CLAIMS:

1. A joint method for a reinforcing bar comprising the steps of:

1) providing a strong elongated reinforcement joint which is surrounded by a side wall, is a cylindrical body having openings at both the left and right ends, and includes a grout inlet provided at one end of the side wall and an outlet provided at the other end;

2) when the grout inlet is a protruding opening protruding outward, fitting the protruding opening with a cylindrical sealing body constituted of an elastic body including a check valve provided at one end;

3) when the grout outlet is a protruding opening protruding outward, fitting a sealing plug in the protruding opening directly or through an extending pipe, the sealing plug including a plug body constituted of an elastic body having a through hole at the center, a shaft body movably loosely inserted into the through hole, and a piston body including a pressure receiver provided at a position protruding from the plug body of the shaft body and located inside and a retaining end provided at the position protruding from the plug body of the shaft body and located outside;

4) loosely inserting the reinforcing bars into an inside space of the cylindrical body from both the left and right ends at a position which is a connecting portion between the reinforcing bars in a member, a structure, or the like until the reinforcing bars reach an abutment position or a proximal position;

5) forcibly pressing the shaft body in the through hole of the sealing plug from outside to inside and positioning so that the pressure receiver at a front end of the shaft body protrudes to the cylindrical body side and the inside space of the cylindrical body and the through hole communicate with each other;

6) mounting a grout insertion end of a tube body connected to a grout supply means to a sealing body fitted in the grout inlet and injecting a grout into the inside space of the cylindrical body or into a gap between the inside space and a member or a structure communicating with the inside space by pump pressure;

7) previously flowing paste components of the grout in the through hole through a communicating portion between the pressure receiver protruding toward the cylindrical body of the sealing plug fitted in the grout outlet and the inside space of the cylindrical body and filling the inside of the through hole; and

8) stopping the injection of the grout once the pressure receiver is pushed outward by pressure of the grout continuously filled in the inside space of the cylindrical body and the retaining end of the shaft body protrudingly moves outward to a predetermined position.

2. The~~A joint~~ method according to claim 1, wherein between said step 1) and step 2) is included ~~for a reinforcing bar comprising the~~ a steps of:

~~providing a strong elongated reinforcement joint which is surrounded by a side wall, is a cylindrical body having openings at both the left and right ends, and includes a grout inlet provided at one end of the side wall and an outlet provided at the other end;~~

providing a sealing member with a reinforcing bar insertion hole at one or both openings at both the left and right ends of the cylindrical body and blocking a gap generated between the inserted reinforcing bar and an edge portion of the opening;

~~when the grout inlet is a protruding opening protruding outward, fitting a~~

cylindrical sealing body constituted of an elastic body including a check valve provided at one end of the protruding opening;

when the grout outlet is a protruding opening protruding outward, fitting a sealing plug in the protruding opening directly or through an extending pipe, the sealing plug including a plug body constituted of an elastic body having a through hole at the center, a shaft body movably loosely inserted into the through hole, and a piston body including a pressure receiver provided at a position protruding from the plug body of the shaft body and located inside and a retaining end provided at the position protruding from the plug body of the shaft body and located outside;

loosely inserting the reinforcing bars into an inside space of the cylindrical body from both the left and right ends at a position which is a connecting portion between the reinforcing bars in a member, a structure, or the like until the reinforcing bars reach an abutment position or a proximal position;

forcibly pressing the shaft body in the through hole of the sealing plug from outside to inside and positioning so that the pressure receiver at a front end of the shaft body protrudes to the cylindrical body side and the inside space of the cylindrical body and the through hole communicate with each other;

mounting a grout insertion end of a tube body connected to a grout supply means to a sealing body fitted in the grout inlet and injecting a grout into the inside space of the cylindrical body or into a gap between the inside space and a member or a structure communicating with the inside space by pump pressure;

previously flowing paste components of the grout in the through hole through a communicating portion between the pressure receiver protruding

~~toward the cylindrical body of the sealing plug fitted in the grout outlet and the inside space of the cylindrical body and filling the inside of the through hole; and~~

~~stopping the injection of the grout once the pressure receiver is pushed outward by pressure of the grout continuously filled in the inside space of the cylindrical body and the retaining end of the shaft body protrudingly moves outward to a predetermined position.~~

3. The~~A joint~~ method according to claim 1, wherein between said step 3) and step 4) is included ~~for a reinforcing bar comprising the~~ a steps~~ of:~~

~~providing a strong elongated reinforcement joint which is surrounded by a side wall, is a cylindrical body having openings at both the left and right ends, and includes a grout inlet provided at one end of the side wall and an outlet provided at the other end;~~

~~when the grout inlet is a protruding opening protruding outward, fitting the protruding opening with a cylindrical sealing body constituted of an elastic body including a check valve provided at one end;~~

~~when the grout outlet is a protruding opening protruding outward, fitting a sealing plug in the protruding opening directly or through an extending pipe, the sealing plug including a plug body constituted of an elastic body having a through hole at the center, a shaft body movably loosely inserted into the through hole, and a piston body including a pressure receiver provided at a position protruding from the plug body of the shaft body and located inside and a retaining end provided at the position protruding from the plug body of the shaft body and located outside;~~

providing a sealing member with a reinforcing bar insertion hole at one or

both openings at both the left and right ends of the cylindrical body and blocking a gap generated between the inserted reinforcing bar and an edge portion of the opening;

loosely inserting the reinforcing bars into an inside space of the cylindrical body from both the left and right ends at a position which is a connecting portion between the reinforcing bars in a member, a structure, or the like until the reinforcing bars reach an abutment position or a proximal position;

forcibly pressing the shaft body in the through hole of the sealing plug from outside to inside and positioning so that the pressure receiver at a front end of the shaft body protrudes to the cylindrical body side and the inside space of the cylindrical body and the through hole communicate with each other;

mounting a grout insertion end of a tube body connected to a grout supply means to a sealing body fitted in the grout inlet and injecting a grout into the inside space of the cylindrical body or into a gap between the inside space and a member or a structure communicating with the inside space by pump pressure;

previously flowing paste components of the grout in the through hole through a communicating portion between the pressure receiver protruding toward the cylindrical body of the sealing plug fitted in the grout outlet and the inside space of the cylindrical body and filling the inside of the through hole; and

stopping the injection of the grout once the pressure receiver is pushed outward by pressure of the grout continuously filled in the inside space of the cylindrical body and the retaining end of the shaft body protrudingly moves outward to a predetermined position.

4. The joint method for a reinforcing bar according to any one of claims 1 to 3, wherein in a final step of stopping the injection of the grout once the pressure receiver protruding toward the cylindrical body of the plug body fitted in the protruding opening of the grout outlet directly or through the extension pipe is pushed outward by the pressure of the grout filled in the inside space of the cylindrical body and the retaining end side of the shaft body protrudingly moves outward to the predetermined position, the grout enters into a plurality of reinforcement joints at other positions through a gap generated between members or structures at a position which is the connecting portion between the reinforcing bars in the member, the structure, or the like, and the injection of the grout is stopped once the retaining end sides of all the shaft bodies of the plurality of reinforcement joints protrudingly move outward to the predetermined position.

5. The joint method for a reinforcing bar according to any one of claims 1 to 3, wherein the sealing body is a long member having a length longer than the protruding length of the protruding opening provided extending in a longitudinal direction.

6. The joint method for a reinforcing bar according to any one of claims 1 to 3, wherein the check valve of the sealing body is provided on the inside space side of the cylindrical body.

7. The joint method for a reinforcing bar according to any one of claims 1 to 3, wherein the check valve of the sealing body is provided on the side of the

cylindrical body as the grout supply means.

8. The joint method for a reinforcing bar according to any one of claims 1 to 3, wherein the pressure receiver of the plug body is provided removably from the shaft body.

9. The joint method for a reinforcing bar according to any one of claims 1 to 3, wherein the plug body of the sealing plug is formed so that a tapered surface is formed on a side surface in which an insertion side as a protruding opening side of an outlet is a small-diameter end surface and the other end side is a large-diameter end surface.

10. The joint method for a reinforcing bar according to any one of claims 1 to 3, wherein the grout insertion end of the tube body is a nozzle.

11. The joint method for a reinforcing bar according to any one of claims 1 to 3, wherein the grout insertion end of the tube body is mounted to an outer end of the sealing body.