the width dimensions of the connection portion and non-connection portions are not different from each other, and there is no inconvenience during handling of the connection portion.

[0048] In addition, clamping mechanisms (not shown) which hold the wires may also be provided in the vicinity of both end portions of the wire accommodation groove **7***a* in the longitudinal direction thereof. In a case where the clamping mechanisms are provided, the wires can be held by the clamping mechanisms in a state where the wires are disposed in the wire accommodation groove **7***a*. Therefore, misalignment of the wires in the longitudinal direction thereof can be reliably limited, and thus a portion (the connection portion) in which the wires overlap and are bonded together by the solder can be formed of a predetermined length.

[0049] The pressing plate **5** is made of a thin plate material formed in a rectangular shape having a long side in the same direction as the long side of the upper surface **7***b* of the holding base **7**, and is formed to be further smaller than the upper surface **7***b* of the holding base **7**.

[0050] An upper surface **5***b* of the pressing plate **5** is formed to be flat to ensure a contact surface between the upper surface **5***b* and a lower surface **4***a* of the heating body **4** which is also formed to be flat.

[0051] In addition, the center portion of the lower surface of the pressing plate **5** is provided with a rectangular parallelepiped-shaped protrusion **5***a* having a slightly smaller width than the width of the wire accommodation groove **7***a* of the holding base **7**. The protrusion **5***a* and the wire accommodation groove **7***a* are configured to be fitted with each other without causing misalignment in position when the holding base **7** and the pressing plate **5** overlap each other.

[0052] In this embodiment, the height of the protrusion **5***a* is formed to be substantially the same as the depth of the wire accommodation groove **7***a*. However, the height is not particularly limited when the height is formed such that the wires to be connected are accommodated in the wire accommodation groove **7***a* with the solder interposed therebetween and in this state, the upper surfaces of the wires of the connection portion can be pressed.

[0053] In addition, in this embodiment, the length of the protrusion **5***a* in the longitudinal direction thereof is a length of about ⅔ of the overall length of the wire accommodation groove **7***a*, and is not particularly limited when the length is equal to or greater than the length of the portion where the wires to be connected overlap each other.

[0054] The heating body **4** disposed above the pressing plate **5** has a block shape of which the longitudinal direction is a direction coincident with the longitudinal direction of the pressing plate **5**. The heating body **4** includes a heating member and thus can heat the solder of the connection portion to its melting point or higher via the pressing plate **5**. The configuration of the heating member is not concerned as long as the heating member is a device capable of heating the lower surface **4***a* of the heating body **4** to the melting point of the solder or higher, and a current-carrying type electric heater or the like may be used. The lower surface **4***a* of the heating body **4** is formed to be flat and is configured to transfer heat of the heating body **4** by coming into surface contact with the upper surface **5***b* of the pressing plate **5**. The lower surface **4***a* of the heating body **4** is configured to cover the projection area of the protrusion **5***a* of the pressing plate **5**, and accordingly, can immediately heat the connection portion of the wires via the protrusion **5***a*.

[0055] First rods **2**A that extend in a vertical direction are respectively attached to two corners of the upper surface **5***b* of the pressing plate **5** on one long side among the four corners of the upper surface **5***b*. The pressing plate **5** is held by the pair of first rods **2**A and **2**A. The pair of first rods **2**A and **2**A are connected to a first air cylinder (first driver) **2** by penetrating therethrough, and the pressing plate **5** can be elevated in the vertical direction by the first air cylinder **2**. In addition, since the pair of first rods **2**A and **2**A are driven in synchronization with each other, the pressing plate **5** performs parallel movement in the vertical direction.

[0056] Similarly, second rods **3**A that extend in the vertical direction are respectively attached to the vicinities of both end portions of the upper surface of the heating body **4** in the longitudinal direction of the heating body **4**. The heating body **4** is held by the pair of second rods **3**A and **3**A. The pair of second rods **3**A and **3**A are connected to a second air cylinder (second driver) **3** by penetrating therethrough, and the heating body **4** can be elevated in the vertical direction by the second air cylinder **3**. In addition, since the pair of second rods **3**A and **3**A are driven in synchronization with each other, the heating body **4** performs parallel movement in the vertical direction.

[0057] A tube (not shown) through which compressed air is supplied is connected to the first air cylinder **2** and the second air cylinder **3**, and the first rods **2**A and **2**A or the second rods **3**A and **3**A are driven in the vertical direction by air pressure.

[0058] In addition, the first air cylinder **2** and the second air cylinder **3** are fixed so that the relative distances from the holding base **7** do not change, and fixing units are omitted in FIGS. **1**A and **1**B.

[0059] An air-cooling fan (cooling member) **6** is installed on the long side edge portion of the upper surface **7***b* of the holding base **7** so as to avoid the movement ranges of the pressing plate **5** and the heating body **4**. The air-cooling fan **6** is installed for the purpose of air-cooling the pressing plate **5** in a state where the pressing plate **5** is lowered to overlap the holding base **7**, and is configured to blow air toward the upper surface **5***b* of the pressing plate **5** in the lowered state.

[0060] It is preferable that the blowing opening of the air-cooling fan **6** is configured to have substantially the same length as the long side length of the upper surface **5***b* of the pressing plate **5** so as to air-cool the entirety of the upper surface **5***b* of the pressing plate **5**.

[0061] The wire splicing device **1** of this embodiment is schematically configured as described above. Hereinafter, each of the constituent parts of the wire splicing device **1** will be described in more detail.

[0062] As the material of the holding base **7** which becomes the base on which the wires are disposed, an insulating material which is made of ceramic or the like and has low thermal conductivity and high insulating properties is preferably used. Accordingly, an increase in the temperature of the holding base **7** is suppressed, and thus the solidification of the solder is not impeded, and thereby increases production efficiency.

[0063] As the ceramic that can be used as the material of the holding base **7**, for example, a machineable ceramic having high insulating properties and high machinability, such as Macor and Photoveel (registered trademarks), may be appropriately used.