What is claimed is:

1. A shield method in which a tunnel is made using a shield machine between two shafts constructed in the ground, the method comprising the following steps performed in this order:

a first step of providing a first cylindrical frame at a position where an entrance is to be formed in an inner surface of an earth retaining wall of a shaft on an arrival side of the shield machine, the first cylindrical frame into which the shield machine goes without coming into contact with any part thereof;

a second step of excavating a horizontal hole in the underground by the shield machine, sequentially adding and building, in an excavation direction, a plurality of segments that serves as an outer shell of the tunnel on an inner diameter side of the horizontal hole, and stopping, after forming the entrance in the arrival shaft, the shield machine such that the shield machine stays in the entrance;

a third step of temporarily stopping water from a gap between an inner circumference of the entrance and an outer circumferential surface of the shield machine, and after that removing excavated soil and pieces that enter the first cylindrical frame as a result of forming the entrance;

a fourth step of coupling a second cylindrical frame to an inner open end of the first cylindrical frame, the second cylindrical frame having at least a same inner diameter as an inner diameter of the first cylindrical frame, and furthermore having a sealing member that is attached to an inner diameter side of the second cylindrical frame;

a fifth step of pressing the sealing member against the outer circumferential surface of the shield machine when the shield machine goes beyond the sealing member after performing the fourth step;

a sixth step of further tightly pressing the sealing member against an outer circumferential surface of the segments when the shield machine moves

further forward and reaches a location where the outer circumferential surface of the segments comes into contact with the sealing member;

a first auxiliary step of providing a temporary lid on the inner open end of the first cylindrical frame such that the inner open end is closed, and filling a space surrounded by the temporary lid, the first cylindrical frame and the earth retaining wall with a filler, the first auxiliary step being performed before advancing to the second step after performing the first step;

a second auxiliary step of removing the temporary lid, the second auxiliary step being performed before advancing to the third step after performing the second step;

a third auxiliary step of providing a temporary lid on an inner open end of the second cylindrical frame such that the inner open end is closed, the third auxiliary step being performed before advancing to the fifth step after performing the fourth step; and

a fourth auxiliary step of removing the temporary lid that is provided in the third auxiliary step, the fourth auxiliary step being performed after performing the fifth step.

2. The shield method according to claim 1, wherein

the sealing member includes: a tapered-shaped elastic sheet that is fixed to an inner circumferential surface of the second cylindrical frame, the elastic sheet having an inner diameter smaller than an outer diameter of the shield machine and an outer diameter of the segments; and a pressurizing member that bends the elastic sheet to reduce a diameter of the elastic sheet so that an inner circumferential part of the elastic sheet is pressed against the outer circumferential surface of the shield machine and the outer circumferential surface of the segments.

3. The shield method according to claim 2, wherein

the pressurizing member includes: an elastic tube that expands as an inside thereof is filled with fluid; and a filling device that reduces the diameter of the elastic sheet by filling the elastic tube with the fluid.

4. The shield method according to claim 1, wherein

the sealing member includes: an annular-shaped elastic sheet fixed to the inner open end of the second cylindrical frame so as to extend inside in a radial direction, the elastic sheet having an inner diameter smaller than an outer diameter of the shield machine and an outer diameter of the segments; and a wire mounted on a farther and outer side of the elastic sheet relative to the entrance, the wire being loosened to allow a diameter thereof to be expanded so that the elastic sheet is bent when the shield machine enters an inner diameter side of the elastic sheet, while being tightened to allow the diameter to be reduced so that an inner circumferential part of the elastic sheet is pressed against the outer circumferential surface of the shield machine.