the end surface has a second location for passing therethrough a third cable, and the second location is disposed at a second linear path ~~on which~~ for entry of the third cable ~~enters~~ in the cable splice shell without being blocked and interfered ~~by~~with the collecting disk.

~~10~~9. The cable splice shell according to claim ~~9~~8, further comprising a second cable fixture device for fixing the collecting disk support, wherein the second cable fixture device ~~fixes~~ is arranged to fix the collecting disk support at a specific position corresponding to the second location.

~~11~~10. A cable splice shell, comprising:

at least one end surface for passing therethrough a cable bent into a first part having a U-shaped part for disposal ~~in~~inside the cable splice shell and a second part having a linear part for disposal ~~out~~outside of the cable splice shell, wherein the linear part of the cable has an interstice;

at least a hollow tube formed on the end surface and for passing therethrough the cable;

at least an auxiliary device for cooperating with the linear part of the cable and filling the interstice to form a first waterproof structure; and

at least ~~a first~~ one elastic shrinkable device for covering an outer surface of the hollow tube and an outer surface of the auxiliary device to form a second waterproof structure.

~~12~~11. The cable splice shell according to claim ~~11~~10, wherein the auxiliary device has at least one component selected from the group consisting of a cable bundling shell body, a fixing screw, a waterproof glue having characteristics of adhesion and plasticity, an elastomer waterproof pad and a combination thereof.

~~13~~12. The cable splice shell according to claim ~~11~~10, further comprising at least a cable fixture device for fixing the U-shaped part of the cable.

~~14~~13. The cable splice shell according to claim ~~13~~12, wherein the cable fixture device has at least one component selected from the group consisting of a fastening ring, a fastening band, a clamping joint and a combination thereof.

~~15~~14. A cable splice shell, comprising:

an end surface separating the cable splice shell into an inner part and an outer part;

at least a hollow tube configured on the end surface and for passing therethrough a cable, ~~wherein~~ for the cable to extend ~~extends~~ from the outer part to the inner part through the hollow tube, to leave ~~leaves~~ a portion in the inner part, and ~~leaves~~ to leave from the inner part through the hollow tube toward the outer part, the cable ~~has~~ having a first segment before extending into the inner part and a second segment leaving from the inner part, and the first and the second segments have an interstice therebetween; ~~and~~

at least an auxiliary device for filling the interstice; and

at least one elastic shrinkable device for covering an outer surface of the hollow tube and an outer surface of the auxiliary device to form a second waterproof structure.

~~16~~15. The cable splice shell according to claim~~ed~~ ~~15~~14, wherein the auxiliary device ~~fills~~ is arranged to fill the interstice to form a first waterproof structure.

~~17. The cable splice shell according to claimed 15, further comprising at least a shrinkable device covering an outer surface of the hollow tube and an outer surface of the auxiliary device to form a second waterproof structure.~~

~~18~~16. The cable splice shell according to claim ~~15~~14, wherein the auxiliary device has at least one component selected from the group consisting of a cable bundling shell body, a fixing screw, a waterproof glue having characteristics of adhesion and plasticity, an elastomer waterproof pad and a combination thereof.

~~19~~17. The cable splice shell according to claim ~~15~~14, further comprising at least a cable fixture device for fixing the portion of the cable in the inner part.

~~20~~18. The cable splice shell according to claim ~~19~~17, wherein the cable fixture device has at least one component selected from the group consisting of a fastening ring, a fastening band, a clamping joint and a combination thereof.