also is unfit for heat-treating portions of food pieces in rapid succession.

Said known oven for heat-treating portions of food pieces therefore has a relatively small capacity and a large space requirement.

The above-mentioned disadvantages of the prior art oven are according to the invention remedied by,

in an embodiment ~~first aspect~~ of the present invention providing an oven of the type mentioned in the opening paragraph in which a portion of food pieces quickly and easily can be heat-treated,

in another embodiment ~~second aspect~~ of the present invention providing an oven of the type mentioned in the opening paragraph which has a large capacity with a small space requirement,

in a further embodiment ~~third aspect~~ of the present invention providing an oven of the type mentioned in the opening paragraph by means of which portions of food pieces can be heat-treated in rapid succession,

in another embodiment ~~fourth aspect~~ of the present invention providing an oven of the type mentioned in the opening paragraph which can be operated in a simple and economical manner,

in another embodiment ~~fifth aspect~~ of the present invention providing an oven of the type mentioned in the opening paragraph which has a simple and inexpensive structure,

in another embodiment ~~sixth aspect~~ of the present invention providing an oven of the type mentioned in the opening paragraph which is not liable to break down during operation,

in another embodiment ~~seventh aspect~~ of the present invention providing an oven of the type mentioned in the opening paragraph in which the temperature during operation is sufficient low to secure that vaporized substances discharged from the food pieces during the heat treatment is not disintegrated,

in another embodiment ~~eighth aspect~~ of the present invention providing an oven of the type mentioned in the opening paragraph in which the heat source has a long lifetime.

~~The novel and unique features of the invention consists in~~In an aspect of the invention, there is provided an oven for by means of a heat source heat-treating food pieces placed on a grid in a cabinet, where the heat source and the grid is comprised by the oven, the grid consists of an upper part of an endless chain grate running around a number of chain supports of which a lower and upper support is defining a lower and upper end of said upper chain part, wherein the ~~fact the~~ oven comprises drive means adapted for bringing the upper chain part to move into the direction of the upper chain support during heat-treating of a portion of food pieces and into the direction of the lower chain support during discharging of the finished heat-treated food pieces.

This oven has, according to embodiments of the invention, a relatively large chain grate area and moreover a large discharge opening through which a forced discharging of the finished food pieces can take place.

Thereby is advantageously obtained an improved oven by means of which portions of food pieces quickly and easily and in a simple and economical manner can be heat-treated in rapid succession.

The oven also has a simple and inexpensive structure, which is not liable to break down during operation, and also has a long lifetime.

During operation is the temperature in the oven relatively low so that vaporized substances discharged from the food pieces during the heat treatment is not disintegrated.

Claims

1. An oven for by means of a heat source ~~(34)~~ heat-treating food pieces placed on a grid ~~(13)~~ in a cabinet ~~(1)~~, where the heat source and the grid is comprised by the oven, the grid consists of an upper part ~~(13)~~ of an endless chain grate ~~(2)~~ running around a number of chain supports ~~(4,5,6;42,43,44)~~ of which a lower and upper support ~~(4,5)~~ is defining a lower and upper end of said upper chain part, **characterized** in that the oven comprises drive means ~~(23,20,21,17)~~ adapted for bringing the upper chain part ~~(13)~~ to move into the direction of the upper chain support ~~(5)~~ during heat-treating of a portion of food pieces and into the direction of the lower chain support ~~(4)~~ during discharging of the finished heat-treated food pieces.

2. An oven according to claim 1, **characterized** in that at least one of the chain supports ~~(4,5,6;42,43,44)~~ is a rotateable roller ~~(42,43,44)~~.

3. An oven according to claim 2, **characterized** in that at least one rotateable disc ~~(60)~~ is placed at each side of the chain grate ~~(2)~~ between the lower and upper roller ~~(42,43)~~ in such way that the disc is leaning against the top side of the upper chain part ~~(13)~~.

4. An oven according to claim 3, **characterized** in that a part of the upper chain part ~~(13)~~ is extending along a curve which is following a length of arc of the periphery of the at least one rotateable disc ~~(60)~~.

5. An oven according to any of the claims 1 - 4, **characterized** in that the oven comprises a frame ~~(3)~~ for rotateable mounting the chain supports ~~(4,5,6;42,43,44)~~ the chain ~~(2)~~.

6. An oven according to claim 5, **characterized** in that the frame comprises the chain supports ~~(4,5,6;42,43,44)~~ and two side members ~~(8)~~.

7. An oven according to claim 5 or 6, **characterized** in that the frame ~~(3)~~ releasable is mounted in the cabinet ~~(1)~~.

8. An oven according to any of the claims 1 - 7, **characterized** in that the cabinet ~~(1)~~ comprises an access opening ~~(30)~~ and a cover ~~(31)~~ for at least during heat-treating of the food pieces covering the access opening.

9. An oven according to claim 8, **characterized** in that the access opening forms an angle with a horizontal plane.

10. An oven according to claims 8 or 9, **characterized** in that the cover ~~(31)~~ is mounted onto the cabinet ~~(1)~~ by means of at least one hinge ~~(32)~~.

11. An oven according to any of the claims 1 - 10, **characterized** in that the heat source ~~(34)~~ is mounted on the cover ~~(31)~~ and is facing the upper chain part ~~(13)~~ in the closed position of the cover.

12. An oven according to any of the claims 1 - 11, **characterized** in that the oven comprises an air exhauster ~~(36)~~ for generating a flow of air through the cabinet ~~(1)~~ at least during a heat-treating operation.

13. Use of the oven according to any of the claims 1 - 12 for heat treatment of food pieces, such as French Fries.