plate.

In the invention disclosed in Patent Document 1, a variable length temporary floor plate and a fixed length temporary floor plate are used. In the variable length temporary floor plate, two flat plates are combined so as to be freely slidable in a longitudinal direction in a state in which a rear end part of one flat plate and a front end part of another flat plate overlap each other. Note that each of the variable length temporary floor plate and the fixed length temporary floor plate has a flat surface serving as a molding face.

Moreover, these temporary floor plates are bridged over between a pair of top edge parts facing each other of two beam molding forms via ties installed on timbering. Accordingly, a floor face for pouring concrete that serves as a molding material is constructed.

According to this method, since the timbering, the ties, and the beam molding forms are dismantled after the concrete is solidified, the variable length temporary floor plate and the fixed length temporary floor plate can be easily separated and recovered from the concrete slab.

[0004]

Further, Patent Document 2 discloses an invention titled "Slide type Deck Plate and Slab Construction Method" that relates to a reusable and convertible deck plate capable of adjusting its length and to a slab construction method using the same.

The invention disclosed in Patent Document 2 includes two types of deck plates each having a plate main body whose top face serving as a temporary floor face and a slide holder provided on a bottom face of the plate main body. The plate main body and the slide holder are formed so as to be able to connect the two deck plates in a male and female manner.

When the concrete is placed on a top face of the deck plate, stress concentration easily occurs at a boundary between the flat part and the inclined part on the bottom faces of the first square pipe and the second square pipe. However, in the deck plate of the present invention, since stiffness at the aforementioned boundary between the flat part and the inclined part is enhanced by the bellows-shaped folding parts, breakage or deformation hardly occurs at that place.

[0013]

A third aspect of the present invention is the deck plate ~~support~~ according to the second aspect, including: an elongated member installed in an interior of the first square pipe and the second square pipe, respectively, along the longitudinal direction from vicinities of the respective one ends so as to at least go over the flat part.

In addition to an action according to the second aspect of the present invention, the deck plate with this structure has an action in which stiffness at the aforementioned boundary between the flat part and the inclined part is further enhanced by the elongated member.

[0014]

A fourth aspect of the present invention is a manufacturing method for a deck plate used as a form when a concrete slab is formed on a floor or the like of a building, including: with respect to a first square pipe and a second square pipe formed so as to be able to insert the first square pipe into an interior thereof, respectively forming V-shaped grooves with a predetermined length along a longitudinal direction thereof from one ends on a pair of facing side faces; with respect to bottom faces orthogonal to the pair of side faces of the first square pipe and the second square pipe, crushing into a flat shape and forming a flat part in a range which does not go over places where the V-shaped grooves are respectively formed along the longitudinal direction from the one

[0037]

The square timber 21 causes a through-hole 22e and a long hole (not shown) of the rotation preventing member 24 to communicate with a screw hole 22d of the holding part 20b, causes a side face 21a to be in contact with a bottom face of the holding part 20b, and causes a plane part (not shown) of the rotation preventing member 24 to be in contact with a side face 21c of the square timber 21. In this state, a bolt 22b is inserted into the long hole of the rotation preventing member 24 and the through-hole 22e from below and fastened in the screw hole 22d. Accordingly, the square timber 21 is fixed to the placing hardware 20 (see FIG. 6(b)).

The deck plate 1 is adjusted to have an appropriate length by sliding the form members 2, 3. After that, the flat part 9a is mounted on a deck plate mounting face 21b of the square timber 21 (see FIG. 6(c)).

[0038]

Concrete which has been kneaded beforehand is poured into the top faces 4a, 5a of the flat plates 4, 5 configuring the deck plate 1 and a top face of the flange 19a of the H-steel 19. When this concrete is solidified, a concrete slab 23 is formed (see FIG. 6(d)). After that, a top part of the placing hardware ~~22~~ 20 and the bolt 22a are left inside the concrete slab 23 with the solidification of the concrete.

In this way, when the concrete is placed on the top faces 4a, 5a of the flat plates 4, 5, stress concentration easily occurs at a boundary between the flat part 9a and the inclined part 9c on the bottom faces 6d, 7d of the square pipes 6, 7. However, in the deck plate 1 of the present invention, since the bellows-shaped folding parts 10a, 10b and the elongated member 8 act so as to enhance stiffness at the boundary between the flat part 9a and the inclined part 9c, breakage or deformation hardly occurs in the square pipes 6, 7.

13c: Side face

14a: Punch

~~14a~~14b: Die

14c: Core

15a: V-shaped groove

15b: V-shaped groove

16: Press mold

16a: Recessed groove

17: Punch

18: Deck plate support

19: H-steel

19a: Flange

20: Placing hardware

20a: Holding part

20b: Holding part

21: Square timber

21a: Side face

21b: Deck plate mounting face

21c: Side face

22a: Bolt

22b: Bolt

22c: Screw hole

22d: Screw hole

22e: Through-hole

23: Concrete slab