

25. Each pin **5**, **15**, **25** consists of a head **5a**, a projection **5b**, an upper shaft segment **5c**, a first soft iron segment **5d**, a first permanent magnet **5e**, a second soft iron segment **5f**, a second permanent magnet **5g**, a third soft iron segment **5h**, a spacer element **5i**, a third permanent magnet **5j** and a lower shaft segment **5k**. These parts are arranged behind one another in the axial direction and are mutually connected by gluing, for example. The head **5a**, the projection **5b**, the spacer element **5i** as well as the upper and the lower shaft segment **5c** and **5k** are made from non-magnetic material, e.g. plastic or non-ferrous heavy metal. The parts below the projection **5b** are additionally enclosed by a sleeve **5l** which is also made from plastic or non-ferrous heavy metal. As is shown in FIG. 2 by arrows, the first permanent magnet **5e** and the third permanent magnet **5j** are magnetised in the same direction, whereas the second permanent magnet **5g** is polarised in the opposite direction.

The pins **5**, **15** and **25** are movable in the axial direction between two end positions. In the upper end position the projection **5b** rests on the lower side of the perforated plate **4** and a certain initial tension is produced by the magnetic force. In an alternative embodiment it may be provided, however, that a certain gap exists between the projection **5b** and the perforated plate **4** in the upper end position, so that the pin **5**, **15**, **25** can move freely around its end position to a certain extent without leaving it. The soft magnetic perforated plate **7** is made up of a magnetisable material such as soft iron. Two annular recesses **7a** and **7b** are provided in the zone of each drilling of the perforated plate **7**, which recesses are delimited by projections **7c**, **7d** and **7e**. The distance between the projections **7c** and **7d** as well as **7d** and **7e** in the axial direction substantially corresponds to the distance between the first soft iron segment **5d** and the second soft iron segment **5f** and between the second soft iron segment **5f** and the third soft iron segment **5h**. The amount of possible axial displacement of the pins **5**, **15** and **25** is adjusted in such a way that in the upper end position, which is represented in FIG. 2 by the pins **5** and **15**, two magnetic circulations are formed. The first permanent magnet **5e** forms a magnetic circulation around the annular recess **7a** and the second permanent magnet **5g** forms a magnetic circulation around the second recess **7b**. In the lower end position, which is represented in FIG. 2 by pin **25**, the first permanent magnet **5e** forms a magnetic circulation around the second recess **7b**.

The soft iron segments **5d** and **5f** are situated approximately at the same level and opposite to the projections **7c**, **7d** and **7e** in the two end positions. Any movement of the pin in the axial direction increases the magnetic gap between these parts and is therefore only possible against the resistance of the magnetic forces. That is why the pins **5**, **15** and **25** are kept in these positions in a stable manner.

An electromagnet **6** is provided below the soft magnetic perforated plate **7** in the zone of each pin **5**, **15**, **25**, as a result of whose activation the third permanent magnet **5j** can be attracted or repelled. It is therefore possible, by a respective control of these electromagnets **6**, to bring the pins **5**, **15**, **25** into the respective other position.

FIG. 3 shows a simplified embodiment of the invention. Permanent magnets **8** are attached at the lower side of the pins **35** and **45**. A soft magnetic perforated plate **17** limits the movement of the pin in the upper end position of pin **35**. As a result of the respective force of attraction this position is stable. The permanent magnet **8** is attracted and tightly held by a soft iron plate **27** in the lower end position of pin **45**. An electromagnet **16** is provided below the soft iron plate **27** for controlling the pin **35**, **45**.

FIG. 4 is an extension of the embodiment of FIG. 3, in which the module, consisting of the pins **35**, **45** plus permanent magnet **8** of perforated plate **4** and the soft magnetic perforated plate **17**, is movably arranged in a direction parallel to the surface of the perforated plate **4**. This movement can be translational or rotational. A cover plate **9** is provided above the pins **35**, **45** which is provided with a reading window **9a** through which the position of a part of the pins **35**, **45** can be scanned. The "non visible" pins below the cover plate **9** are always in their upper end position in this embodiment. Conversely, the device can also be arranged in such a way that the pins are brought to their lower end position after leaving the reading window. Before a pin reaches the reading window **9a**, it is pulled downwardly by electromagnet **16**, if necessary. In case of a movement of the pins in the direction of arrow **A** this means that the pin **135** is optionally to be pulled downwardly by the electromagnet **16**, and retained in a downward position by soft iron plate **37**. After leaving the display window **9a** the pin **235**, if it were in the lower end position, could be brought back again to its upper end position by the soft iron plate of electromagnet **116**. This, however, is not necessary because a wedge-like ramp **10** is provided which automatically brings the pins which are situated in their lower end position into the upper end position. The electromagnet **116** is relevant, however, when the perforated plate **4** is to be moved in the opposite direction, against the arrow **A**. As a result of this embodiment it is possible to actuate a plurality of pins with only one or two electromagnets **16**, **116**.

FIG. 5 shows an embodiment which represents a modification of the embodiment of FIG. 2, but which is substantially simplified. The pin **55** consists of a tip **55a** made from plastic, an upper soft iron segment **55b**, a permanent magnet **55c**, a lower soft iron segment **55d** and a shaft **55e**. Only one single perforated plate **57** is provided whose surface simultaneously forms the top cover of the device. The upper soft iron segment **55b** is arranged in the upper end position opposite to a projection **57a** of the perforated plate **57**. In the lower end position the lower soft iron segment **55d** is arranged opposite to a projection **57d** of the perforated plate **57**. An electromagnet (not shown) for actuating the pins **55**, **65** is provided below the perforated plate **57**. The recesses **57b** and **57c** are used for producing the magnetic circulations such as in the embodiment of FIG. 2.

FIG. 6 shows a further embodiment wherein the pins **65** are provided with at least one magnetic segment **61**. Furthermore, magnetic plates **62** and **63** are provided which cooperate with the magnetic segment **61**. In this embodiment the magnetic segment **61** can be permanently magnetic and the magnetic plates **62** and **63** can be soft magnetic or vice-versa. It is also possible that all these parts can be permanent magnets. In this case it is important that the forces acting in the end positions are forces of attraction. The direction of magnetisation can be transverse to the axial direction of the pins **65**.

FIG. 7 shows a particularly ergonomic embodiment of the invention. The actuation of the pins **75** (set) and **85** (not set) can occur in accordance with one of the modifications as described above. A support surface **70** is provided on the upper side of the device for the hand of the user, with a cover **79** being provided on its circumference. This cover **79** is provided with a display window **79a** in the form of a projection of an annulus. Below the cover **79** a perforated plate **4** is rotatably arranged. Pins **75**, **85** project through its drillings. The condition of the pins **75**, **85** can be scanned in the area of the display window **79a**. Otherwise they are covered by the cover **79**. In this manner the information to