

ABSTRACT

The automatic flipping mechanism for food product is attached to a gas-operated griller **50**; and a motion controller.

The gas-operated griller **50** is a standard item and is available from commercial supplier.

The automatic flipping mechanism for food product has two units, one is stationary and while the other can move sideways. Both parts are fabricated using corrosion resistant material and the stationary unit **20** is attached with a few curved cams **40**. These cams are distributed at equal distances and allow the food product to be placed at a distance apart from one another. The movable unit **10** is attached with angled cams **30** and when it slides forward, the cams will push the food product against the curve-shaped cams **40**, which will then flip the food product. The flipping will complete when the movable unit **10** slides backwards.

The movements are controlled by means of an electrical motor **60** attached with a linear gearbox. An electrical circuit using electrical relays and timers is connected to determine the sequence of the sliding and limit switches are used to control the stroke of the movements.

Another aspect of the invention is the modular concept. Another set of flipping mechanism can be attached to the main flipping mechanism by means of a

connecting rod/s and the movements of the movable unit **10** can be transferred to it. This concept allows multiple grillers to be used with only one motion controller.

See Figure 1