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(54) **WEAVING MACHINE AS WELL AS A METHOD FOR FORMING A FABRIC BY MEANS OF SUCH A WEAVING MACHINE.**

WEBMASCHINE UND VERFAHREN ZUR HERSTELLUNG EINES GEWEBES MITTELS EINER SOLCHEN WEBMASCHINE

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Description

[0001] The present invention concerns a weaving machine, in particular what is called a multi-phase weaving machine, as well as a method for forming a fabric by means of such a weaving machine.

[0002] In particular, the invention concerns a multi-phase weaving machine of the type comprising a rotating weaving rotor upon which are provided weaving shed-forming elements for forming several weaving sheds, as well as position selection means which make it possible to place the warp threads of a fabric to be formed on the weaving shed-forming elements provided on the perimeter of the weaving rotor in such a manner that several weaving sheds are formed, and means to insert weft threads in the formed weaving sheds, which are systematically beaten up against the already formed fabric during the weaving by means of weaving combs which are also provided on the weaving rotor.

[0003] Examples of such a weaving machine are described among others in US patents Nos. 4.290.458, 4.291.729 and 5.174.341.

[0004] With the known embodiments of multi-phase weaving machines, the above-mentioned position selection means which have to make sure that the warp threads are placed in the topmost or bottommost position at the weaving shed-forming elements consist of bars extending over the entire width of the weaving machine and of the fabric in which are provided thread guide openings, such that all warp threads passing through the thread guide openings of one and the same bar are always moved synchronously. This is disadvantageous in that only fabrics with a relatively simple weave can be realised. Another disadvantage consists in that no separate selvedge weave can be formed on the fabric.

[0005] The present invention aims a weaving machine, in particular a multi-phase weaving machine that is optimised and with which, in preferred applications, one or several of the above-mentioned disadvantages can be excluded.

[0006] To this aim, the invention in the first place concerns a weaving machine, in particular a multi-phase weaving machine of the above-mentioned type, characterised in that the above-mentioned position selection means comprise one or several position selection elements that can be individually activated. By making use, according to the present invention, of position selection elements that can be individually activated, the positions of the warp threads which are placed on the weaving rotor by means of such position selection elements can be selected individually, in other words separately per warp thread, as a result of which larger combinations of selection possibilities are created.

[0007] According to a preferred embodiment, at least all the position selection means, required for selecting the position of the warp threads of the actual fabric, i.e. all the warp threads, possibly to the exception of those that are used to form a selvedge and/or those that are

used as catch threads, consist of individual position selection elements. Thus, by means of the individual position selection elements, provided there is a suitable control, rather complicated weaves can be obtained, even with different weave patterns over the width of the fabric, as opposed to the known embodiments with which only simple weaves can be realised.

[0008] According to another embodiment, the weaving machine comprises means for forming a selvedge on a fabric, and at least all the position selection means required to select the positions of the warp threads of which this selvedge is formed, are made as individual position selection elements. Often, the weave that is used for forming a selvedge is rather complicated, and by making use of individual position selection elements at least to form such a selvedge, they can be controlled independently as a function of the selvedge weave to be formed.

[0009] According to a special embodiment, the position selection means consist of a combination of a number of individual position selection elements on the one hand, and of position selection elements working together in conjunction with several warp threads on the other hand.

[0010] It is clear that the individual position selection elements are preferably coupled to a control which makes it possible for these individual position selection elements to be also controlled individually, although it is not excluded to have several controls carried out together via one and the same control line.

[0011] The individual position selection elements preferably consist of thread guides arranged along the weaving rotor that can be moved laterally between at least two positions. Such position selection elements that are arranged next to the weaving rotor can be easily controlled separately, as they do not rotate along with the weaving rotor.

[0012] According to a practical embodiment, the individual position selection elements each have their own drive elements, provided at the position selection element, integrated in it as if it were. This allows for a simple construction, so that only control lines of a suitable control unit still have to be provided towards the respective drive elements.

[0013] The invention also concerns a method for forming a fabric, whereby warp threads are guided over a rotating weaving rotor, these warp threads are placed on weaving shed-forming elements provided on the perimeter of the weaving rotor by means of position selection means in such a manner that several weaving sheds are formed on the weaving rotor, and weft threads are inserted in the respective weaving sheds, characterised in that a position selection is carried out for one or several of the warp threads via an individual position selection element per warp thread concerned, whereby these position selection elements are controlled individually as a function of the weave to be formed.

[0014] In order to better explain the characteristics of the invention, the following preferred embodiment is de-

scribed as an example only without being limitative in any way, with reference to the accompanying drawings, in which:

figure 1 schematically represents a side view of a weaving machine according to the invention;
figure 2 schematically shows a view in perspective according to arrow F2 in figure 1;
figure 3 shows the part indicated with F2 in figure 2 to a larger scale;
figure 4 shows a view according to arrow F4 in figure 3;
figure 5 shows a view according to arrow F5 in figure 4 for a restricted number of parts;
figure 6 shows a view similar to that of figure 5, but for another position.

[0015] As is represented in figures 1 and 2, the invention concerns a weaving machine 1, in particular what is called a multi-phase weaving machine of the type which makes use of a weaving rotor 2.

[0016] This weaving machine 1 mainly comprises, apart from the weaving rotor 2, a warp beam 3 for supplying warp threads 4; position selection means 5 to place the warp threads 4, as will be described hereafter, in a suitable manner on the weaving rotor 2; means 6 for the supply and insertion of weft threads 7; and a cloth beam 8 for the take-up of the formed fabric 9.

[0017] The weaving rotor 2 mainly consists of a cylindrical element 10 which can be driven in a rotating manner via a drive 11 according to the indicated sense of rotation R. On this weaving rotor 2 are provided weaving shed-forming elements 12 on the one hand and beat up elements 13 on the other hand, mainly in the form of combs or lamellas arranged in rows at short distances next to one another. It should be noted hereby that, for clarity's sake, only a restricted number of these lamellas are represented in the figures, at rather large distances from one another, and that, in reality, these lamellas can stand closer to one another, and also larger numbers will be placed next to one another.

[0018] The weaving shed-forming elements 12 consist of lamellas which are provided with seatings 14 on their top sides in which warp threads 4 can be received, so that they are supported at a distance above the cylindrical surface 15 of the weaving rotor 2.

[0019] The beat up elements 13 consist of rows of combs arranged between the rows of weaving shed-forming elements 12, whereby these combs have such a shape that they rotate with their free ends at a short distance along a fixed fabric support 16.

[0020] The above-mentioned position selection means 5 comprise, as can be seen in detail in figures 3 and 4, position selection elements 17 with thread guides 18 for the respective warp threads 4, whereby these thread guides 18, as represented in figures 5 and 6, can be laterally moved between at least two positions, P1 and P2 respectively, such that every warp thread 4 con-

cerned can be presented to the weaving rotor 2 in the surface of rotation 19 of a weaving shed-forming element 12, can be presented to the weaving rotor 2 next to such a weaving-shed forming element 12 respectively, with as a result that several weaving sheds 20 are formed on the perimeter of the weaving rotor 2.

[0021] The means 6 for supplying weft threads 7 mainly consist of a yarn accumulation device 21 on the one hand which, in the given example, consists of a bobbin stand with weft thread bobbins 22-23-24-25, and of a yarn insertion system 26 on the other hand working in conjunction with the weaving rotor 2 via which several weft yarns, in the given example four, 27-28-29-30 respectively, can be inserted in the formed weaving sheds 20.

[0022] Yarn insertion systems for inserting weft yarns in the weaving sheds of a weaving rotor are known as such, and hence only the main principles of the above-mentioned yarn insertion system 26 will be described hereafter.

[0023] As is schematically represented in figure 2, this yarn insertion system 26 consists of a fixed part 31 on the one hand and of a part 32 rotating along with the weaving rotor 2 on the other hand. In the fixed part 31 are provided yarn feed-through ducts, in this case four, 33-34-35-36 respectively, for the respective weft yarns 27-28-29-30, with fixed entries 37-38-39-40. Their outlets open laterally into the part 32 which rotates along with the weaving rotor 2. In this part 32 which rotates along are formed passages which, when they are situated opposite to the outlets of the yarn feed-through ducts, form outlets for the weft threads, in particular the indicated outlets 41-42-43-44, which open into the extension of the weaving sheds 20. Further, the necessary blow systems for conveying the weft yarns 27-28-29-30 through the yarn feed-through ducts 33-34-35-36 are integrated in the yarn insertion system 26, as well as cutting means for cutting the weft threads 7 formed out of the weft yarns 27-28-29-30 and inserted in the weaving sheds 20. These blow systems and cutting means are not represented for clarity's sake.

[0024] As is represented in figures 1 to 4, air conduction means can be provided on the weaving rotor 2 to provide for an interference-free conveyance of the weft threads 7 through the weaving sheds 20, in particular in the shape of conveyor ducts 45 formed by recesses in the weaving shed-forming elements 12. Moreover, several relay nozzles 46 are preferably provided, spread over the length of the weaving rotor 2, which promote the conveyance of the weft threads 7 through the conveyor ducts 45. These relay nozzles 46, which for clarity's sake are only represented in figure 1, are switched on and off by means of a valve system which is built-in in the weaving rotor 2, for example by means of connecting ducts 47 through the weaving rotor 2, schematically indicated in figure 1, which, as a result of the rotation of the weaving rotor 2, are positioned opposite to compressed air ducts 28 provided in a fixed, central part inside the weaving

rotor 2.

[0025] The present invention is special in that, as represented in the figures, for the position selection means 5 for one or several warp threads 4, and in the given example for all the warp threads 4, use is made of position selection elements 17 which can be activated individually, in other words which also have thread guides 18 which can be individually moved between the above-mentioned positions P1 and P2.

[0026] In the given example, these individual position selection elements 17 are arranged in the shape of two rows along the weaving rotor 2.

[0027] These individual position selection elements 17 each have their own drive element 49. The respective drive elements 49 are coupled to a control unit 51 via control lines 50 which makes it possible to excite them individually. For clarity's sake, only a limited number of these control lines 50 are represented in the figures.

[0028] In the example, the individual position selection elements 17 consist, as is represented in greater detail in figures 5 and 6, of a bendable base structure 52, attached to a fixed support 54 on one far end 53 and carrying the thread guide 18 concerned, in this case in the shape of a thread eye, on its other far end 55. The drive element 49 consists of an actuator, in particular an electrically controllable actuator, with which the base structure 52 can be bent. The actuator can be of any nature whatsoever, but use will be preferably made of a piezoelectric or electromagnetic actuator, or an actuator that works by means of a bimetal.

[0029] Actuators which can provide for a minor movement, take up little space and yet can be easily controlled are sufficiently known as such, for example from WO 99/62088 and WO 00/63938. Hence, the precise construction thereof will not be described in detail. It should be noted, however, that the construction of the position selection elements 17 and of their drive elements 49 can be of any nature whatsoever according to the invention, and that the essence of the invention consists in that the drive can take place individually.

[0030] The working of the weaving machine 1, as well as the method followed thereby to form a fabric, are mainly as described hereafter.

[0031] Warp threads 4 are unspooled from the warp beam 3 and are placed on the rotating weaving rotor 2 along the individual position selection elements 17. By hereby putting, as represented in figures 5 or 6, the respective thread guides 18 in a position P1 or P2, the warp threads 4 concerned can be presented to the weaving rotor 2 in a rotation surface 19 of a weaving shed-forming element 12, or next to this rotation surface 19 respectively. The warp threads 4 which are presented to the weaving rotor 2 in this manner, as represented in figure 5, end up in the seatings 14 of the weaving shed-forming elements 12 as a result of the rotation of the weaving rotor 2, i.e. at a distance above the cylindrical surface 15 of the weaving rotor 2, whereas the warp threads 4 which are presented to the weaving rotor 2 in this manner, as

represented in figure 6, end up on the surface 15.

[0032] Thus, due to the rotation of the weaving rotor 2 and the suitable control of the position selection elements 17, several weaving sheds 20 are simultaneously formed on the perimeter of the weaving rotor 2, whereby the above-mentioned conveyor ducts 45 extend exactly through these weaving sheds 20.

[0033] When the weaving rotor 2 is situated in a position as represented in figures 1 and 2, lengths of weft yarn 27-28-29-30 are inserted in the weaving sheds 20 via the outlets 41-42-43-44 which are situated in front of the weaving sheds 20 at that time, so as to form weft threads 7. This insertion takes place by means of air streams created in the yarn feed-through ducts 33-34-35-36, as well as with the help of the air stream created in the thread conveyor ducts 45 by means of the relay nozzles 46. It is clear that these weft threads 7 are cut off in a suitable manner by means of cutting means which are not represented in the figures.

[0034] Thanks to the rotation of the weaving rotor 2, which moves considerably faster than the warp threads 4 at its perimeter, the inserted weft threads 7 are pushed towards the cloth line 56 situated at the height of the fabric support 16 by means of the beat up elements 13, and they are also beaten up against it. It is clear that the weft threads 7 are automatically released laterally from the thread conveyor ducts 45.

[0035] Finally, the formed fabric 9 is taken up on the cloth beam 8 or carried off in another manner.

[0036] By controlling the position selection elements 17 individually, it is clear that a large number of weave patterns can be realised, in contrast with the known embodiments of multi-phase weaving machines whereby the warp threads are moved by means of thread guides formed in bars.

[0037] Although, in the figures, all the position selection elements 17 are represented as individual elements, it is clear that according to a variant of the invention also just a limited number of warp threads 4 can be controlled by means of individual position selection elements 17, while the other warp threads 4 are controlled by means of position selection elements which simultaneously control several warp threads 4. Thus, it is possible, for example, in the case of fabrics with a special selvedge weave, to make use of individual position selection elements 17 on the place of the selvedges only, whereas for the normal fabric, use is made of common position selection elements for several warp threads 4. Nor is it excluded to control for example certain series of warp threads 4 by means of common position selection elements, for example by means of traditional bars, whereas other series are controlled via individual position selection elements 17 according to the invention.

[0038] It should be noted that by 'position selection elements that can be activated individually' is meant that they have a drive element of their own. They must not necessarily be controlled individually, however, and thus it is possible that several drive elements of these position

selection elements 17 that can be individually controlled are connected to one and the same control line 50.

[0039] Of course, the position selection elements 17 can preferably all be controlled individually, such that they can be operated independently from one another as of the control unit.

[0040] It should also be noted that the position selection elements that can be activated individually must not necessarily be formed of elements 17 which are arranged next to the weaving rotor 2, but can also be formed of elements on the weaving rotor 2 itself. In this case, use can be made of fixed thread guides next to the weaving rotor 2 instead of moveable thread guides 18, whereas for example the weaving shed-forming elements 12 can be laterally bent, such that by either or not bending them can be obtained that the warp threads 4 lay themselves on these weaving shed-forming elements 12, next to them respectively. The weaving shed-forming elements 12 in this case function as position selection elements.

[0041] Finally, it should be noted that, for clarity's sake, the weaving rotor 2 is represented excessively large in relation to the warp beam 3 and the cloth beam 8 in figure 1. In reality, the weaving rotor 2 has a relatively small diameter in comparison to the diameters of the warp beam 3 and the cloth beam 8. Further, it is clear that the mutual arrangement of the weaving rotor 2, the warp beam 3, the cloth beam 8 and the position selection elements 17 can be different from the arrangement in the figures. Thus, for example, the warp threads 4 can also be supplied to the weaving rotor 2 in a predominantly vertical plane, while the fabric is carried off for example vertically downward.

[0042] The present invention is by no means limited to the above-described embodiment represented in the accompanying drawings; on the contrary, such a weaving machine and method can be made in all sorts of variants while still remaining within the scope of the claims.

Claims

1. Weaving machine, of the type comprising a rotating weaving rotor (2) upon which are provided weaving shed-forming elements (12) for forming several weaving sheds (20), as well as position selection means (5) which make it possible to place the warp threads (4) of a fabric (9) to be formed on the weaving shed-forming elements (12) provided on the perimeter of the weaving rotor (2) in such a manner that several weaving sheds (20) are formed, and means (6) to insert weft threads (7) in the formed weaving sheds (20), **characterised in that** said position selection means (5) comprise one or several position selection elements (17) that can be individually activated.
2. Weaving machine according to claim 1, **characterised in that** at least all the position selection means (5) required to select the position of the warp threads (4) of the actual fabric (9) consist of individual position selection elements (17).
3. Weaving machine according to claim 1 or 2, **characterised in that** it comprises means to form a selvedge on a fabric (9), and **in that** at least all the position selection means (5) required to select the positions of the warp threads (4) from which said selvedge is formed are carried out as individual position selection elements (17).
4. Weaving machine according to any of the preceding claims, **characterised in that** the above-mentioned position selection means (5) consist of a number of individual position selection elements (17) on the one hand, as well as position selection elements (17) co-operating in common with several warp threads (4) on the other hand.
5. Weaving machine according to any of the preceding claims, **characterised in that** the individual position selection elements (17) are coupled to a control which makes it possible for these individual position selection elements (17) to be also controlled individually.
6. Weaving machine according to any of the preceding claims, **characterised in that** the individual position selection elements (17) consist of thread guides (18) arranged along the weaving rotor (2) which can be moved laterally between at least two positions (P1-P2).
7. Weaving machine according to any of the preceding claims, **characterised in that** the individual position selection elements (17) have a drive element (49) of their own.
8. Weaving machine according to any of the preceding claims, **characterised in that** the individual position selection elements (17) consist of elements which can be bent between at least two positions (P1-P2) by means of a drive element (49) provided to this end.
9. Weaving machine according to claim 7 or 8, **characterised in that** it comprises drive elements (49) for the position selection elements (17) which consist of piezo-electric actuators and/or elements which can be excited according to the bimetal principle and/or elements which can be excited in an electro-magnetic manner.
10. Method to form a fabric (9), in particular to form a fabric (9) on a weaving machine according to any of claims 1 to 9, whereby warp threads (4) are guided over a rotating weaving rotor (2), these warp threads (4) are placed on weaving shed-forming elements

(12) provided on the perimeter of the weaving rotor (2) by means of position selection means (5) in such a manner that several weaving sheds (20) are formed on the weaving rotor (2), and weft threads (7) are inserted in the respective weaving sheds (20), **characterised in that** a position selection is carried out for one or several of the warp threads (4) via an individual position selection element (17) per warp thread (4) concerned, whereby these position selection elements (17) are controlled individually as a function of the weave to be formed.

Patentansprüche

1. Webmaschine des Typs, der einen rotierenden Webrotor (2) umfasst, worauf webfachbildende Elemente (12) zum Bilden mehrerer Webfächer (20), sowie Positionswahlmittel (5) vorgesehen sind, die es möglich machen, die Kettfäden (4) eines zu formenden Gewebes (9) derart auf den webfachbildenden Elementen (12), die auf dem Außenumfang des Webrotors (2) vorgesehen sind, zu platzieren, dass mehrere Webfächer (20) gebildet werden, und Mittel (6) zum Einbringen von Schussfäden (7) in die gebildeten Webfächer (20), **dadurch gekennzeichnet, dass** besagte Positionswahlmittel (5) ein oder mehrere Positionswahlelemente (17) umfassen, die individuell aktiviert werden können.
2. Webmaschine gemäß Anspruch 1, **dadurch gekennzeichnet, dass** zumindest alle Positionswahlmittel (5), die erforderlich sind, um die Position der Kettfäden (4) des eigentlichen Gewebes (9) zu wählen, aus individuellen Positionswahlmitteln (17) bestehen.
3. Webmaschine gemäß Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** sie Mittel zur Bildung einer Webkante an einem Gewebe (9) umfasst, und **dadurch**, dass zumindest alle zur Auswahl der Positionen der Kettfäden (4), woraus besagte Webkante gebildet wird, erforderlichen Positionswahlmittel (5) als individuelle Positionswahlmittel (17) ausgeführt sind.
4. Webmaschine gemäß einem der vorgenannten Ansprüche, **dadurch gekennzeichnet, dass** die obengenannten Positionswahlmittel (5) aus einer Anzahl individueller Positionswahlelemente (17) einerseits, sowie Positionswahlelementen (17), die gemeinsam mit mehreren Kettfäden (4) zusammenwirken, andererseits bestehen.
5. Webmaschine gemäß einem der vorgenannten Ansprüche, **dadurch gekennzeichnet, dass** die individuellen Positionswahlelemente (17) an eine Steuerung gekoppelt sind, die es ermöglicht, dass

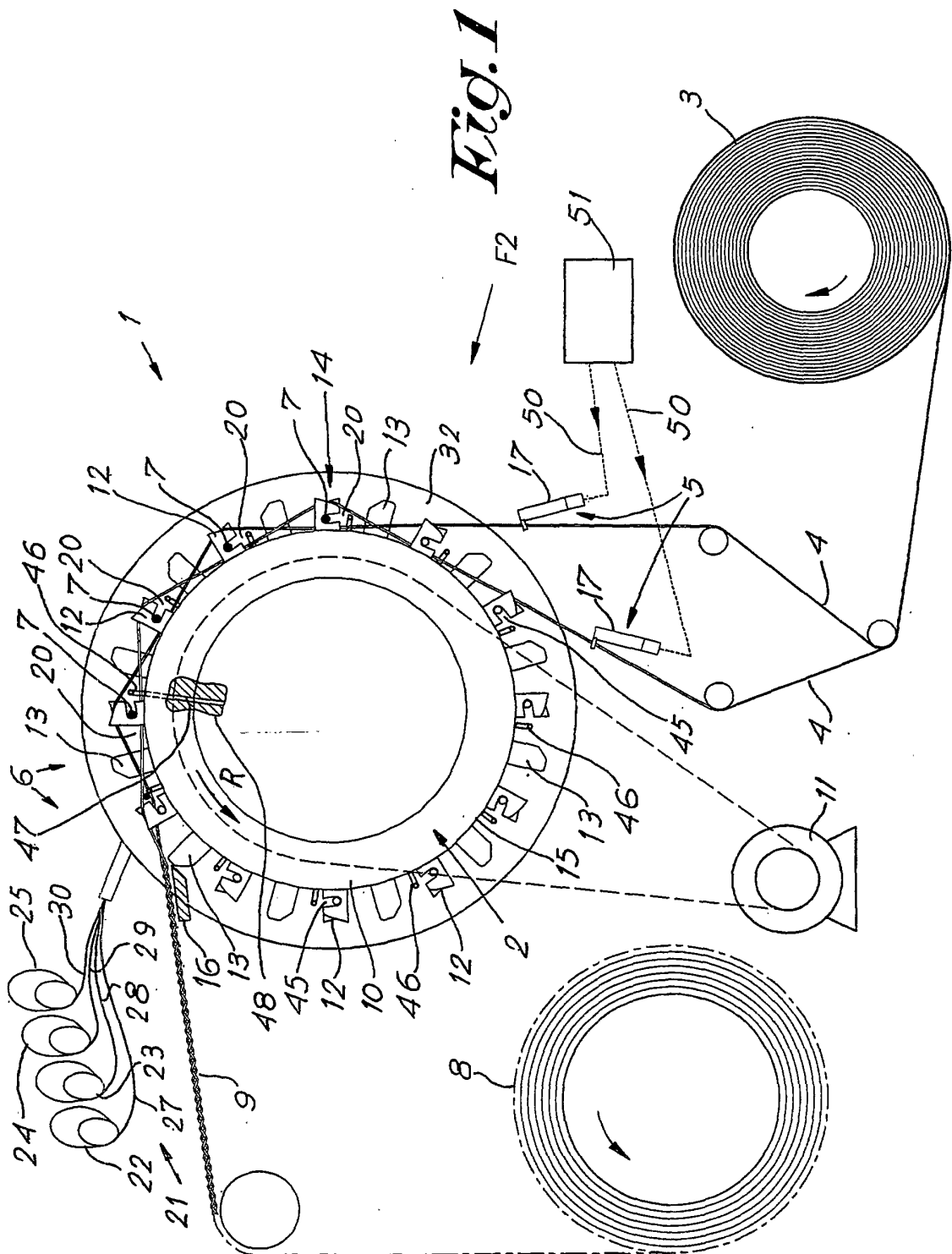
diese individuellen Positionswahlelemente (17) auch individuell gesteuert werden.

6. Webmaschine gemäß einem der vorgenannten Ansprüche, **dadurch gekennzeichnet, dass** die individuellen Positionswahlelemente (17) aus entlang dem Webrotor (2) angeordneten Fadenführungen (18) bestehen, die seitwärts zwischen zumindest zwei Positionen (P1-P2) bewegt werden können.
7. Webmaschine gemäß einem der vorgenannten Ansprüche, **dadurch gekennzeichnet, dass** die individuellen Positionswahlelemente (17) ein eigenes Antriebselement (49) haben.
8. Webmaschine gemäß einem der vorgenannten Ansprüche, **dadurch gekennzeichnet, dass** die individuellen Positionswahlelemente (17) aus Elementen bestehen, die, mittels eines zu diesem Zweck vorgesehenen Antriebselements (49), zwischen zumindest zwei Positionen (P1-P2) gebogen werden können.
9. Webmaschine gemäß Anspruch 7 oder 8, **dadurch gekennzeichnet, dass** sie Antriebselemente (49) für die Positionswahlelemente (17) umfasst, die aus piezoelektrischen Betätigungselementen und/oder Elementen bestehen, die gemäß dem Bimetallprinzip angeregt werden können, und/oder Elementen, die auf elektromagnetische Weise angeregt werden können.
10. Verfahren zum Formen eines Gewebes (9), insbesondere zum Formen eines Gewebes (9) auf einer Webmaschine gemäß einem der Ansprüche 1 bis 9, wobei Kettfäden (4) über einen rotierenden Webrotor (2) geführt werden, diese Kettfäden (4) mittels Positionswahlmitteln (5) auf webfachbildenden Elementen (12), die auf dem Außenumfang des Webrotors (2) vorgesehen sind, platziert werden, derart, dass mehrere Webfächer (20) an dem Webrotor (2) gebildet werden, und Schussfäden (7) in die jeweiligen Webfächer (20) eingebracht werden, **dadurch gekennzeichnet, dass** eine Positionswahl für einen oder mehrere der Kettfäden (4) mittels eines individuellen Positionswahlelements (17) pro betreffenden Kettfaden (4) durchgeführt wird, wobei diese Positionswahlelemente (17) individuell in Funktion des zu formenden Gewebes gesteuert werden.

Revendications

1. Métier à tisser, du type comprenant un rotor de tissage (2) rotatif, sur lequel sont prévus des éléments formateur de foules de tissage (12) pour former une pluralité de foules de tissage (20), ainsi que des moyens de sélection de position (5), permettant de

- placer les fils de chaîne (4), d'un tissu (9) à former, sur les éléments de tissage formateur de foules (12) prévus sur le périmètre du rotor de tissage (2), de telle manière qu'une pluralité de foules de tissage (20) soit formée, et des moyens (6) pour insérer des fils de trame (7) dans les foules de tissage (20) ayant été formées, **caractérisé en ce que** lesdits moyens de sélection de position (5) comprennent un ou plusieurs élément(s) de sélection de position (17) pouvant être activé(s) individuellement.
2. Métier à tisser selon la revendication 1, **caractérisé en ce qu'**au moins la totalité des moyens de sélection de position (5), nécessaires pour sélectionner la position des fils de chaîne (4) du tissu (9) réel, sont formés d'éléments de sélection de position (17) individuels.
3. Métier à tisser selon la revendication 1 ou 2, **caractérisé en ce qu'**il comprend des moyens pour former une lisière sur un tissu (9), et **en ce qu'**au moins la totalité des moyens de sélection de position (5), nécessaires pour sélectionner les positions des fils de chaîne (4) d'où ladite lisière est formée, sont réalisés sous forme éléments de sélection de position (17) individuels.
4. Métier à tisser selon l'une quelconque des revendications précédentes, **caractérisé en ce que** les moyens de sélection de position (5) mentionnés ci-dessus sont composés d'une pluralité d'éléments de sélection de position (17) individuels, d'une part, ainsi que d'éléments de sélection de position (17), coopérant en commun avec une pluralité de fils de chaîne (4), d'autre part.
5. Métier à tisser selon l'une quelconque des revendications précédentes, **caractérisé en ce que** les éléments de sélection de position (17) individuels sont couplés à une commande, permettant à ces éléments de sélection de position (17) individuels d'être également commandés individuellement.
6. Métier à tisser selon l'une quelconque des revendications précédentes, **caractérisé en ce que** les éléments de sélection de position (17) individuels sont formés de guide-fils (18) agencés le long du rotor de tissage (2), pouvant être déplacés latéralement entre au moins deux positions (P1-P2).
7. Métier à tisser selon l'une quelconque des revendications précédentes, **caractérisé en ce que** les éléments de sélection de position (17) individuels ont en propre un élément d'entraînement (49).
8. Métier à tisser selon l'une quelconque des revendications précédentes, **caractérisé en ce que** les éléments de sélection de position (17) individuels sont
- formés d'éléments, pouvant être fléchis entre au moins deux positions (P1-P2), au moyen d'un élément d'entraînement (49) prévu à cette fin.
9. Métier à tisser selon la revendication 7 ou 8, **caractérisé en ce qu'**il comprend, pour les éléments de sélection de position (17), des éléments d'entraînement (49) constitués d'actionneurs piézoélectriques et/ou d'éléments pouvant être excités selon le principe d'un élément bimétallique et/ou d'éléments pouvant être excités de manière électromagnétique.
10. Procédé pour fabriquer un tissu (9), en particulier pour former un tissu (9) sur un métier à tisser selon l'une quelconque des revendications 1 à 9, dans lequel des fils de chaîne (4) sont guidés sur un rotor de tissage (2) rotatif, ces fils de chaîne (4) sont placés sur des éléments formateur de foules de tissage (12) prévus sur le périmètre du rotor de tissage (2), à l'aide de moyens de sélection de position (5), de manière qu'une pluralité de foules de tissage (20) soit formée sur le rotor de tissage (2), et des fils de trame (7) étant insérés dans les foules de tissage (20) respectives, **caractérisé en ce qu'**une sélection de position est effectuée pour un ou plusieurs des fils de chaîne (4), via un élément de sélection de position (17) individuel par fil de chaîne (4) concerné, de manière que ces éléments de sélection de position (17) soient commandés individuellement, en fonction du tissage à fabriquer.



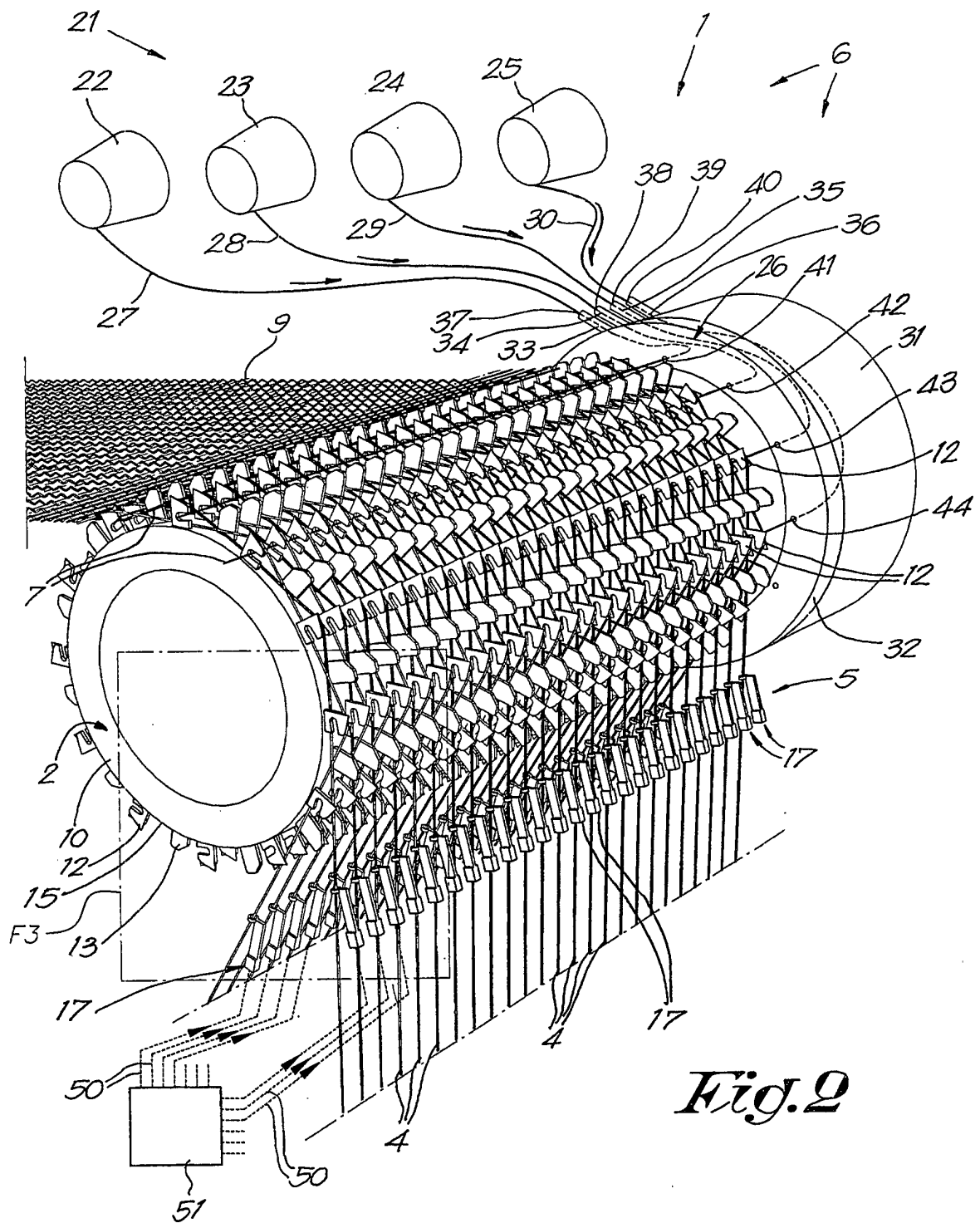
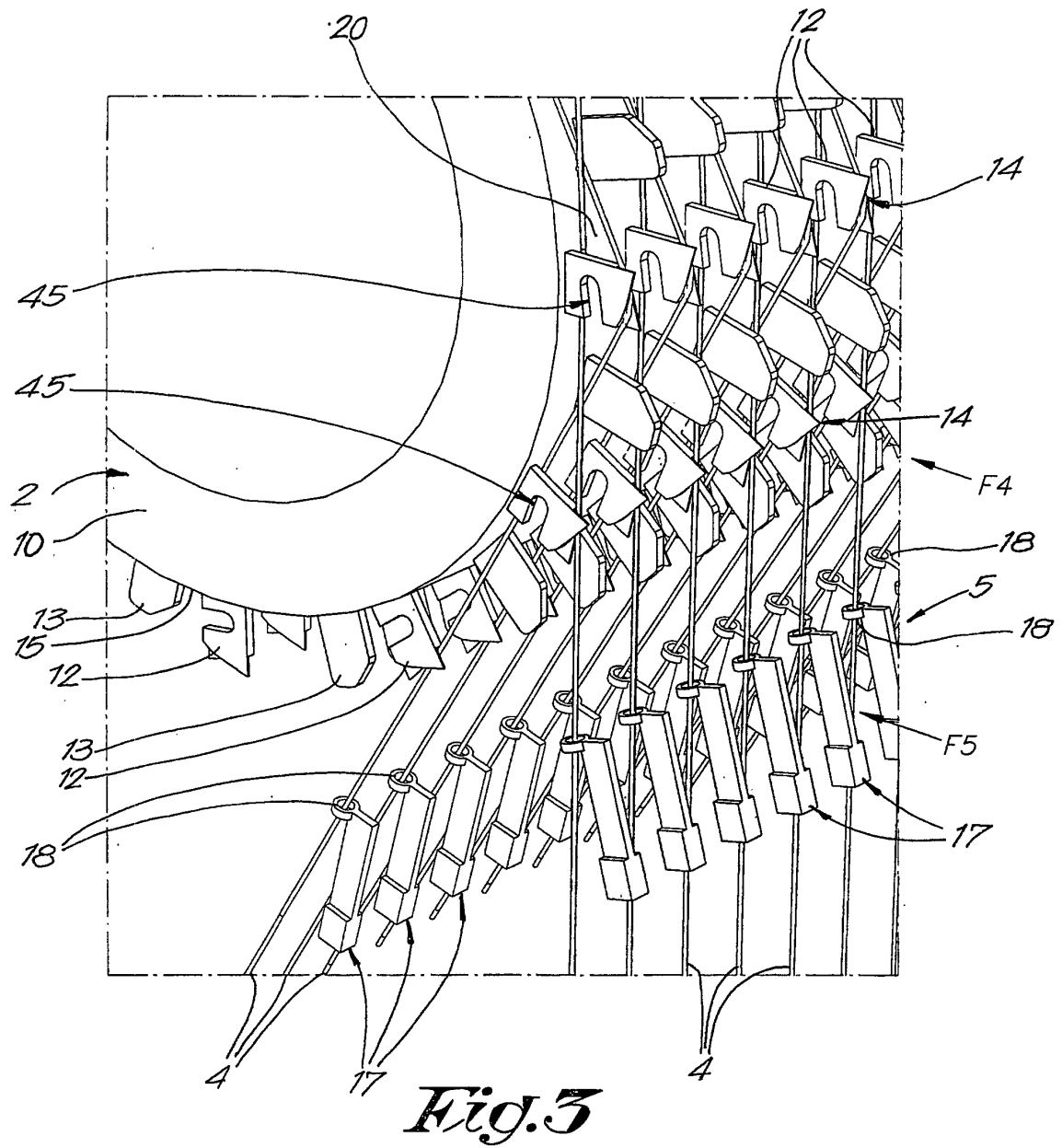


Fig. 2



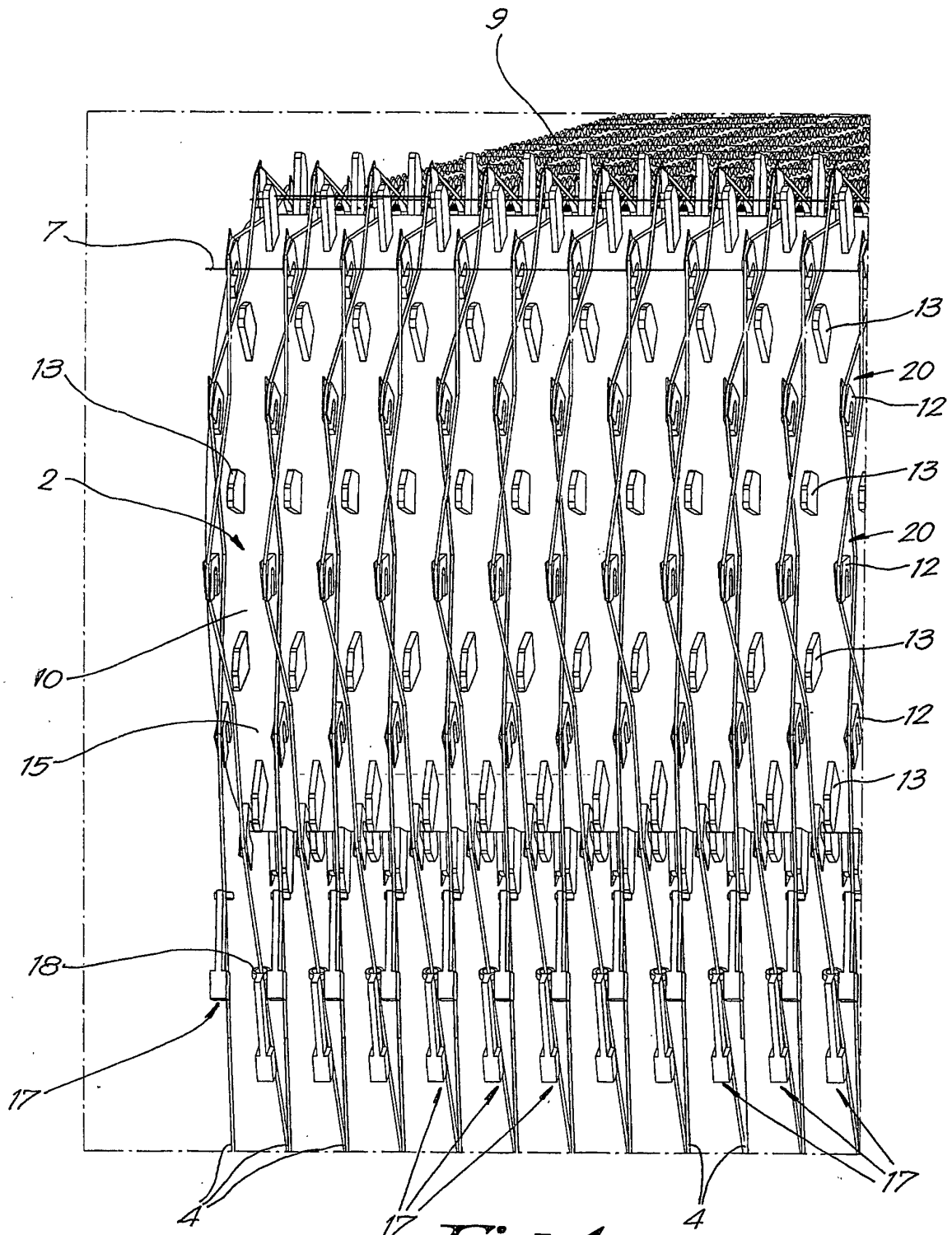


Fig. 4

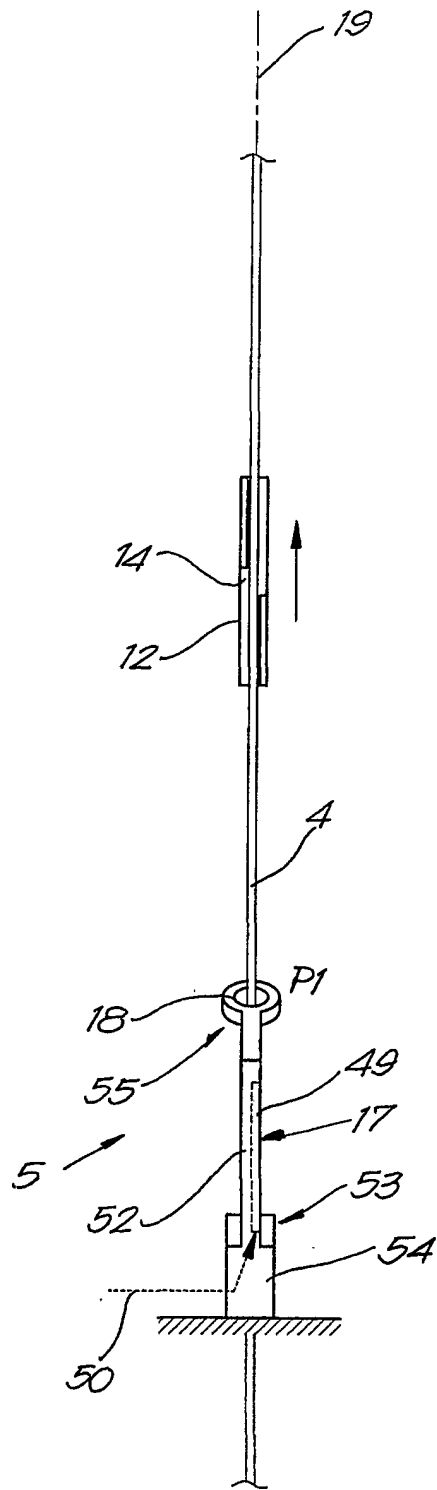


Fig. 5

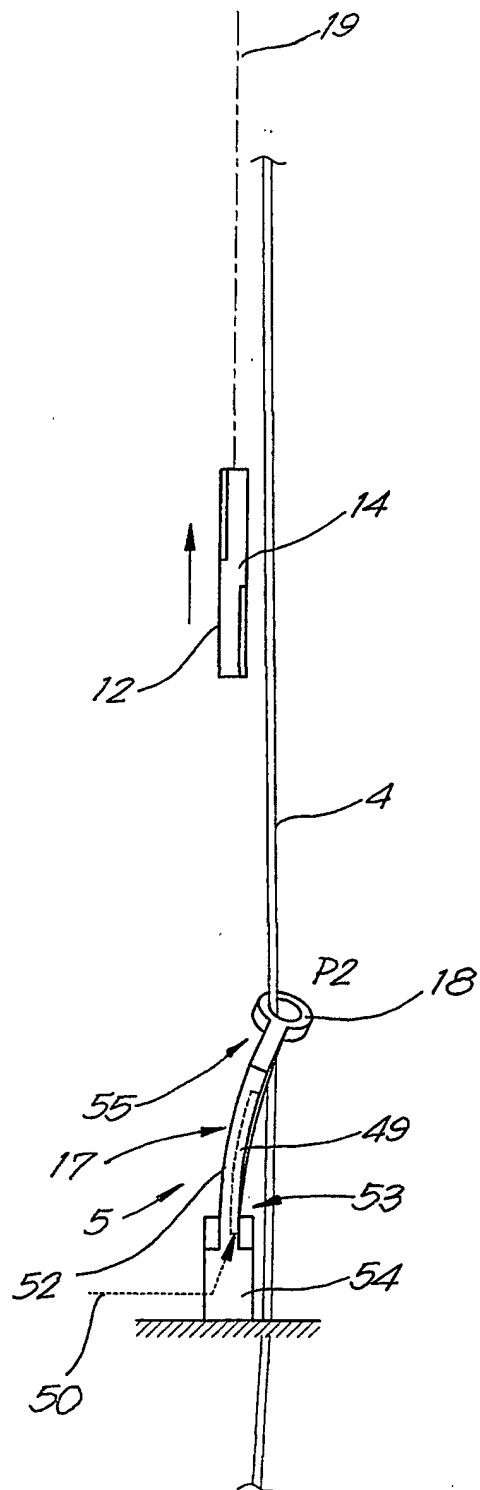


Fig. 6