

Description

[0001] The invention relates to an apparatus for manufacturing green bricks from clay for the brick manufacturing industry, comprising a circulating conveyor carrying mould containers combined to mould container parts, a reservoir for clay arranged above the mould containers, means for carrying clay out of the reservoir into the mould containers, means for pressing and trimming clay in the mould containers, means for supplying and placing take-off plates for the green bricks and means for discharging green bricks released from the mould containers. Such an apparatus is known in the field and is for instance described in the patent 1000186 of applicant. The known apparatus is extremely suitable for automated production of large numbers of green bricks for the brick manufacturing industry. The bricks fired from these green bricks have a substantially smooth, uniform appearance.

[0002] A recent demand has developed on the market for bricks which appear as if they have been manufactured according to traditional methods.

[0003] The invention has for its object to adapt the known apparatus such that it can produce in automated manner large numbers of green bricks with a traditional appearance.

[0004] For this purpose the apparatus according to the invention has the feature that the apparatus further comprises means for moving the mould container parts filled with green bricks such that a protruding edge is formed on at least one side of the green bricks.

[0005] The bricks fired from the green bricks produced using the apparatus according to the invention impart beautiful shadow effects to the wall into which they have been built when the sun shines thereon. This aesthetic effect is an important commercial advantage.

[0006] The edge-forming means are preferably adapted to move the mould container parts repeatedly for a certain period. Repetition a number of times, for instance three times, is found in practice to be sufficient to obtain the intended effect.

[0007] In a practical preferred embodiment the edge-forming means are adapted to move the mould container parts substantially transversely of the transporting direction.

[0008] In a further preferred embodiment the edge-forming means comprise a frame which is adapted to engage individually on a mould container part. This preferred embodiment has the significant advantage that the edge-forming means can act on one mould container part while another mould container part undergoes another operation and is for instance filled with clay. The edge-forming means can therefore be added to the known apparatus without this affecting the production time.

[0009] In yet another preferred embodiment the frame spans the mould container part and is provided on both sides with stop members which are situated

during operation at the location of the side walls of the mould container part. An exceptionally compact embodiment of the invention is hereby realized which utilizes the available space economically and can be arranged without difficulty on the known apparatus.

[0010] In order to prevent unnecessary damage to the mould container parts, these latter are provided on their side walls with stop surfaces, preferably of plastic. In preference the stop members of the frame of the edge-forming means are also provided with these, preferably plastic, stop surfaces.

[0011] The invention is described in more detail hereinbelow with reference to the drawing in which:

figure 1 shows schematically a preferred embodiment of the apparatus according to the invention; figure 2 shows in more detail a perspective view of a part of the apparatus of figure 1 with the edge-forming means therein; figure 3 shows the edge-forming means of figure 2 in even more detail; figure 4 is a perspective view of a first preferred embodiment of a mould container part which is suitable for use in the apparatus according to the invention; figure 5 is a perspective view of a second preferred embodiment of a mould container part; and figure 6 shows schematically a part of a wall which has been built using bricks provided with an edge and fired from the green bricks manufactured using the apparatus according to the invention.

[0012] Like components are provided in the figures with like reference numerals.

[0013] Figure 1 shows a preferred embodiment of an apparatus for manufacturing green bricks for the brick manufacturing industry according to the invention. Apparatus 1 comprises a conveyor 3. Mould containers combined to a unit are placed in the form of a mould container part 4 on the conveyor. The mould container parts fit closely against each other. Placed above the mould containers is a reservoir 5 for clay which is kept in continuous movement by an agitator 6 which is driven by the electric motor 7. Clay is supplied to reservoir 5 by a circulating conveyor 8. The clay is carried out of reservoir 5 into the mould containers and then pressed down by pressing device 9 which is pivotable on shaft 10. The excess clay is also trimmed using means which are not drawn. The device 11 carries take-off plates 12 onto a mould container part such that, after turning over of the mould container part, the green bricks 13 come to lie on the plates after being released from the mould containers.

[0014] Edge-forming means 22 are arranged between device 9 and device 11. The edge-forming means move each mould container part 4 such that a protruding edge forms on the upper side of the green bricks received therein.