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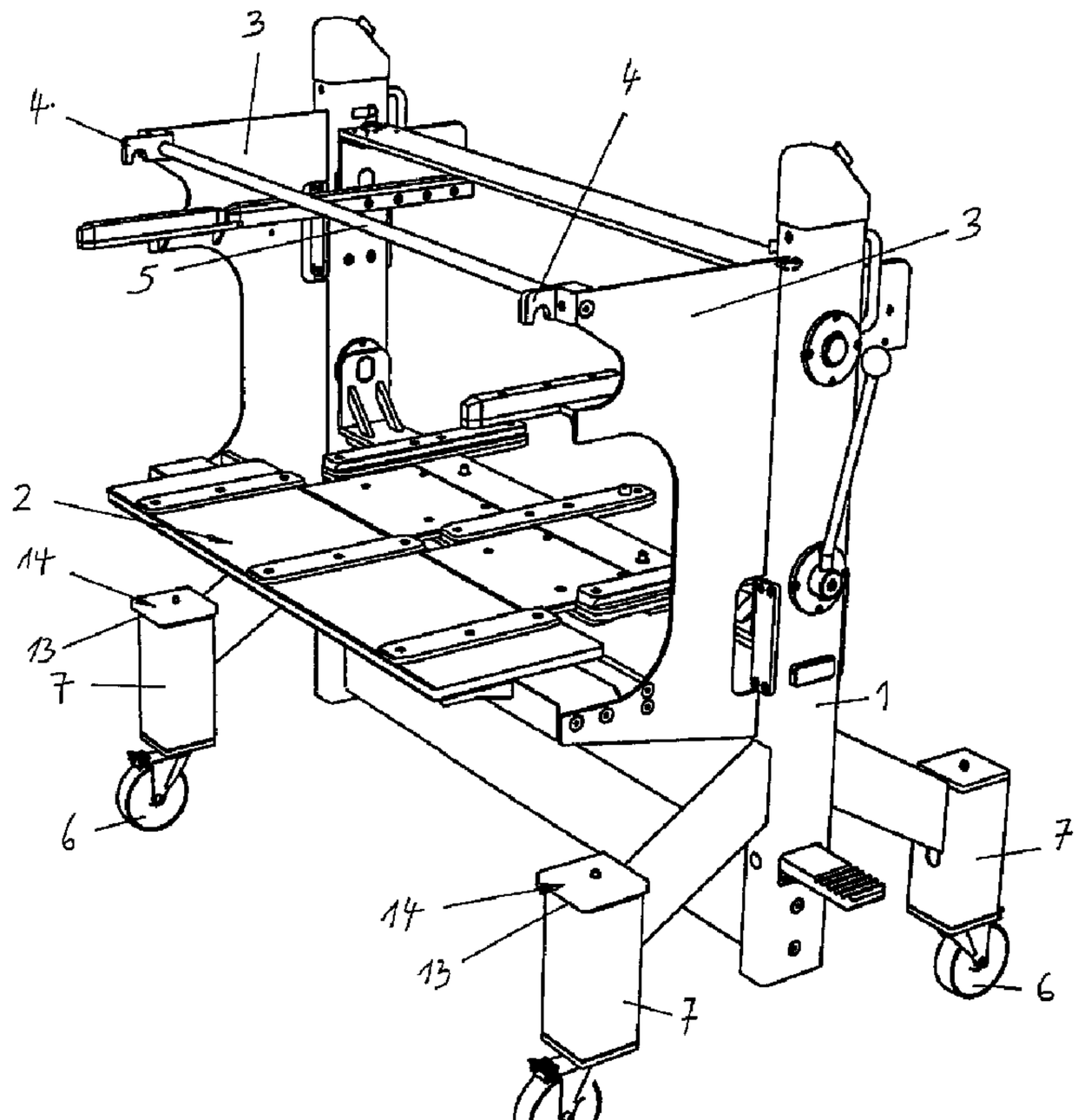
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(54) Titre : CONFIGURATION PERMETTANT DE RECEVOIR ET DE TRANSFERER ET/OU DE TRANSPORTER AU MOINS UN ELEMENT FONCTIONNEL D'APPAREIL

(54) Title: CONFIGURATION FOR ACCOMMODATING AND TRANSFERRING AND/OR TRANSPORTING AT LEAST ONE FUNCTIONAL PART OF A TECHNICAL DEVICE



(57) Abrégé/Abstract:
A configuration for accommodating and transferring and/or transporting at least one functional part, in particular a tool of a technical device, in particular a device for automatically sealing containers, comprising at least one chassis, which supports a

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(57) Abrégé(suite)/Abstract(continued):
functional part accommodating device, characterized in that the configuration comprises at least one stop element for the chassis being disposed on the technical device and in that at least one gripper element, which can be brought into engagement with the stop element, is disposed on the technical device.

ABSTRACT

A configuration for accommodating and transferring and/or transporting at least one functional part, in particular a tool of a technical device, in particular a device for automatically sealing containers, comprising at least one chassis, which supports a functional part accommodating device, characterized in that the configuration comprises at least one stop element for the chassis being disposed on the technical device and in that at least one gripper element, which can be brought into engagement with the stop element, is disposed on the technical device.

Patent Application

Configuration for Accommodating and Transferring and/or Transporting at least one Functional Part of a Technical Device

The invention relates to a configuration for accommodating and transferring and/or transporting at least one functional part, in particular of a tool of a technical device, in particular a device for automatically sealing containers, comprising at least one chassis, which supports a functional part accommodating device.

Technical devices encompass different functional parts. If a technical device is a device for automatically sealing containers, this device encompasses at least one tool for sealing the container. This tool is, for example, a foil welding apparatus, which can be divided into a lower tool and an upper tool. Containers, which are to be sealed, are guided against the upper tool by means of the lower tool, wherein a foil for sealing the containers is disposed between the containers and the upper tool.

The use of tools, which differ from one another, may be required for containers, which differ from one another. On the one hand, the lower tool is adapted to the shape of the container and, on the other hand, different numbers of containers can be sealed in one operating step by means of the lower tool and the upper tool.

For the thus necessary replacement of the tools of a device, DE 102 09 000.9 proposes a chassis, with which a tool can be accommodated, transferred and transported to a

technical device. This chassis encompasses sections, which can be attached to a lower side of a technical device.

This known chassis cannot simply be used in a technical device, which, in its bottom region, does not encompass a free space for attaching such sections.

The invention is thus based on the object of disclosing a configuration of the above-mentioned species, which enables a transfer of functional parts to a chassis and vice versa universally for a plurality of technical device.

According to the invention, this object is solved in that the configuration comprises at least one stop element for chassis, which is disposed on the technical device and in that at least one gripper element, which can be brought into engagement with the stop element, is disposed on the chassis.

In the configuration according to the invention, measures are provided on the technical device itself, as well as on a chassis. Both components are equipped with means, which enable a close attachment of the chassis to the technical device.

For this purpose, the stop element is disposed on the technical device. The chassis encompasses a gripper element, which can be brought into engagement with the stop element. A firmly positioned allocation of the chassis to the technical device is thus made possible.

The connection between the technical device and the chassis thus takes please above a base of the technical device, that is, where the stop elements are disposed on the technical device. These stop elements can be disposed on technical devices, which are very different from one another, so that a universal allocation of the chassis to

the technical devices is made possible. For this position allocation to remain over a longer period as well, e.g. for the transfer or take-over of a tool in a stable manner, at least one bearing element, which, when the gripper element is engaged with the technical device so as to abut in a defined manner, is disposed on the chassis in a first development of the invention. This bearing element is attached to the technical device, but must not be attached to the lower side of the technical device. The attachment on the technical device only serves for maintaining a reliable resting position if the gripper element is engaged with the stop element.

The stop elements are designed, for example, as protrusions, while the gripper elements contain the protrusions. The containment of protrusions by means of gripper elements enables a close connection. Nonetheless, the connection can thereby be carried out rapidly so as not to delay the delivery and removal, respectively, of functional parts to the technical device and away from the technical device, respectively. Each protrusion can thereby be a bolt.

According to a development of the invention, each gripper element is a mounting eyelet, in particular for the purpose of accelerating the configuration of the gripper element on the protrusions. This mounting eyelet can be attached to a bolt in a simple manner in that it is simply hooked in.

Preferably, the stop elements for the chassis are disposed in an upper region of a technical device. The gripper elements are then arranged in the same manner in an upper section of a chassis, so that the gripping of the stop elements occurs in the upper region of the chassis by means of the gripper elements. The chassis is thereby virtually hung up in the upper region on the gripper elements; it is

pushed against the technical device with its center of gravity, which is arranged lower.

In this region where the chassis is attached on the technical device, the bearing element is initially preferably disposed. Preferably, the bearing element is designed as a bearing surface, which can be guided against a corresponding countersurface of a technical device in a simple manner and on which it can be attached. The bearing element is thereby disposed in a lower region of the chassis so that it is accordingly located below the gripper elements.

For a further embodiment of the invention, provision is also made for the chassis to have wheels and that the wheels are accommodated on the chassis so as to be adjustable in height. The wheels thus ensure that the chassis can be moved. The height adjustability of the wheels enables an adaptation of the chassis to different technical devices comprising stop elements disposed in different elevations.

Preferably, wheels of the chassis disposed at the front and wheels disposed at the rear are combined to groups having a common activation of their height adjustability, in each case in the direction of approximation on the technical device. According to this development, two front wheels together, e.g., can be disposed higher or lower and two rear wheels together, e.g., are adjustable in height. This separation of the height adjustability can then be used in a simplified approximation on the technical device. Front sections of the chassis can thus be slightly tilted forward due to a greater height adjustment of the rear wheels. If the gripper elements are disposed in these front sections, they are guided slightly to the front so as to simplify an encompassing of the plug-in element. Subsequently, the rear wheels can then again be adjusted lower and all of the

wheels can be adjusted to be so low that the bearing element of the chassis is attached on the technical device.

Each wheel is thereby preferably designed as a guide roller having a rotatability of 360°.

An exemplary embodiment of the invention, from which further inventive features result, is illustrated in the drawing.

Fig. 1 shows a perspective view of a chassis comprising a functional part accommodating device,

Fig. 2 shows a perspective view of a device for automatically sealing containers and

Fig. 3 shows a scaled-up view of the detail III in Fig. 2 and

Fig. 4 shows a perspective view of the technical device according to Fig. 2 and of the chassis according to Fig. 1 in the event that the chassis is attached on the technical device.

The chassis in Fig. 1 is a part of the configuration according to the invention. The chassis encompasses a framework 1 consisting of profiles. This framework 1 supports a functional part accommodating device 2, with which a sealing tool of the technical device according to Fig. 2 can be accommodated, for example.

Two mounting eyelets 4 are disposed on the chassis on side walls 3 of the framework 1. Both mounting eyelets 4 are connected with one another by means of a rod profile 5, so as to stabilize the defined distance between both mounting eyelets 4.

The framework 1 of the chassis stands on four wheels 6. Each wheel 6 is held in a telescopic cylinder so as to be adjustable in height, said telescopic cylinder being disposed in a telescopic cylinder accommodation 7. The height configuration of the framework 1 above a non-illustrated base changes by retracting and extending of the wheels 6, which can be rotated by 360°, respectively.

Likewise, the technical device in Fig. 2 encompasses a frame 8. This frame 8 supports the functional parts of the technical device, inter alia an upper tool 9 and a lower tool 10. These tools 9, 10 serve for sealing bowls, e.g.. The lower tool 10 shows that this tool 10 is suitable for accommodating three bowls in a sealing process. If other bowls are to be sealed, the lower tool 10 and, if applicable, the upper tool 9 is to be removed from the technical device and is to be replaced, in each case, by another tool.

For an approximation of the chassis according to Fig. 1, the technical device in Fig. 2 is equipped with bolts 11, which are also illustrated in Fig. 3. The bolts 11 protrude from an adjacent wall 12 of the technical device so that they form a possibility for engagement for the mounting eyelets 4.

Fig. 4 shows the mounted state of the chassis on the technical device. The mounting eyelets 4 are engaged with the bolts 11. The framework 1 is attached on the technical device with front telescopic cylinder accommodations 7. In the technical device, this attachment occurs on the frame 8. In the chassis, provision is made for bearing surfaces 13 on the front side of the front telescopic cylinder accommodation 7. These bearing surfaces 13 are designed, e.g., by the front edges of the cover elements 14, which close the telescopic cylinder accommodations 7 at the top.

PATENT CLAIMS

1. A configuration for accommodating and transferring and/or transporting at least one functional part, in particular a tool of a technical device, in particular a device for automatically sealing containers, comprising at least one chassis, which supports a functional part accommodating device,
characterized in
that the configuration comprises at least one stop element for the chassis being disposed on the technical device and in that at least one gripper element, which can be brought into engagement with the stop element, is disposed on the technical device.

2. The configuration according to claim 1, characterized in that at least one bearing element, which, when the gripper element is engaged with the technical device so as to be attached in a defined manner, is disposed on the chassis.

3. The configuration according to claim 1 or 2, characterized in that the stop elements are designed as protrusions and in that the gripper elements contain the protrusions.

4. The configuration according to claim 3, characterized in that each protrusion is a bolt (11).

5. The configuration according to claim 3 or 4, characterized in that each gripper element is a mounting eyelet (4).

6. The configuration according to one of the preceding claims, characterized in that the gripper element is disposed in an upper section of the chassis.

7. The configuration according to one of the preceding claims, characterized in that the bearing element of the chassis is a bearing surface (13).

8. The configuration according to one of the preceding claims, characterized in that the bearing element is disposed in a lower region of the chassis.

9. The configuration according to one of the preceding claims, characterized in that the chassis has wheels (6), and in that the wheels (6) are accommodated on the chassis so as to be adjustable in height.

10. The configuration according to claim 9, characterized in that wheels (6) disposed at the front and wheels (6) disposed at the rear are combined to groups having a common activation of their height adjustability, in each case in the direction of approximation on the technical device.

11. The configuration according to claim 9 or 10, characterized in that each wheel (6) is designed as a guide roller (6) having a rotatability of 360°.

Fig.1

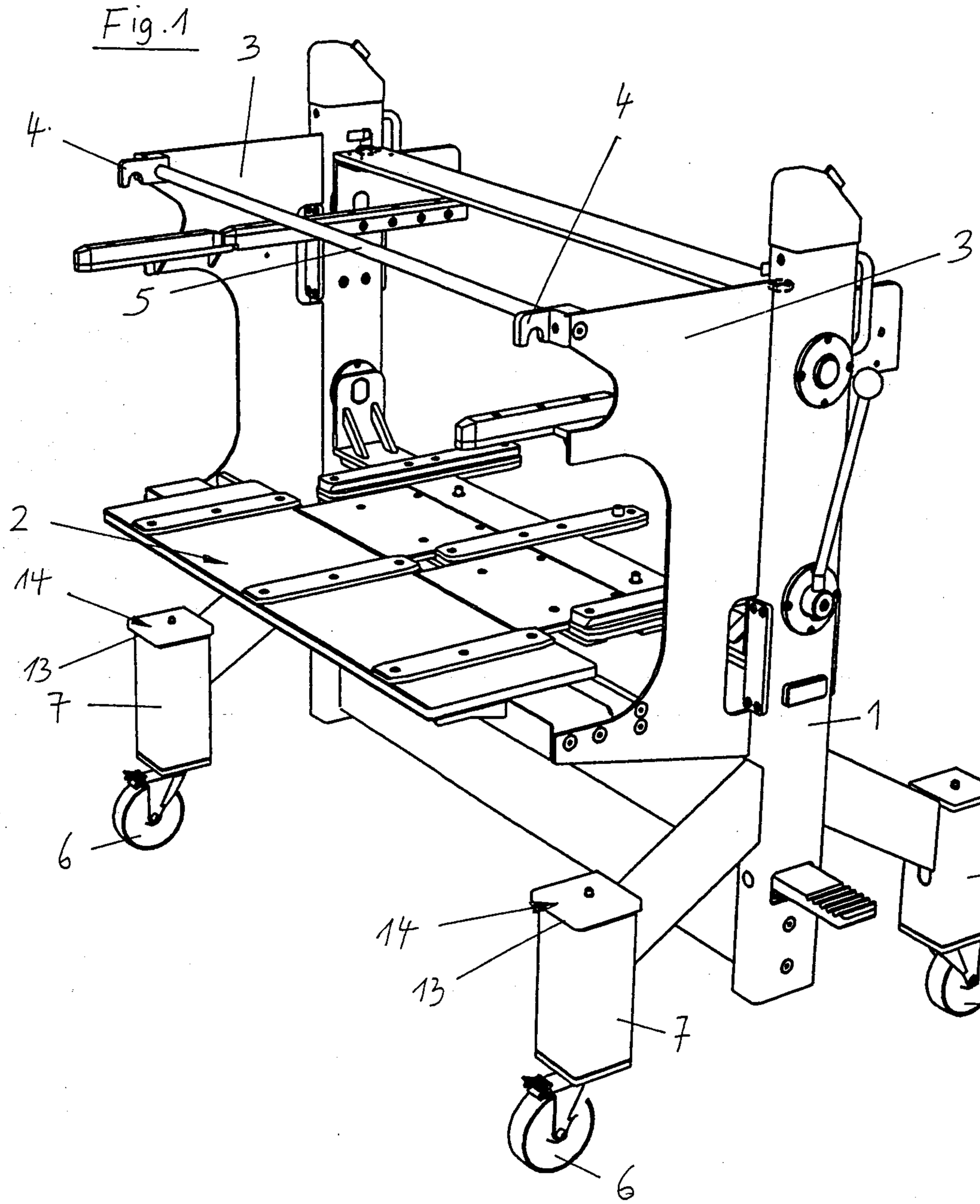


Fig. 2

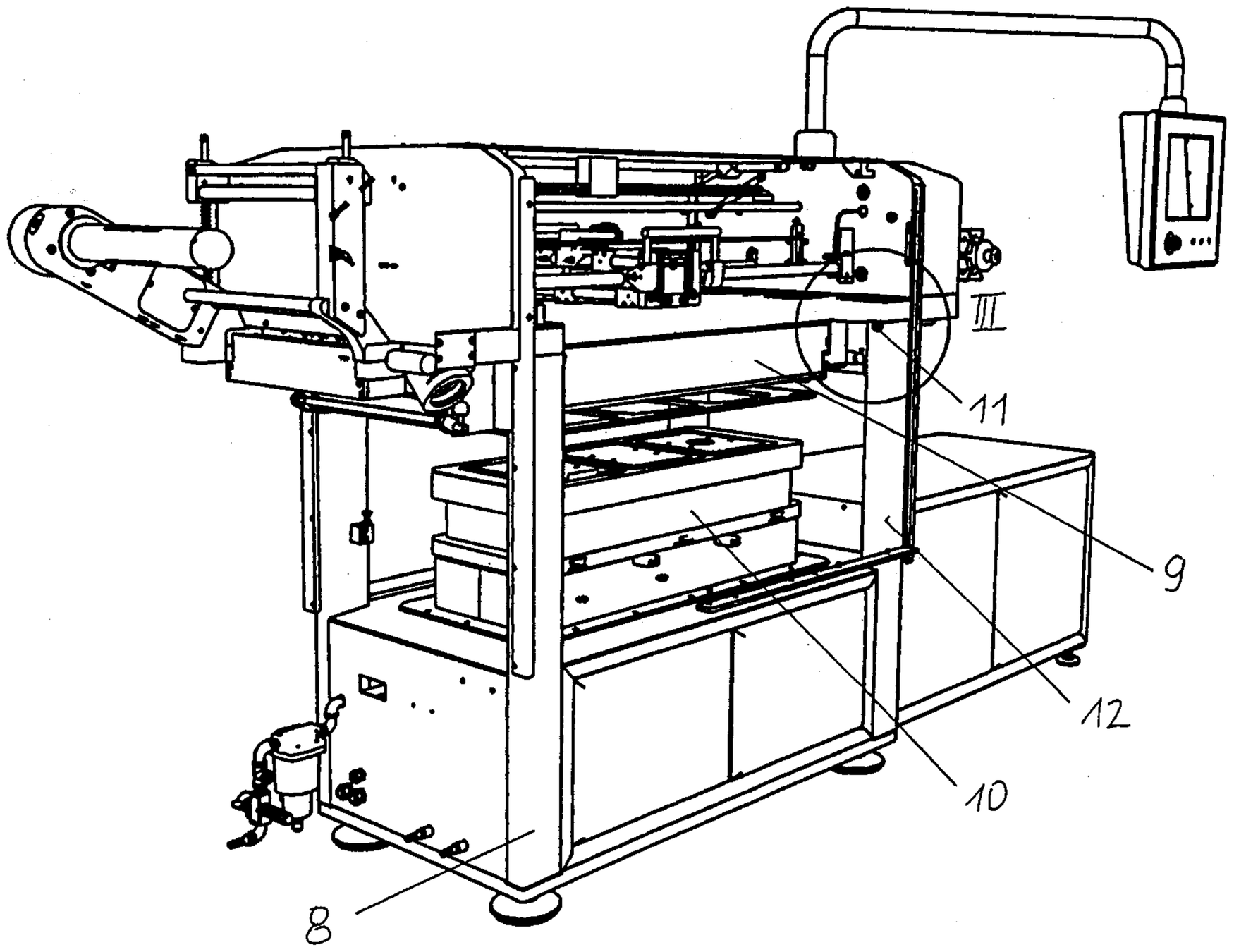


Fig. 3

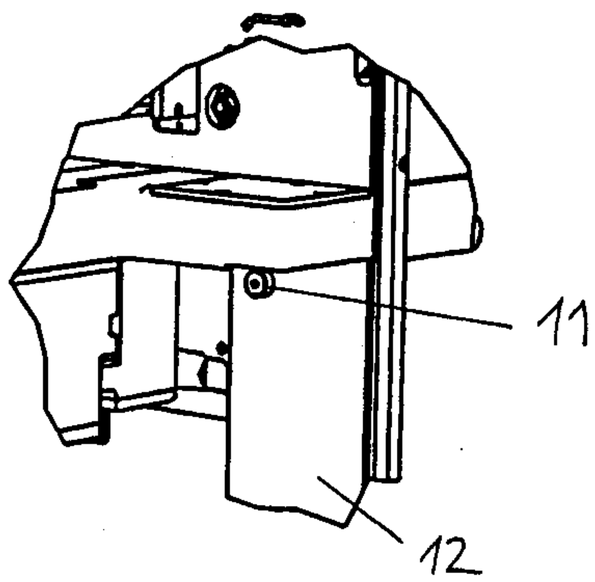
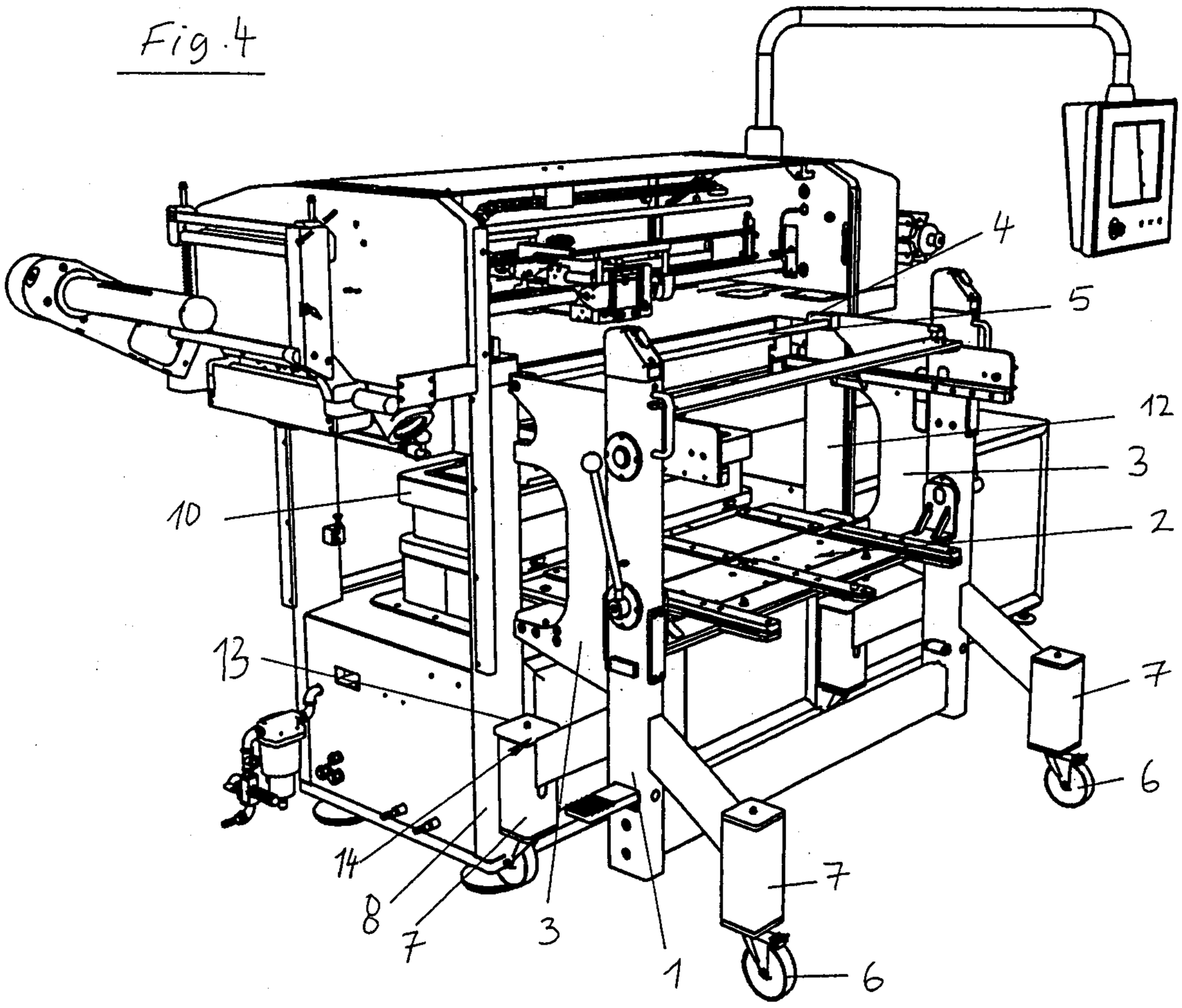
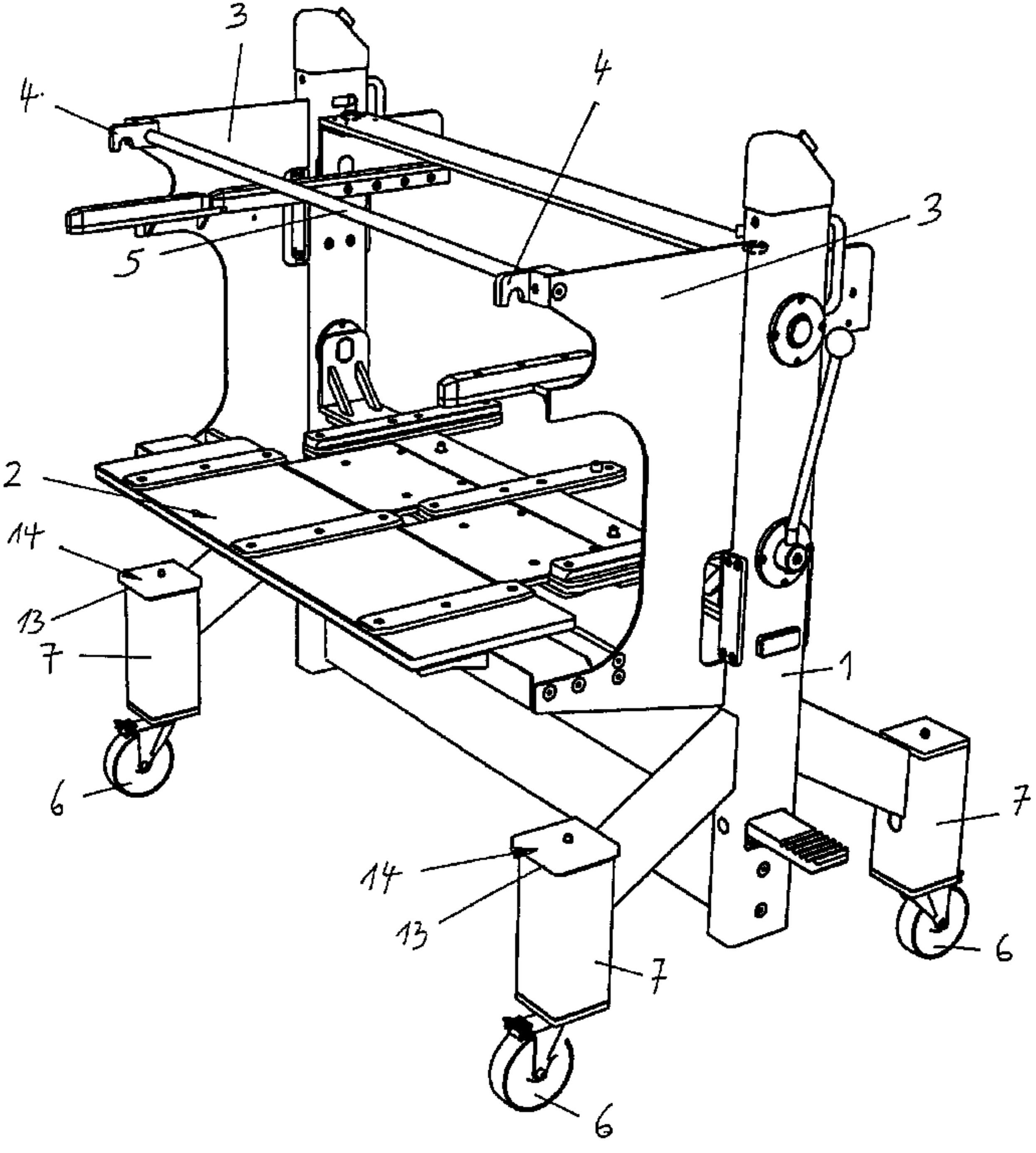


Fig. 4




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