WHAT IS CLAIMED IS:

1. A fire and explosion proof structure for a high-voltage cable joint, comprising a fire and explosion proof blanket (2) for wrapping the high-voltage cable joint (1), a locking mechanism (3) for fixing the fire and explosion proof blanket (2) to the high-voltage cable joint (1), and an explosion proof net cover (4) for wrapping the fire and explosion proof blanket (2) and the locking mechanism (3), wherein the fire and explosion proof blanket (2) comprises a first high-silica cloth layer (201), a first flame-retardant rubber sheet layer (202), a first explosion proof woven blanket layer (203), a second flame-retardant rubber sheet layer (204), a second explosion proof woven blanket layer (205) and a second high-silica cloth layer (206) which are arranged in sequence from inside to outside.

2. The fire and explosion proof structure for a high-voltage cable joint according to claim 1, wherein each of the first explosion proof woven blanket layer (203) and the second explosion proof woven blanket layer (205) is a blanket-like structure which is obtained by lapping a plurality of groups of explosion proof webbing (5) in a width direction and sewing the explosion proof webbing into a whole by sewing lines.

3. The fire and explosion proof structure for a high-voltage cable joint according to claim 2, wherein the blanket-like structure is formed by lapping the latter group of explosion proof webbing (5) on an upper surface of the previous group of explosion proof webbing (5).

4. The fire and explosion proof structure for a high-voltage cable joint according to claim 3, wherein the latter group of explosion proof webbing (5) is lapped at half a width of the upper surface of the previous group of explosion proof webbing (5).

5. The fire and explosion proof structure for a high-voltage cable joint according to claim 2, wherein a long-side extension direction of each group of explosion proof webbing (5) in the first explosion proof woven blanket layer (203) is perpendicular to a long-side extension direction of each group of explosion proof webbing (5) in the second explosion proof woven blanket layer (205).

6. The fire and explosion proof structure for a high-voltage cable joint according to claim 5, wherein the long-side extension direction of each group of explosion proof webbing (5) in the first explosion proof woven blanket layer (203) is perpendicular to an axis direction of the high-voltage cable joint (1), and the long-side extension direction of each group of explosion proof webbing (5) in the second explosion proof woven blanket layer (205) is parallel to the axis direction of the high-voltage cable joint (1).

7. The fire and explosion proof structure for a high-voltage cable joint according to claim 2, wherein the locking mechanism (3) comprises a plurality of groups of explosion proof tightening belts (301) arranged at intervals, and an end of the explosion proof tightening belt (301) is provided with a locking buckle (302).

8. The fire and explosion proof structure for a high-voltage cable joint according to claim 7, wherein each of the explosion proof webbing (5), the sewing line and the explosion proof tightening belt (301) is made of aramid fiber, and the explosion proof net cover (4) is made of stainless steel.

9. A manufacturing method for the fire and explosion proof structure for a high-voltage cable joint according to any one of claims 1 to 8, comprising the following steps:

(S1) lapping explosion proof webbing (5) in sequence in a width direction, lapping the latter group of explosion proof webbing (5) at half a width of an upper surface of a previous group of explosion proof webbing (5), sewing each group of explosion proof webbing (5) into a whole by sewing lines, so as to obtain a first explosion proof woven blanket layer (203) and a second explosion proof woven blanket layer (205), respectively;

(S2) longitudinally arranging the first explosion proof woven blanket layer (203), and transversely arranging the second explosion proof woven blanket layer (205), and sequentially laminating a first high-silica cloth layer (201), a first flame-retardant rubber sheet layer (202), the first explosion proof woven blanket layer (203), a second flame-retardant rubber sheet layer (204), the second explosion proof woven blanket layer (205) and a second high-silica cloth layer (206) from top to bottom, and then sewing, by the sewing lines, the first high-silica cloth layer (201), the first flame-retardant rubber sheet layer (202), the first explosion proof woven blanket layer (203), the second flame-retardant rubber sheet layer (204), the second explosion proof woven blanket layer (205) and the second high-silica cloth layer (206) into a whole to obtain a fire and explosion proof blanket (2);

(S3) taking one side of the first high-silica cloth layer (201) as an inner side, and wrapping a high-voltage cable joint (1) with the fire and explosion proof blanket (2);

(S4) surrounding and locking an outer side of the fire and explosion proof blanket (2) with a locking mechanism (3); and

(S5) wrapping and locking outer sides of the fire and explosion proof blanket (2) and the locking mechanism (3) with the explosion proof net cover (4).

10. A manufacturing method for the fire and explosion proof structure for a high-voltage cable joint according to any one of claims 1 to 8, comprising the following steps:

(S1) lapping explosion proof webbing (5) in sequence in a width direction, lapping the latter group of explosion proof webbing (5) at half a width of an upper surface of a previous group of explosion proof webbing (5), sewing each group of explosion proof webbing (5) into a whole by sewing lines, so as to obtain a first explosion proof woven blanket layer (203) and a second explosion proof woven blanket layer (205), respectively;

(S2) wrapping a high-voltage cable joint (1) with a first high-silica cloth layer (201);

(S3) longitudinally arranging a first explosion proof woven blanket layer (203), and wrapping the first high-silica cloth layer (201) with a first flame-retardant rubber sheet layer (202);

(S4) wrapping the first flame-retardant rubber sheet layer (202) with the first explosion proof woven blanket layer (203);

(S5) wrapping the first explosion proof woven blanket layer (203) with a second flame-retardant rubber sheet layer (204);

(S6) transversely arranging a second explosion proof woven blanket layer (205), and wrapping the second flame-retardant rubber sheet layer (204) with the second explosion proof woven blanket layer (205);

(S7) wrapping the second explosion proof woven blanket layer (205) with a second high-silica cloth layer (206);

(S8) surrounding and locking an outer side of the second high-silica cloth layer (206) with a locking mechanism (3); and

(S9) wrapping and locking outer sides of the second high-silica cloth layer (206) and the locking mechanism (3) with an explosion proof net cover (4).