Claims

1. A pipe-connecting clamp for connecting pipes each having a flange at an end thereof, the clamp comprising:

first and second clamping members including respective grooves into which a pair of flanges are fitted;

a connection member that connects the first and second clamping members in an openable/closable fashion;

a roller support member rotatably disposed on the second clamping member; and

a roller rotatably supported by the roller support member,

wherein the first clamping member has a concave portion, and the flanges are pressed and fixed by the first and second clamping members by rotating the roller support member and moving the roller to the concave portion, the first clamping member includes a slope that is provided in continuation with the concave portion to guide the roller such that the roller rolls over the slope onto the concave portion, and the concave portion is provided between an upper surface of the first clamping member and the slope.

2. The pipe-connecting clamp according to Claim 1, wherein a crest is present at a boundary between the concave portion and the slope.

3. The pipe-connecting clamp according to Claim 2, wherein the first clamping member includes a lock portion defined by a substantially S-shaped upper surface.

4. The pipe-connecting clamp according to Claim 1, wherein anti-slipping treatment is carried out on the slope and a surface of the roller.

5. The pipe-connecting clamp according to Claim 4, wherein treatment for reducing friction resistance is carried out on a surface of the concave portion, including a bottom thereof.

6. The pipe-connecting clamp according to Claim 1, wherein a surface of the concave portion, including a bottom thereof, is a smooth surface.

7. The pipe-connecting clamp according to Claim 1, further comprising a mechanism that enhances a pressing force applied by the roller.

8. The pipe-connecting clamp according to Claim 1, wherein the roller includes an operating member having a larger diameter than the roller.

9. The pipe-connecting clamp according to Claim 1, wherein the roller support member is capable of swinging like a pendulum around an axis defined by a roller swing axis member that is pivotally mounted to the second clamping member.

10. The pipe-connecting clamp according to Claim 1, wherein the roller has an annular shape.