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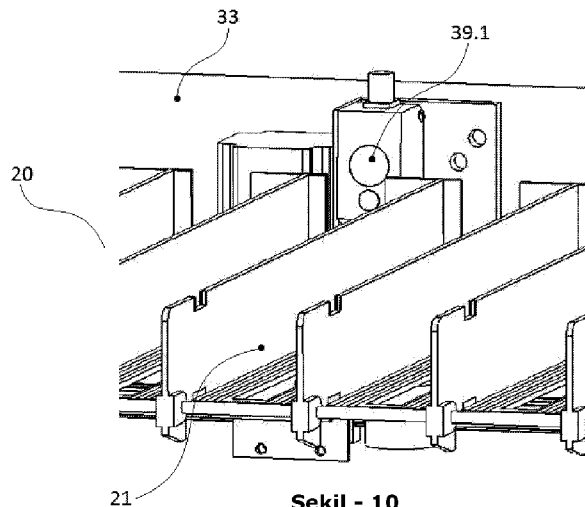
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(54) Title: AUTOMATIC CIGARETTE VENDING MACHINE



Şekil - 10

(57) Abstract: The invention is relevant to the automatic cigarette vending machine (A) that realizes the sales of cigarette to the consumer as being positioned at cigarette sales offices, markets and gas stations where cigarette is being sold and as being controlled by the cashier, and from which instant cigarette sales report and inventory report is able to be obtained.



## **AUTOMATIC CIGARETTE VENDING MACHINE**

### **5 TECHNICAL FIELD**

The invention is relevant to cigarette vending machine positioned at cigarette sales offices, markets and gas stations where cigarette is being sold.

10 The invention is especially relevant to the following that is positioned at cigarette sales offices, markets and gas stations where cigarette is being sold;

- automatic cigarette vending machine realizing the automatic sales of the cigarette on the racks by entering code and number of the requested cigarette on the control panel along with the money inserted in the money entrance on the body of the machine, and also realizing the cigarette sales for the consumer through control of cigarette sales operation by the cashier.

### **PREVIOUS TECHNIQUE**

20

Today, even if it is harmful for health, the people are smoking. The smokers are procuring their cigarettes from groceries, markets, shopping markets and vending machine sales markets.

25 When the people want to procure cigarette at crowded areas they use in their daily lives such as roads, main streets, subway stations, stations, they are obliged to visit the closest sales point as specified above. The cigarette being available on the cigarette stands at the specified sales points is being presented to the consumer by the seller. The cigarette is being procured in this manner. In the  
30 procurement of cigarette as specified, the inventory control is unable to be realized instantly.

## PURPOSE OF THE INVENTION

Due to negativities being available in the previous technique, the invention intends to resolve all the referred negativities.

5

The purpose of the invention is enabling the formation of cigarette vending machine positioned at cigarette sales offices, markets and gas stations where cigarette is being sold.

10 Another purpose of the invention is enabling the formation of the following that is positioned at cigarette sales offices, markets and gas stations where cigarette is being sold;

- automatic cigarette vending machine realizing the automatic sales of the  
15 cigarette on the racks by entering code and number of the requested cigarette on the control panel along with the money inserted in the money entrance on the body of the machine, and also realizing the cigarette sales for the consumer through control of cigarette sales operation by the cashier.

20 Another purpose of the invention is enabling the reading the of the cigarette amount in the cigarette vending machine through laser reader, and its assessment through the control panel and reporting of it to the seller. By this way, all information such as the amount of cigarettes remaining in the cigarette vending machine, the amount of cigarettes sold, the obtained income are able to be  
25 monitored by the seller.

Another purpose of the invention is enabling the positioning of cigarettes again by the authorized individuals in case of lack of cigarette on the racks inside the automatic cigarette vending machine.

30

Another purpose of the invention is enabling the collection of monies piled up in the automatic cigarette vending machine by the authorized individuals.

**DESCRIPTION OF THE FIGURES**

5 Figure-1; General perspective view from a different angle of the assembled automatic cigarette vending machine being the subject of invention,

Figure-2; General perspective view from a different angle of the inside section of assembled automatic cigarette vending machine being the subject of invention,

10 Figure-3; General perspective view from a different angle of the striking mechanism of automatic cigarette vending machine being the subject of invention,

Figure-4; General perspective view from a different angle of the inside section of assembled automatic cigarette vending machine being the subject of invention,

15

Figure-5; Perspective detail view from a different angle of the top section of striking mechanism of automatic cigarette vending machine being the subject of invention,

20 Figure-6; Perspective detail view from a different angle of the bottom section of striking mechanism of automatic cigarette vending machine being the subject of invention,

25 Figure-7; Perspective detail view from a different angle of the pushing mechanism -attached to rack- of automatic cigarette vending machine being the subject of invention,

Figure-8; Perspective detail view from a different angle of the striking mechanism of automatic cigarette vending machine being the subject of invention,

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Figure-9; Perspective detail view from a different angle of the rack of automatic cigarette vending machine being the subject of invention,

Figure-10; Perspective detail view from a different angle of the striking mechanism of automatic cigarette vending machine being the subject of invention,

## 5 REFERENCE NUMBERS

A. Cigarette vending machine

10. Body

11. Front cover

10 11.1. Glass

12. Side cover

13. Control panel

14. Money entrance

15 15. Chamber

15 16. Foot

20. Rack

21. Positioning space

22. Space

23. Holding element

20 30. Strike mechanism

31. Bottom profile

32. Top profile

33. Mobile profile

33.1. Control rod

25 34. Threaded rod

34.1. Nut bearing

35. Skidder

35.1. Bearing

36. Vertical movement motor

30 36.1. Cone gear

37. Horizontal movement motor

37.1. Horizontal drive gear

38. Strike motor

38.1. Strike gear

38.2. Strike arm

39. Connector plate

5 39.1. Laser reader

40. Pushing mechanism

41. Pushing arm

42. Intermediate arm

43. Movement arm

10 44. Rotating element

45. Pin

## DETAILED EXPLANATION OF THE INVENTION

15 In Figure-1, there is the representative perspective view from a different angle of the cigarette vending machine (A) being remote controlled by the cashier as being positioned at cigarette sales offices, markets and gas stations where cigarette is being sold.

20 Automatic cigarette vending machine (A) being the subject of invention is consisting of main elements of body (10), rack (20), strike mechanism (30) and pushing mechanism (40).

The front part of the body (10) consists of the elements of front cover (11) that is  
25 enabling the positioning of cigarette inside the machine (A) that can be opened only by authorized individuals- and on which there is a glass (11.1), side cover (12) covering the section where the monies inserted in the machine (A) accumulate, control panel (13), money entrance (14), chamber (15) enabling cigarette to be taken from the machine (A) by the consumer, and foot (16)  
30 enabling the machine (A) to be positioned on the floor.

As seen in Figure-2, the machine (A) has more than one racks (20) engaged to each other one under the other and side by side on the feet (16). On each rack (20), there are positioning space (21) where the cigarette will be positioned, space (22) and holding element (23).

5

The strike mechanism (30) of the machine (A) consists of bottom profile (31), top profile (32), mobile profile (33), threaded rod (34), skidder (35), vertical movement motor (36), horizontal movement motor (37), strike motor (38) and connector plate (39).

10

As seen in Figure-3, the strike mechanism (30) has been engaged on the feet (16). Bottom profile (31) has been engaged in the rear section of feet (16), skidders (35) have been engaged to the sides of bottom profile (31), and threaded rod (34) has been engaged to its middle section. The specified threaded rod (34) is engaged with top profile (32) at the top section of the skidders (35). The mobile profile (33) has been engaged on the skidders (35) through the bearing (35.1). The up/down movement of the mobile profile (33) on the skidders (35) through the bearings (35.1) is being realized through the nut bearing (34.1) engaged with threaded rod (34).

15

As seen in Figure-8, the vertical movement motor (36) engaged to the bottom section of the threaded rod (34) through cone gears (36.1) is enabling the rotation of the threaded rod (34). Control rod (33.1) has been engaged to the front section of the movement profile (33). Horizontal movement motor (37), operating as contacting to control rod (33) and having horizontal drive gear (37.1) at its end, has been engaged on the connector plate (39). The strike motor (38) bearing strike gear (38.1) and strike arm (38.2) has been engaged on the connector plate (39) along with horizontal movement motor (37). The laser reader (39.1) reading the amount of cigarettes being available on each rack (20) inside the machine (A) from the space (22) at the back of the rack (20) is engaged to the connector plate (39).

20

25

30

As seen in Figures-7 and 9, the pushing mechanism (40) consists of pushing arm (41), intermediate arm (42), movement arm (43), rotating element (44) and pin (45).

5 In the operation of the automatic cigarette vending machine (A) being the subject of invention, first the authorized individual opens the front cover (11) and places the cigarettes on the positioning space (21) being available on each rack (20). At the front section of each rack (20), there is rotating element (44) being engaged through pin (45).

10

When the consumer wants to buy cigarette, s/he is paying to the cashier the money corresponding to the number of cigarettes s/he wants to buy. As the result of the payment, the cashier is enabling the fall of the cigarette –whose payment is received- into the chamber (15) by making an entry on the control panel (13), thus  
15 on the machine (A) by controlling from the cash register.

The machine (A), that is perceiving the requested cigarette entered from the control panel (13) which is integrated with the cash register, is moving strike mechanism (30). For the strike mechanism (30) to reach the determined height  
20 vertically at the back section of the relevant rack (20), the threaded rod (34) is realizing the rotation to right or left through the cone gears (36.1) engaged to the end section of the vertical movement motor (36). Then the threaded rod (34) is enabling the up/down movement of the mobile profile (33) which is engaged on threaded rod (34) through the nut bearing (34.1).

25

The strike mechanism (30), that reaches the rack (20) at the relevant height, reaches behind the relevant rack (20) by moving to right or left horizontally through the horizontal drive gear along with the rotation of the horizontal movement motor (37) that again moves horizontally on the movement profile (33) and that is  
30 engaged to connector plate (39). For the rotating element (44) to release the cigarette that it blocks, the strike arm (38.2) is striking the pushing arm (41) on the pushing mechanism (40) along with the operation of the strike motor (38) of the

strike mechanism (30). The pushing arm (41) transfer movement to the movement arm (43) engaged with it through the intermediate arm (42). Then, the movement arm (43) rotates outwards the rotating element (44) –engaged to it at its end section- on the axis of pin (45), and the fall of the cigarette inside the chamber  
5 (15) is being ensured. This operation is continuing as much as the number of cigarettes to be sold.

The amount of cigarettes being available in the machine (A) are being reported as being measured by the laser reader (39.1) reaching the space (22) at the back  
10 section of each rack (20). By this way, instant reporting of the cigarette amount is able to be ensured at the sales office.

As an alternative construct, the cigarette vending machine (A) being the subject of invention is also able to be used as being positioned at crowded areas such as  
15 roads, main streets, subway stations and stations being used by the people in their daily lives. In such a use, along with the money inserted to the money entrance (14) on its body (10), it is realizing the automatic sales of the cigarette being available on the racks (20) by the entry of code and number of requested cigarettes on the control panel (13).

20

When the consumer wants to buy cigarette from the machine (A), s/he is inserting the money from the money entrance (14), and s/he is entering the code and number of requested cigarette from the control panel (13).

25 The machine (A), that is perceiving the requested cigarette entered from the control panel (13), is moving strike mechanism (30). For the strike mechanism (30) to reach the determined height vertically at the back section of the relevant rack (20), the threaded rod (34) is realizing the rotation to right or left through the cone gears (36.1) engaged to the end section of the vertical movement motor (36).  
30 Then the threaded rod (34) is enabling the up/down movement of the mobile profile (33) which is engaged on threaded rod (34) through the nut bearing (34.1).

- The strike mechanism (30), that reaches the rack (20) at the relevant height, reaches behind the relevant rack (20) by moving to right or left horizontally through the horizontal drive gear along with the rotation of the horizontal movement motor (37) that again moves horizontally on the movement profile (33) and that is engaged to connector plate (39). For the rotating element (44) to release the cigarette that it blocks, the strike arm (38.2) is striking the pushing arm (41) on the pushing mechanism (40) along with the operation of the strike motor (38) of the strike mechanism (30). The pushing arm (41) transfer movement to the movement arm (43) engaged with it through the intermediate arm (42). Then, the movement arm (43) rotates outwards the rotating element (44) –engaged to it at its end section- on the axis of pin (45), and the fall of the cigarette inside the chamber (15) is being ensured. This operation is continuing as much as the number of cigarettes to be sold.
- 15 The amount of cigarettes being available in the machine (A) are being reported as being measured by the laser reader (39.1) reaching the space (22) at the back section of each rack (20).

**CLAIMS**

1. The invention is being characterized with the automatic cigarette vending machine (A) that realizes the sales of cigarette to the consumer as being positioned at cigarette sales offices, markets and gas stations where cigarette is being sold and as being controlled by the cashier, and from which instant cigarette sales report and inventory report is able to be obtained.
2. It is cigarette vending machine (A) conforming to Claim-1, and the feature of the cigarette vending machine (A) is covering of a body having front cover (11) having a glass (11.1) on it, side cover (12), control panel (13), money entrance (14), chamber (15) and foot (16).
3. It is cigarette vending machine (A) conforming to Claim-1, and the feature of the cigarette vending machine (A) is covering of rack (20) engaged one under the other and side by side through the holding element (23), and on which positioning space (21) and space (22) are available.
4. It is cigarette vending machine (A) conforming to Claim-1, and the feature of the cigarette vending machine (A) is covering of strike mechanism (30) having bottom profile (31) engaged to connector plate (39), top profile (32), mobile profile (33), threaded rod (34), skidder (35), vertical movement motor (36), horizontal movement motor (37), strike motor (38).
5. It is cigarette vending machine (A) conforming to Claim-1 or 4, and the feature of it is covering of control rod (33.1) engaged to mobile profile (33).
6. It is cigarette vending machine (A) conforming to Claim-1 or 4, and the feature of it is covering of nut bearing (34.1) engaged to threaded rod (34).
7. It is cigarette vending machine (A) conforming to Claim-1 or 4, and the feature of it is covering of two separate bearings (35.1) engaged to two separate skidders (35).
8. It is cigarette vending machine (A) conforming to Claim-1 or 4, and the feature of it is covering of vertical movement motor (36) engaged to cone gears (36.1) enabling the rotation of threaded rod (34).

9. It is cigarette vending machine (A) conforming to Claim-1 or 4, and the feature of it is covering of vertical movement motor (37) transmitting movement through horizontal drive gear (37.1) on the control rod (33.1).
- 5 10. It is cigarette vending machine (A) conforming to Claim-1 or 4, and the feature of it is covering of strike motor (38) engaged to connector plate (39) and having strike gear (38.1) and strike arm (38.2).
11. It is cigarette vending machine (A) conforming to Claim-1 or 4, and the feature of it is covering of laser reader (39.1) engaged to connector plate (39).
- 10 12. It is cigarette vending machine (A) conforming to Claim-1, and the feature of the cigarette vending machine (A) is covering of pushing mechanism (40) having pushing arm (41), interim arm (42), movement arm (43), rotating element (44) and pin (45).
- 15 13. It is cigarette vending machine (A) conforming to Claim-1, and the feature of it is covering of cigarette vending machine (A) that can also be used as being positioned at crowded areas such as roads, main streets and subway stations except the markets and cigarette sales offices.

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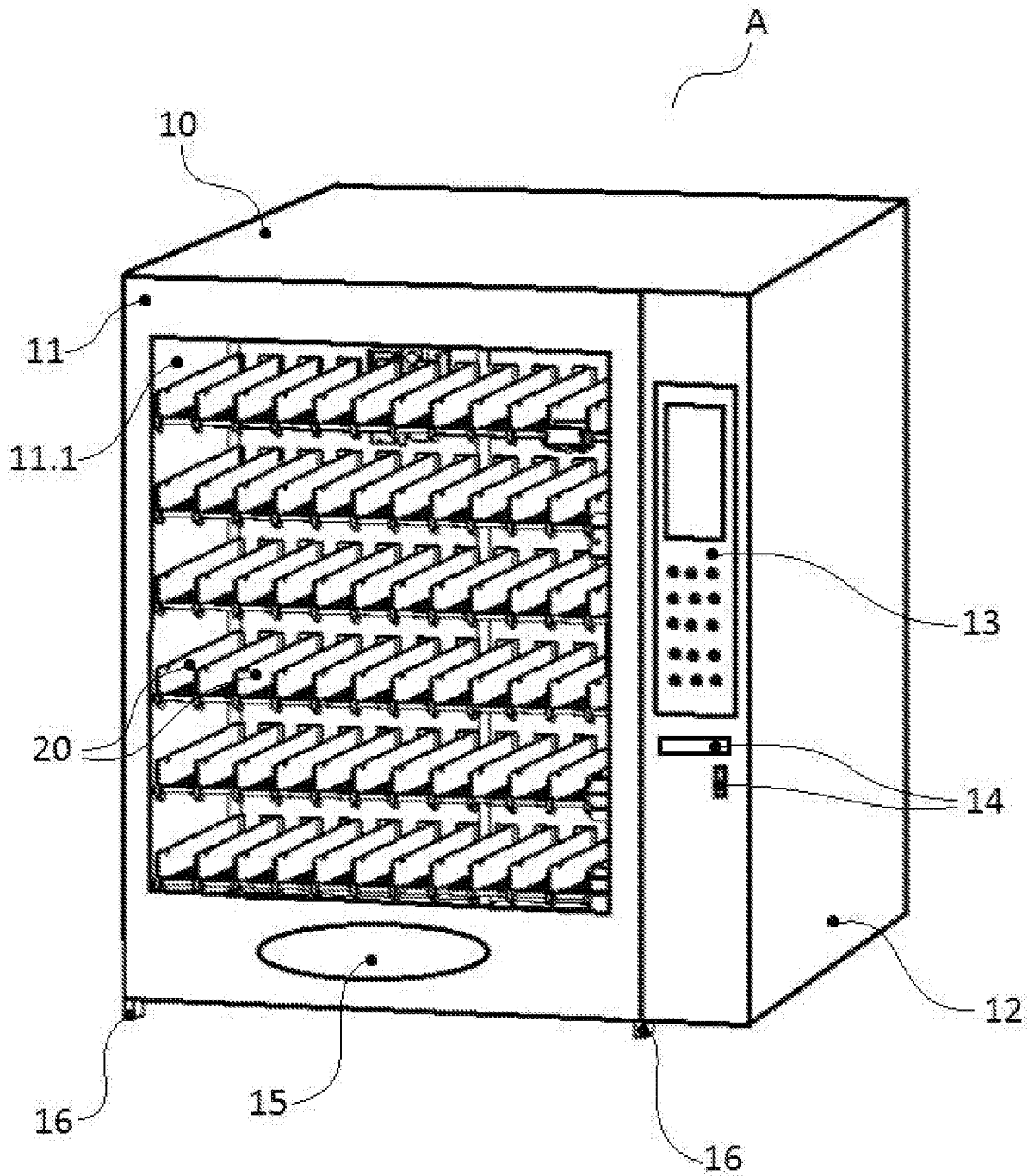
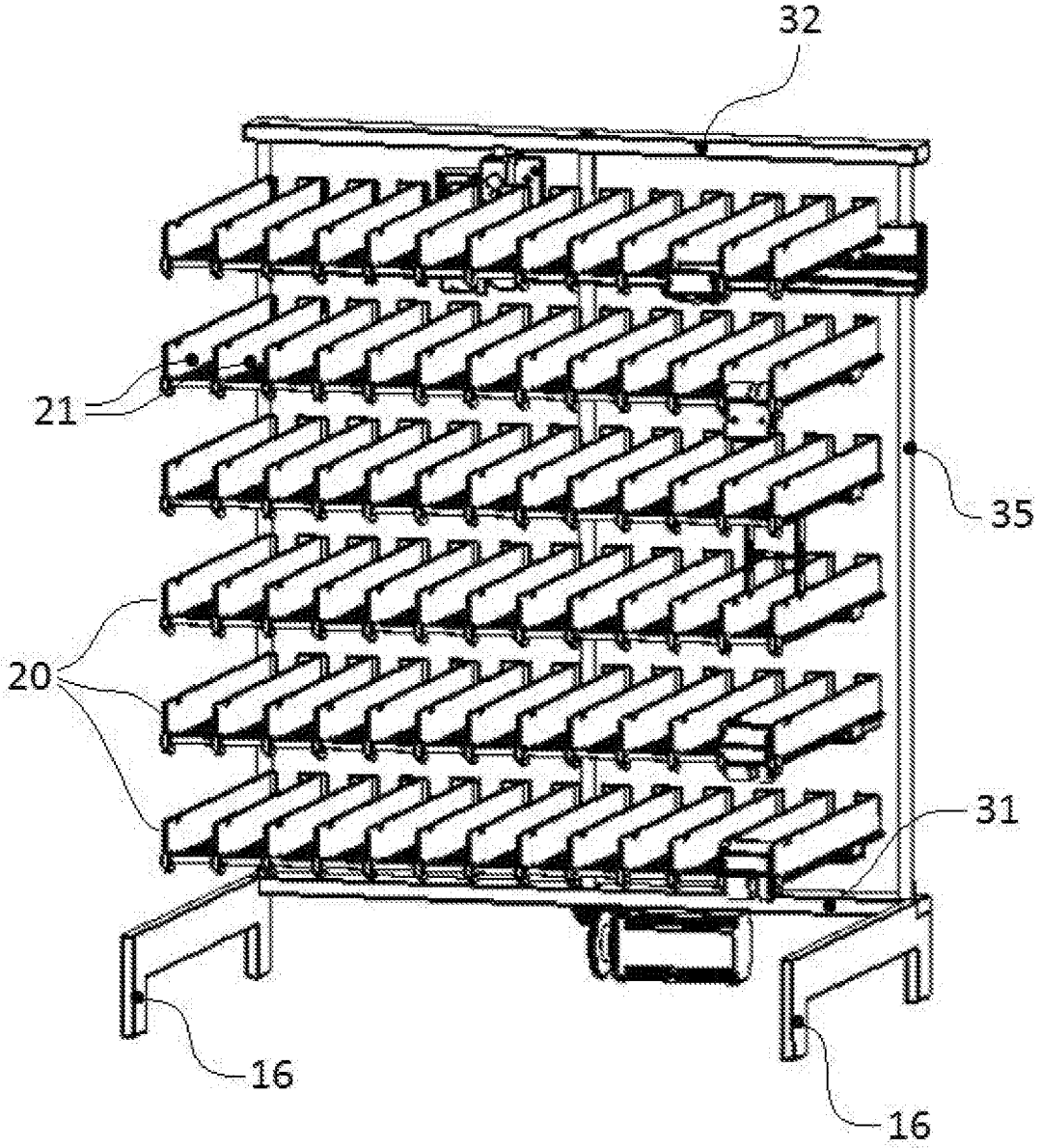


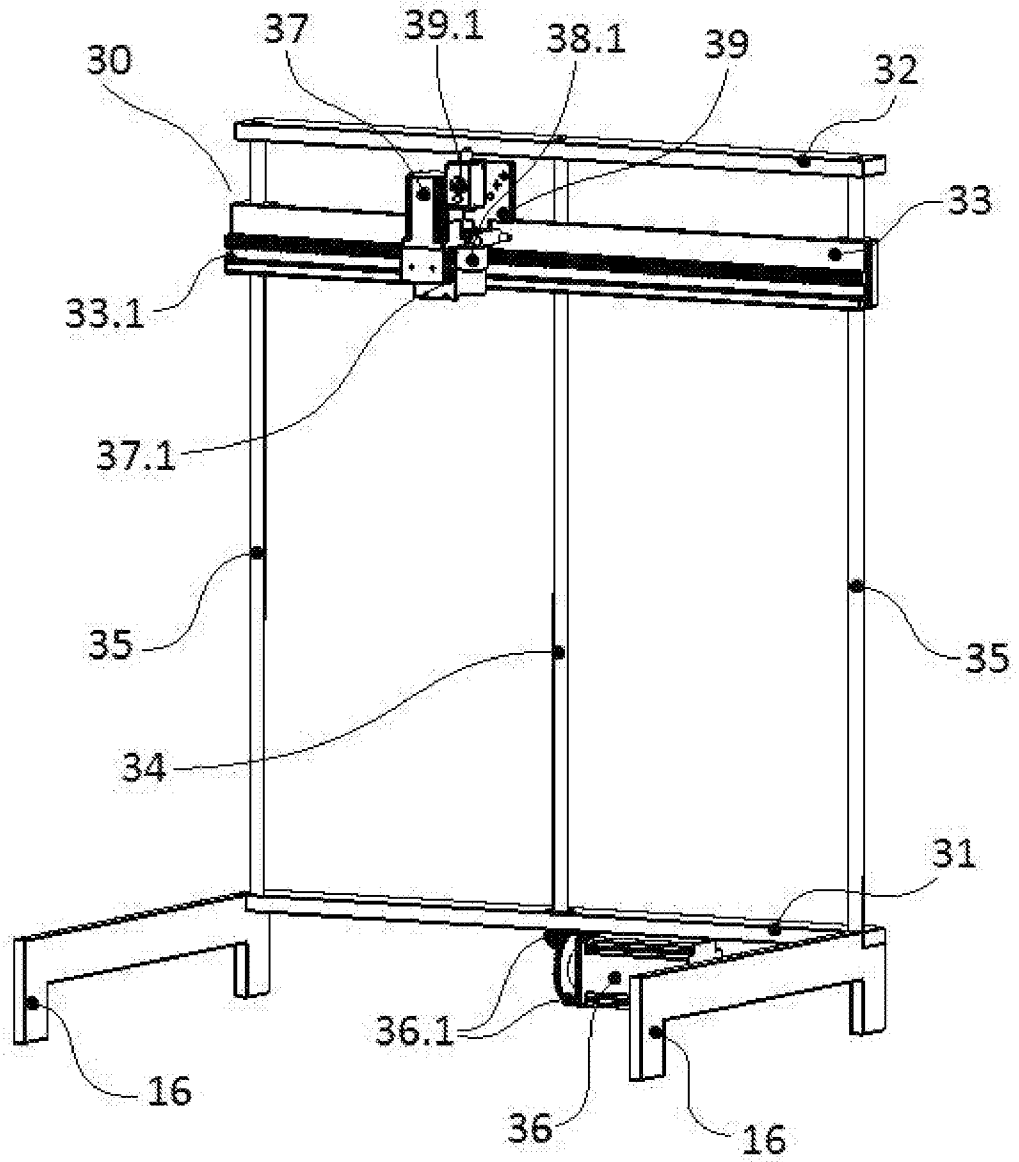
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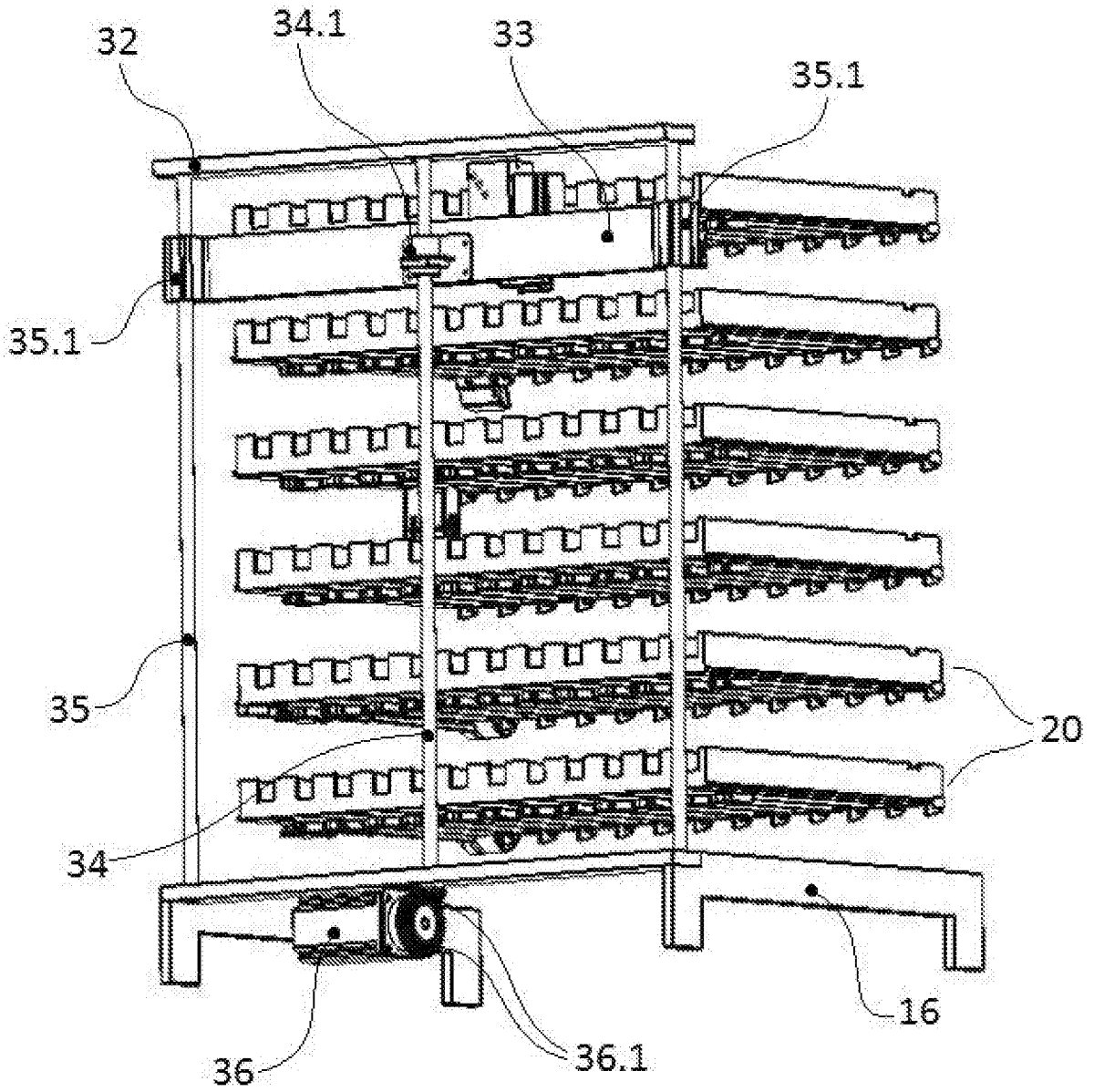
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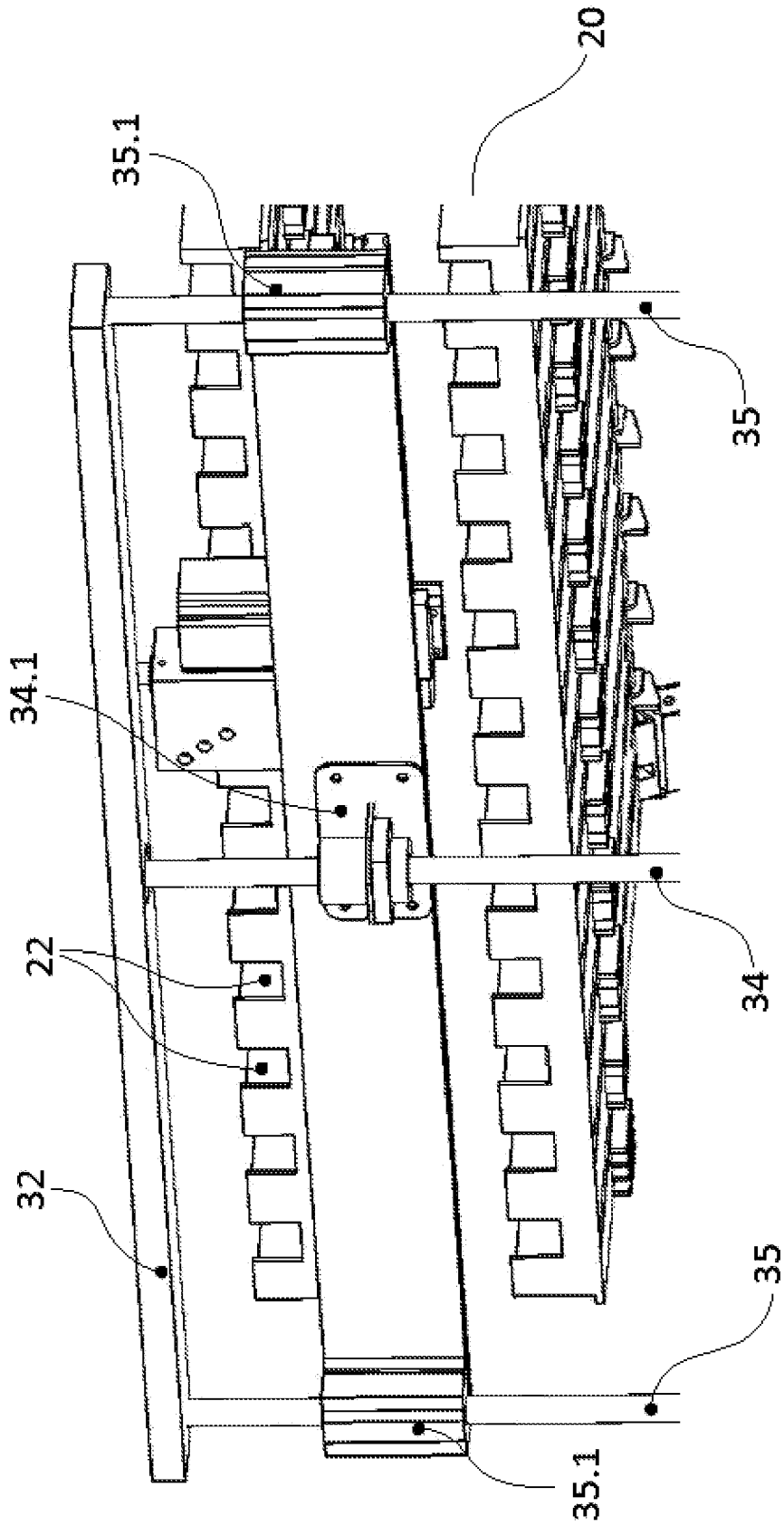


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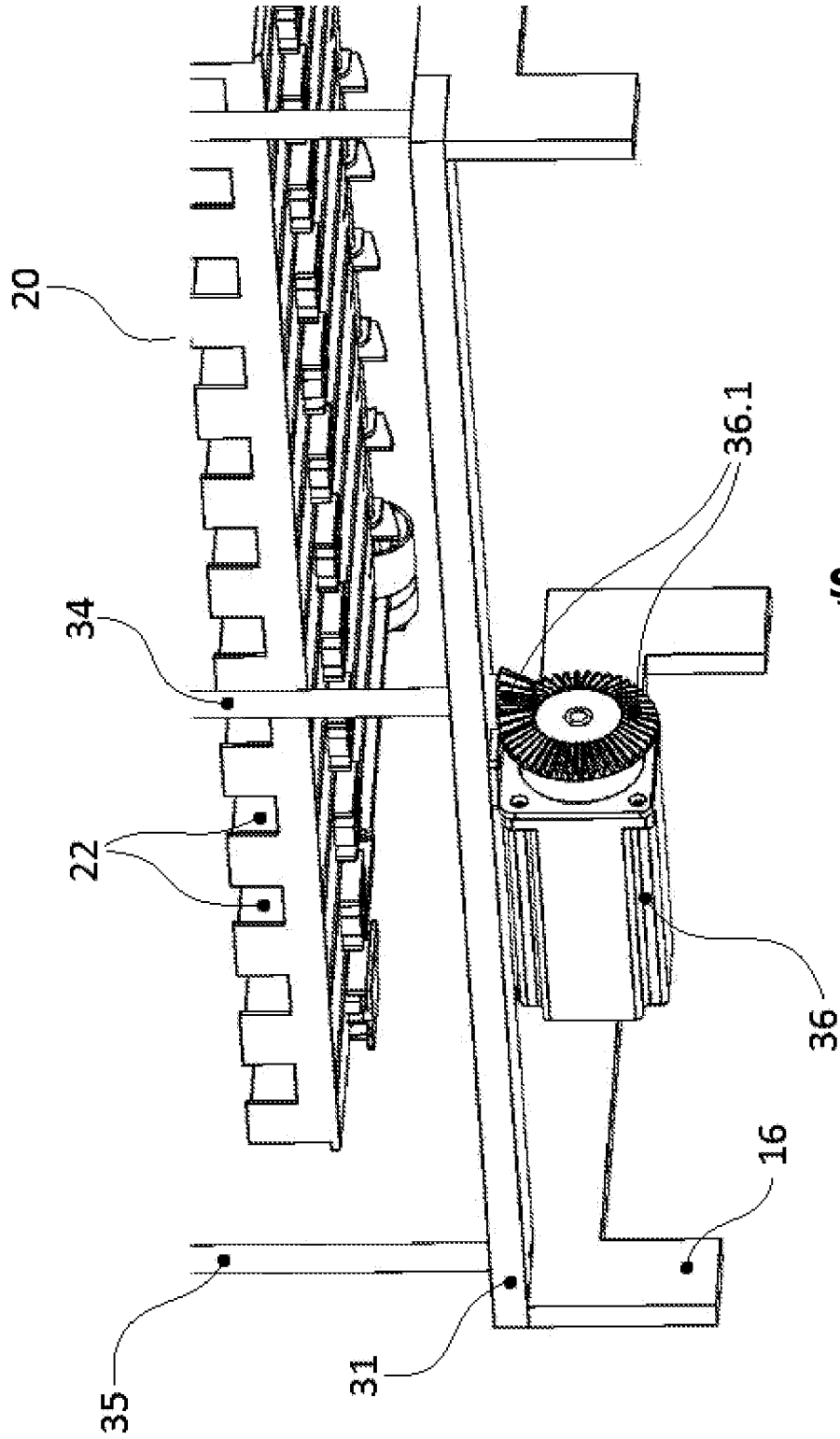


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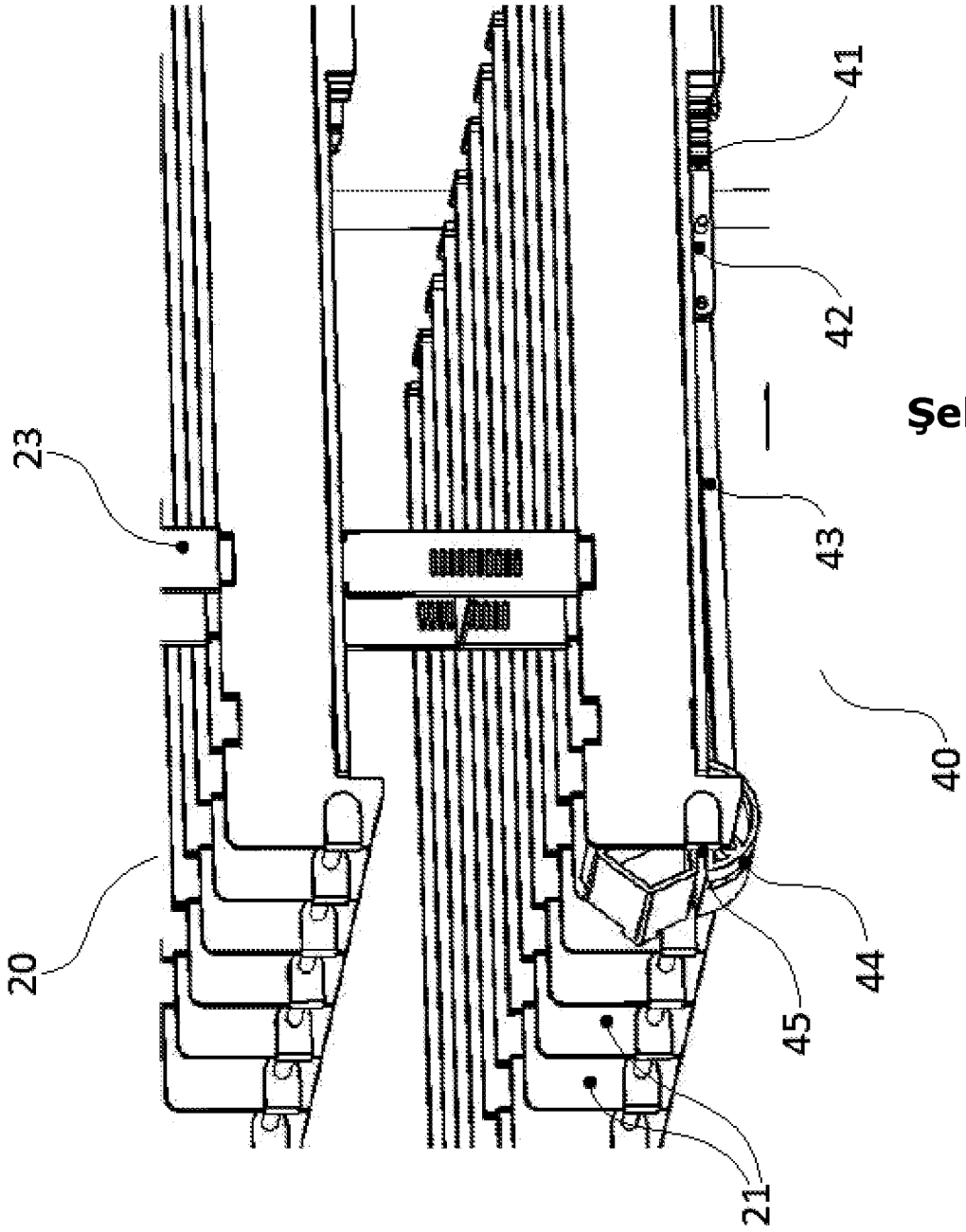
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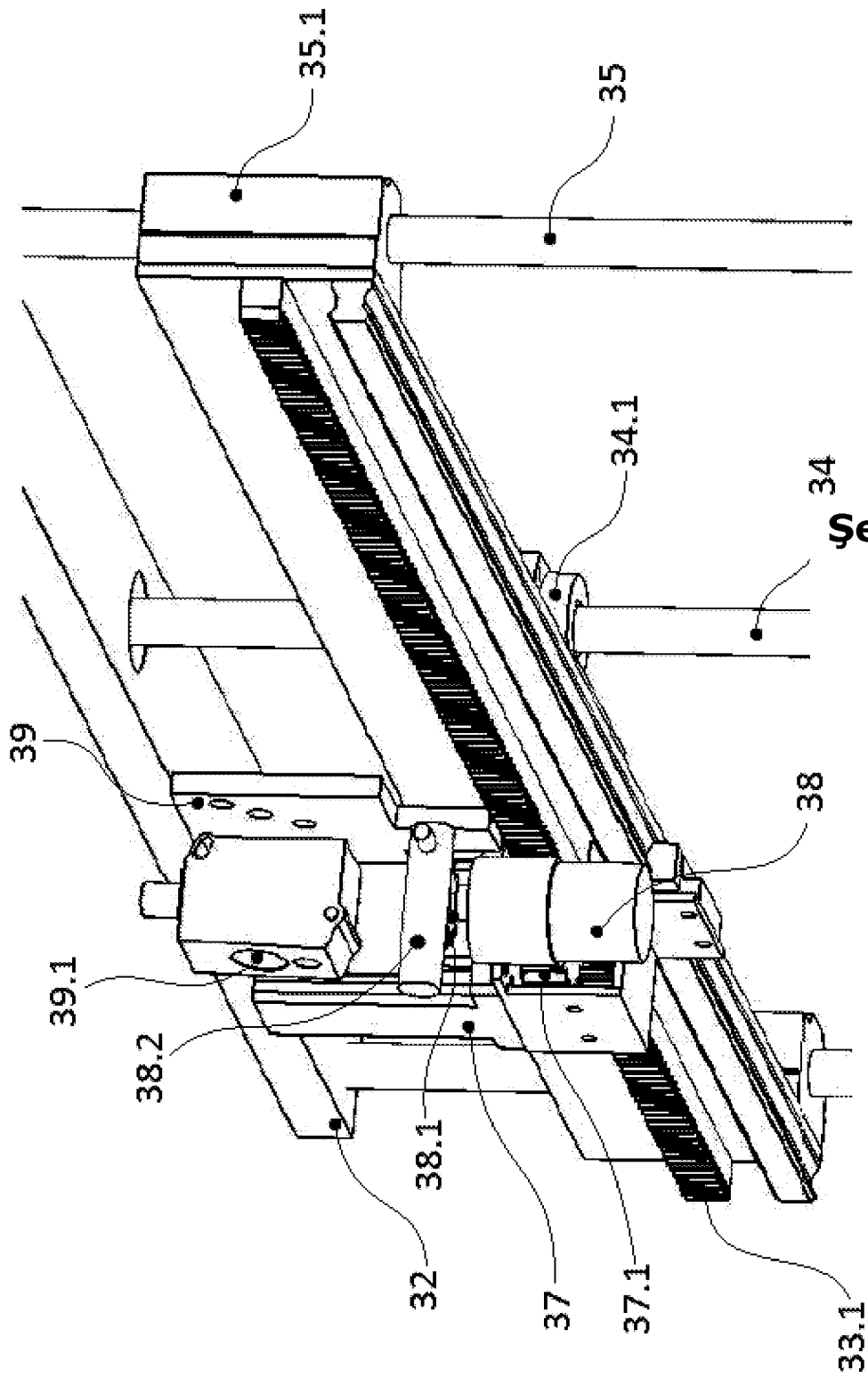
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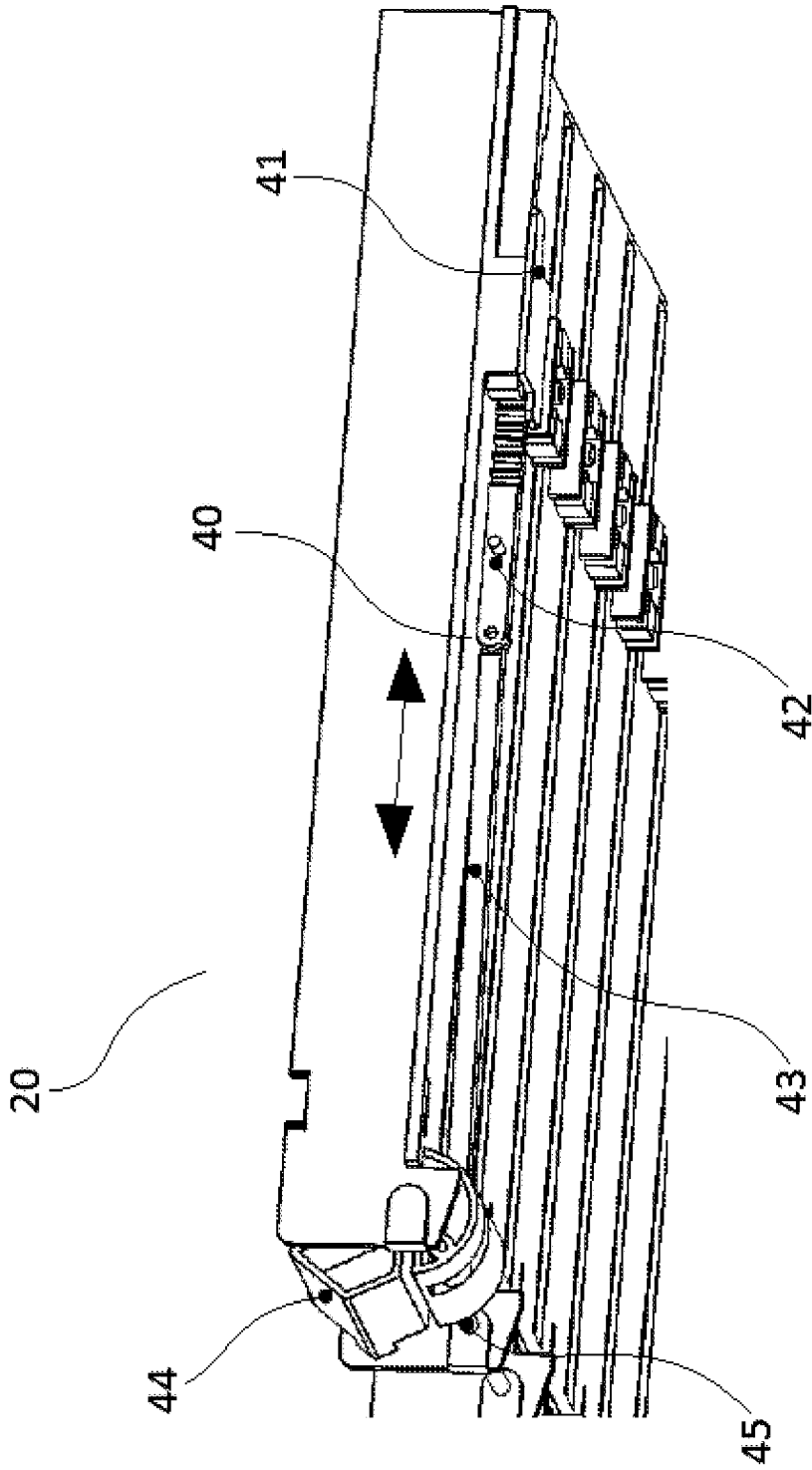


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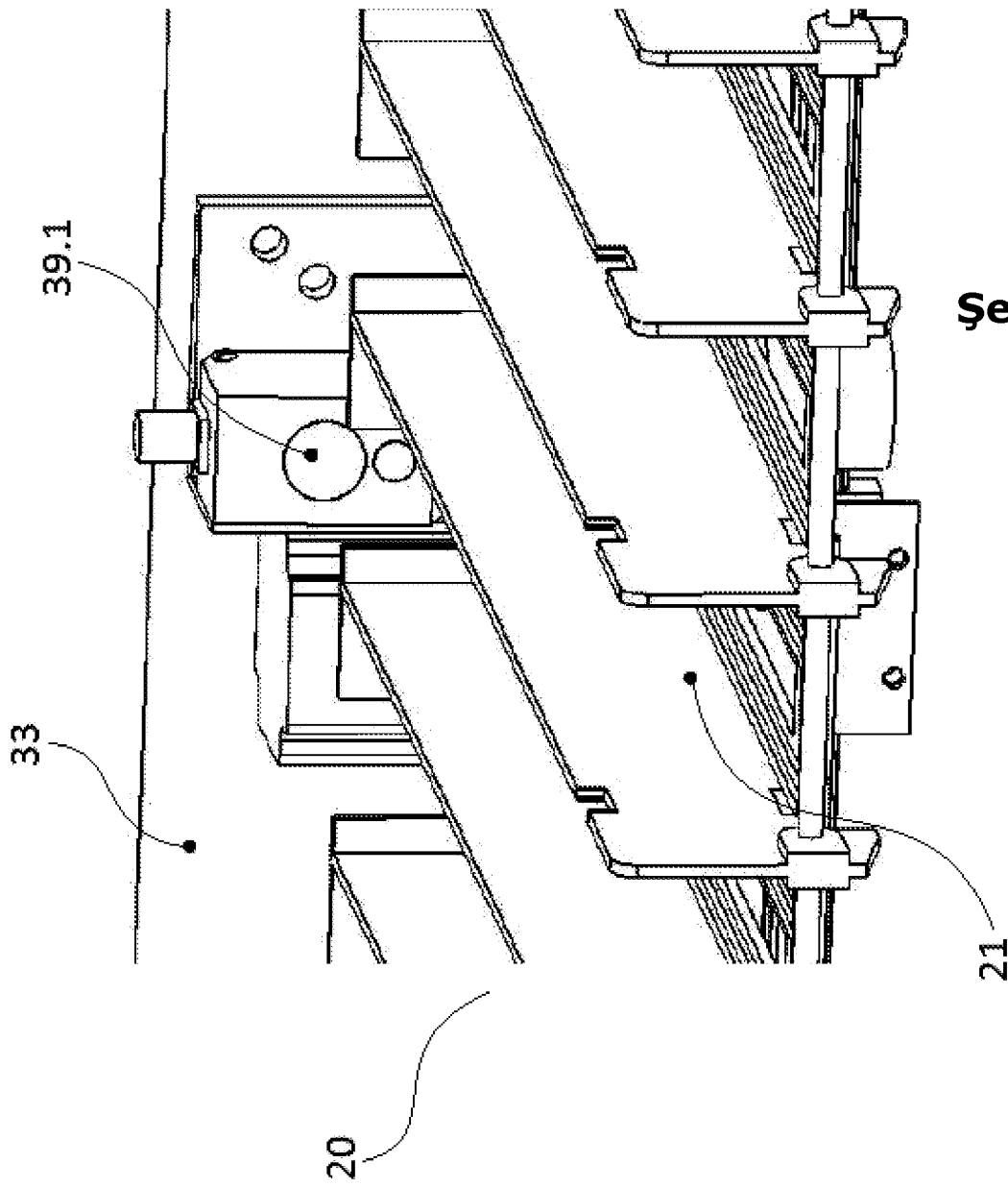


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**INTERNATIONAL SEARCH REPORT**

International application No PCT/TR2016/050189
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**A. CLASSIFICATION OF SUBJECT MATTER**  
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 ADD.  
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**B. FIELDS SEARCHED**  
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 G07F  
 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

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Date of the actual completion of the international search  20 September 2016	Date of mailing of the international search report  19/10/2016
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INTERNATIONAL SEARCH REPORT

International application No  
PCT/TR2016/050189

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

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