CLAIMS

1. A method of making a wall (10) in soil, the method comprising at least the following succession of steps:

· forming a trench (14, 14') in the soil;

· filling said trench (14, 14') with a self-hardening material (22);

· supplying at least one prefabricated element (241, 242, 241') comprising two plates (26a, 26b) connected together by connection means (28); and

· positioning said prefabricated element (241, 242, 241') in said trench (14, 14') filled with said self-hardening material (22).

2. A method according to claim 1, characterized in that, after positioning the prefabricated element (241, 242, 241') in the trench (14, 14'), and after the self-hardening material (22) has solidified, a zone of ground (20) defined by one of the main faces of the wall (10) is removed, whereby the prefabricated element serves to support the soil.

3. A method according to claim 1 or claim 2, characterized in that the self-hardening material (22) is constituted by an added self-hardening slurry that takes the place of the soil excavated from the trench (14, 14').

4. A method according to claim 1 or claim 2, characterized in that the self-hardening material (22) is constituted by a mixture of added self-hardening slurry and a fraction of the soil excavated from said trench (14, 14').

5. A method according to any one of claims 1 to 4, characterized in that the prefabricated element (241, 242, 241') is vibrated while being lowered into said

trench (14, 14'), thereby making it easier to put the prefabricated element (241, 242, 241') into place.

6. A method according to any one of claims 1 to 5, characterized in that two low guide walls (12a, 12b) marking the desired location for the wall (10) are made in the soil that is to be excavated, in that the trench (14, 14') is formed vertically between the two low guide walls (12a, 12b), in that the prefabricated element (241, 242, 241') includes positioning members (29) at its top end, and in that after inserting the prefabricated element (241, 242, 241') in the trench (14, 14'), it is held in position in the trench (14, 14') by holder means (40) that co-operate with said positioning members (29) and that bear transversely against the low guide walls (12a, 12b).

7. A method according to any one of claims 1 to 6, characterized in that a first prefabricated element (241) and then at least one second prefabricated element (242) are put into position in said trench (14), the first prefabricated element (241) including, on its side facing towards the second prefabricated element (242), at least one hollow housing (30) extending in the height direction of said first prefabricated element (241), in that the second prefabricated element (242) includes at least one guide (44) of profile complementary to said housing (30), the guide being fastened to its side facing towards said first prefabricated element (241), and in that, in order to connect the second prefabricated element (242) to the first prefabricated element (241), the guide (44) of the second prefabricated element (242) is threaded progressively into the housing (30) of the first prefabricated element (241) until the top faces of the two prefabricated elements (241, 242) are at substantially the same height.

8. A method according to claim 7, characterized in that while inserting the second prefabricated element (242), a sealing gasket (46) previously fastened to said second prefabricated element (242) and extending substantially along the entire height thereof, is threaded in the housing (30) of said first prefabricated element (241).

9. A method according to any one of claims 1 to 8, characterized in that a second trench (14') is made adjacent to the first trench (241).

10. A method according to claim 9, characterized in that prior to excavating the second trench (14'), a temporary protection element (52) is placed in the first trench (14) facing the location intended for the second trench (14'), the protection element (52) presenting a width and a height that are at least substantially identical to the width and the height of the prefabricated element.

11. A wall (10) made in accordance with the method according to any one of claims 1 to 10.

12. A wall (10) formed in soil, the wall comprising at least one prefabricated element (241, 242, 241') and a self-hardening material (22) coating said prefabricated element (241, 242, 241') at least in part, the wall being characterized in that the prefabricated element (241, 242, 241') is constituted, on being fabricated, by two plates (26a, 26b) that are placed facing each other, parallel to each other, and spaced apart from each other, being connected together by connection means (28) so that the prefabricated element is provided with at least one hollow (27), in that said connection means are made of metal, in that the prefabricated element (241, 242, 241') includes, at at least one of its lateral ends, at least one hollow housing (30) extending in its height direction, and in that the prefabricated element also

includes, at its opposite end, at least one guide (44) of shape complementary to said hollow housing (30).

13. A wall according to claim 12, characterized in that, looking in the transverse direction of the wall (10), at the hollow (27) in the prefabricated element (241), the percentage of the width of the wall (10) occupied by the self-hardening material (22) is not less than 50% and is preferably not less than 75%.

14. A wall according to claim 12 or claim 13, characterized in that the hollow housing (30) is formed by a split metal tube (32) connected to the connection means (28) by welding.

15. A wall according to any one of claims 12 to 14, characterized in that setbacks are formed in at least one of the plates (26a, 26b) of the prefabricated element (241, 242, 241').

What is claimed is:

1. A method of making a wall in soil, the method comprising at least the following succession of steps:

forming a trench in the soil and filling the trench with a self-hardening material;

supplying at least one hollow prefabricated element comprising two plates spaced apart from each other and connected together by connection means, such that the prefabricated element includes an open lower end, and a hollow space is formed between the two plates;

positioning said hollow prefabricated element in said trench filled with said self-hardening material such that the open lower end faces the trench, and such that the hollow space formed between the two plates is filled with the self-hardening material to coat the connection means through the open lower end,

whereby the solidification of the self-hardening material seals the hollow prefabricated element to the ground in place, and

wherein the filling step occurs before the positioning step.

2. A method according to claim 1, wherein, after positioning the hollow prefabricated element in the trench, and after the self-hardening material has solidified, a zone of ground defined by one of the main faces of the wall is removed, whereby the hollow prefabricated element serves to support the soil.

3. A method according to claim 1, wherein the self-hardening material is constituted by an added self-hardening slurry that takes the place of the soil excavated from the trench.

4. A method according to claim 1, wherein the self-hardening material is constituted by a mixture of added self-hardening slurry and a fraction of the soil excavated from said trench.

5. A method according to claim 1, wherein the hollow prefabricated element is vibrated while being lowered into said trench, thereby making it easier to put the prefabricated element into place.

6. A method according to claim 1, wherein two low guide walls marking the desired location for the wall are made in the soil that is to be excavated, wherein the trench is formed vertically between the two low guide walls, wherein the hollow prefabricated element includes positioning members at a top end, and wherein after inserting the hollow prefabricated element in the trench, the prefabricated element is held in position in the trench by holder means that co-operate with said positioning members and that bear transversely against the low guide walls.

7. A method according to claim 1, wherein a first hollow prefabricated element and then at least one second hollow prefabricated element are put into position in said trench, the first hollow prefabricated element including, on a side facing towards the second hollow prefabricated element, at least one hollow housing extending in the height direction of said first prefabricated element, wherein the second hollow prefabricated element includes at least one guide of profile complementary to said housing, the guide being fastened to a side facing towards said first hollow prefabricated element, and wherein, in order to connect the second hollow prefabricated element to the first hollow prefabricated element, the guide of the second hollow prefabricated element is threaded progressively into the housing of the first hollow prefabricated element until the top faces of the two hollow prefabricated elements are at substantially the same height.

8. A method according to claim 7, wherein while inserting the second hollow prefabricated element, a sealing gasket previously fastened to said second hollow prefabricated element and extending substantially along the entire height thereof, is threaded in the housing of said first hollow prefabricated element.

9. A method according to claim 1, wherein a second trench is made adjacent to the first trench.

10. A method according to claim 9, wherein prior to excavating the second trench, a temporary protection element is placed in the first trench facing the location intended for the second trench, the

protection element presenting a width and a height that are at least substantially identical to the width and the height of the hollow prefabricated element.

11. A wall made in accordance with the method according to claim 1.

12. A method of making a wall in soil, the method comprising at least the following succession of steps:

forming a trench in the soil and filling the trench with a self-hardening material;

filling said trench with a self hardening material;

supplying at least one prefabricated element comprising two plates connected together by connection means such that the prefabricated element includes an open lower end, and a hollow space is formed between the two plates; and

positioning said prefabricated element in said trench filled with said self-hardening material such that the open lower end faces the trench, and such that the hollow space between the two plates is filled with the self-hardening material to coat the connection means through the open lower end,

whereby the solidification of the self-hardening material seals the hollow prefabricated element to the ground in place, and

wherein the self-hardening material is constituted by a mixture of added self-hardening slurry and a fraction of the soil excavated from said trench, and

wherein the filling step occurs before the positioning step.