

A METHOD OF MANUFACTURING MULTI-VARIETY NOODLES

FIELD OF THE INVENTION

This invention relates to a method and an apparatus of manufacturing multi-variety noodles.

BACKGROUND

Bagged wet-type instant noodles are known to have advantages in that they can be preserved at room temperature, and they can be turned into an edible state by retrogressing them with hot water within a shorter period of time as compared with dry type instant noodles such as fried noodles and dried noodles. Conventionally, the bagged wet-type instant noodles are manufactured by a process comprising the steps of mixing and kneading an alkaline agent and raw powders consisting mainly of wheat flour and starch thereby forming a dough, preparing a dough sheet from the dough, cutting the dough sheet into a plurality of noodles thereby obtaining raw noodles, boiling and steaming the raw noodles, treating the noodles with an acid solution after cooling the boiled noodles, packing the noodles in a bag made of heat-resistant resin film and heat treating the packed noodles thereby thermally sterilizing the raw noodles. This bagged wet-type instant noodles are usually packaged conveniently for a consumer by putting the bagged wet-type instant noodles together with a soup-containing bag and an ingredients-containing bag into a bowl made of, for example expanded polystyrene. When the wet-type instant noodles are to be eaten, the bagged instant noodles are taken out of the heat-resistant resin film bag and introduced into the bowl together with a soup from the soup-containing bag, and, after pouring hot water into the bowl, the whole mixture is left to stand for a period of time as short as one minute or so until it can be turned into an edible state. In contrast, in the case of fried noodles, the period of time is about three minutes of boiling the fried noodles in hot water.

However, most of the existing noodles are homogenous in flavour and colour and there exists a difficulty in manufacturing noodles having differing varieties, for example, flavours and colours so as to be more visually and gastronomically appealing to a consumer.

It is an objective of the present invention to provide a method and an apparatus of manufacturing noodles having a multiple of varieties, for example flavours, colours, and textures.

Other objects and advantages of the present invention will become apparent from the following description, taken in connection with the accompanying drawings, wherein, by way of illustration and example, an embodiment of the present invention is disclosed.

SUMMARY OF THE INVENTION

In accordance with a first aspect of the present invention, there is provided a method of manufacturing multi-variety noodles, comprises of:

- preparing a first and second raw material,
- disposing the first raw material in a first mixing device where the first raw material is mixed to form a first modified dough crumbs ,
- disposing the second raw material in a second mixing device where the second raw material is mixed to form a second modified dough crumbs,
- disposing the first modified dough crumbs into a first holding device, thereby forming the first hydrated dough crumbs,
- disposing the second modified dough crumbs into a second holding device, thereby forming the second hydrated dough crumbs,
- discharging the first and second hydrated dough crumbs from the first and second holding devices into a first and second hoppers respectively,
- disposing the first hydrated dough crumbs from the first hopper into a first compressing means, to form a first sheet of compressed dough crumbs, disposing the second hydrated dough crumbs from the second hopper into a second compressing means, to form a second sheet of compressed dough crumbs,
- disposing the second sheet of compressed dough crumbs onto a conveyor system and disposing the first sheet of compressed dough crumbs onto the second sheet of compressed dough crumbs, bonding the first sheet of compressed dough crumbs and the second sheet of compressed dough crumbs together to form a dough sheet, and
- disposing the dough sheet into a noodle slitter and forming the multi-variety noodles.

Preferably, the first sheet of compressed dough crumbs and the second sheet of compressed dough crumbs are bonded together by a compressing means.

Preferably, the first sheet of compressed dough crumbs and the second sheet of compressed dough crumbs are bonded by applying a binding agent in therebetween.

Preferably, the binding agent may be a liquid agent of polypropylene glycol, polyols, gums, starches or water.

Preferably, the first compressing means and second compressing means comprise at least one pair of rollers.

Preferably the method according to any one of the preceding claims, further comprising:

- disposing the noodles in an electrically heated air chamber,
- disposing the noodles in a batch chamber or continuous steamer,
- portioning the noodles into a predetermined weight,
- placing the noodles into a mould,
- molding the noodles into a predetermined shape and size in the mould,
- drying the noodles in an electrically heated air current or,
- frying the noodles in a heated edible oil, and
- packing the noodles with plastic film.

Preferably, the noodles are portioned to 60 grams to 120 grams.

Preferably, the mould is square or circular in shape.

Preferably, the electrically heated air current is circulating at 40°C to 70°C.

In accordance with a second aspect of the present invention, there is provided an apparatus for manufacturing multi-variety noodles, comprises of:

- at least one holding device for mixing a modified dough crumbs to form hydrated dough crumbs,

the holding device having a hopper at the bottom, whereby the hydrated dough crumbs are being discharged out of the holding device and subsequently into the hopper,

a compressing means below the hopper for receiving and compressing the hydrated dough crumbs, the hydrated dough crumbs forming a sheet of compressed dough crumbs,

a conveying means for receiving the sheet of compressed dough crumbs from the at least one compressing means, whereby the sheet of compressed dough crumbs, from the hoppers, are disposed on top of each other and forming a combined sheet of dough crumbs,

a further compressing means for compressing the combined sheet of dough crumbs and resulting in the formation of multi-variety noodles.

Preferably, there are four mixing devices.

Preferably, the compressing means comprise a pair of rollers.

BRIEF DESCRIPTION OF THE FIGURES

Further objects of this invention, together with additional features contributing thereto and advantages accruing therefrom, will be apparent from the following description of an embodiment of the present invention which is shown in the accompanying drawings with like reference numerals indicating corresponding parts throughout and which is to be read in conjunction with the following drawings, wherein:

Figures 1 and 2 illustrate a method of manufacturing multi-variety noodles in different embodiments of the present invention.

Figures 3 and 4 illustrate an apparatus of manufacturing multi-variety noodles in elevation view and plan view respectively in a preferred embodiment of the present invention;

Figures 5 and 6 illustrate an apparatus of manufacturing multi-variety noodles in elevation view and plan view respectively in another embodiment of the present invention.

These and additional embodiments of the invention may now be better understood by turning to the following detailed description wherein an illustrated embodiment is described.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Throughout this description, the embodiments and examples shown should be considered as exemplars, rather than limitations on the apparatus and methods of the present invention.

Method of the present invention

Turning to Figure 1, a flowchart is shown illustrating the steps in the manufacturing of the multi-variety noodles.

At step 101, a first raw material is prepared. The raw material may be any material suitable for the manufacture of noodles. For instance, the first raw material may contain an extract of plant or animal material, salted liquid agent and raw powders consisting of mainly wheat flour, starch and with or without powdered flavouring or food colorant materials. The first raw material is mixed homogenously in a mixing device (not shown), for instance a vertical or horizontal mixer or blender, to form a first modified dough crumbs at step 102.

At step 103, the first modified dough crumbs are first disposed into a first holding device, such as a dough sweeper. Over here, the first modified dough crumbs are further mixed in the first holding device to form a first hydrated dough crumbs.

At the bottom of the first holding device is a hopper attached thereto. After the first modified dough crumbs are further mixed to form the first hydrated dough crumbs, the first hydrated dough crumbs are discharged out of the first holding device and into the hopper at step 104. Subsequently, the hopper discharges the first hydrated dough crumbs into a first compressing means at step 105. The compression means may comprise a pair of rollers. At step 105, the first hydrated dough crumbs are compressed

to form a first sheet of compressed dough crumbs, for example a thinner individual sheet of about 4 to 6 mm in thickness.

Similarly, at step 106, a second raw material is prepared. The raw material may be any material suitable for the manufacture of noodles. For instance, the second raw material may contain an extract of plant or animal material, salted liquid agent and raw powders consisting of mainly wheat flour, starch and with or without powdered flavouring or food colorant materials. It should be noted that the second raw material should preferably be different from the first raw material, since the purpose of this invention is to manufacture noodles having more than one variety. The second raw material is mixed homogeneously in a mixing device (not shown), for instance a vertical or horizontal mixer or blender, to form a second modified dough crumbs at step 107.

At step 108, the second modified dough crumbs are first disposed into a second holding device, such as a dough sweeper. Over here, the second modified dough crumbs are further mixed in the second holding device to form a second hydrated dough crumbs.

At the bottom of the second holding device is a hopper attached thereto. After the second hydrated dough crumbs are further mixed to form the second hydrated dough crumbs, the second hydrated dough crumbs are discharged out of the second holding device and into the hopper at step 109. Subsequently, the hopper discharges the second hydrated dough crumbs into a second compressing means at step 110. The compressing means may comprise a pair of rollers. At step 110, the second hydrated dough crumbs are compressed to form a second sheet of compressed dough crumbs, for example a thinner sheet of about 4 to 6 mm in thickness.

Steps 101 to 105 and steps 106 to 110 are performed in concurrence with each other. However, it will be appreciated that they may be performed one after another. As shown in Figure 2 in another example embodiment of the present invention, steps 101 to 105 and steps 106 to 110 are performed one after another.

The compressed sheet of the second dough crumbs are then disposed preferably on a conveyor means or conveyor system and the compressed sheet of the first dough crumbs are disposed thereon at step 111.

To compress, the combined sheets of the first compressed dough crumbs and the second compressed dough crumbs are made to pass through a third compressing means at step 112. The third compressing means may comprise a pair of rollers. At step 112, the thickness of the combined sheets of the first compressed dough crumbs and the second compressed dough crumbs are reduced further by about 10% to 30%. The resulting product at this stage is a compressed thin sheet of dough sheet having one or more differing varieties. Examples of differing layers of varieties include colour, flavour and texture.

The thickness of the eventual dough sheet may be achieved by passing the dough sheet through rollers until the desired thickness is achieved. For example, the thickness of the compressed dough sheet may be reduced by a further 3 to 4 pairs of rollers, whereby a 10% to 30% of reduction of thickness may be achieved at each pair of rollers, depending on the type of noodles required by the manufacturer. For instance, the thickness of the compressed dough sheet may be reduced to about 0.8 mm to 1.8 mm.

After the desired thickness of the dough sheet is achieved, the dough sheet is passed through a noodle slitter, at step 113, where the dough sheet is cut into strings of noodles. Each string of noodles may be 20 cm to 30 cm long. The resulting product is multiple strings of noodles, each string of noodle having layers of different varieties.

It will be appreciated that the noodles may have more than two layers of varieties, depending on the requirement from the manufacturer or the needs of the consumers. In such a case, the number of layers of varieties will naturally tally with the number of raw materials used. For instance, if noodles with four layers of varieties are required by the manufacturer, four different types of raw materials will be used in the preparation of the raw material and the subsequent process steps will be similar to those discussed earlier.

An apparatus of the present invention

i) Preparation of raw materials and dough crumbs

Figure 3 shows an apparatus suitable for manufacturing multi-variety noodles.

A first raw material is prepared. The raw material may be any material suitable for the manufacture of noodles. For instance, the first raw material may contain an extract of plant or animal material, salted liquid agent and raw powders consisting of mainly wheat flour, starch and with or without powdered flavouring or food colorant materials. The first raw material is mixed homogenously in a mixing device (not shown), for instance a vertical or horizontal mixer or blender, to form a first modified dough crumbs 1a.

The first modified dough crumbs 1a are first disposed into a first holding device 2a, such as a dough sweeper. Over here, the first modified dough crumbs 1a are further mixed to form the first hydrated dough crumbs.

As will be apparent by a person skilled in the art, the actual constituents of the raw material will be dependent on a manufacturer's desire of an end product. For example, should a multi-variety noodles of differing colours be desired, then the difference in the raw material constituents will be the food colorant. Or, should differing flavours be desired, then the difference in the raw material constituents will be the flavouring.

Similarly, a second raw material is also prepared. The raw material may be any material suitable for the manufacture of noodles. For instance, the second raw material may contain an extract of plant or animal material, salted liquid agent and raw powders consisting of mainly wheat flour, starch and with or without powdered flavouring or food colorant materials. It should be noted that the second raw material should preferably be different from the first raw material, since the purpose of this invention is to manufacture noodles having more than one layer of variety. The second raw material is mixed homogenously in a mixing device (not shown), for instance a vertical or horizontal mixer or blender, to form a second modified dough crumbs 1b.

The second modified dough crumbs 1b are first disposed into a second holding device 2b, such as a dough sweeper. Over here, the second dough crumbs 1b are further mixed to form the second hydrated dough crumbs.

ii) Compression of the first and second dough crumbs

The first modified dough crumbs 1a are first disposed into a first holding device 2a, such as a dough sweeper. Over here, the first modified dough crumbs 1a are further mixed to form the first hydrated dough crumbs.

At the bottom of the first holding device 2a is a hopper 3a attached thereto. After the first modified dough crumbs are further mixed to form the first hydrated dough crumbs, the first hydrated dough crumbs are discharged out of the holding device 2a and into the hopper 3a. Subsequently, the hopper 3a discharges the first hydrated dough crumbs into a first compressing means 4a. The first compressing means 4a may comprise a pair of rollers. Over here, the first hydrated dough crumbs are compressed to form a first sheet of compressed dough crumbs, for example a thinner individual sheet of about 4 to 6 mm in thickness.

Similarly, the second modified dough crumbs 1b are first disposed into a second holding device 2b, such as a dough sweeper. Over here, the second modified dough crumbs 1b are mixed to form the second hydrated dough crumbs.

At the bottom of the second holding device 2b is a hopper 3b attached thereto. After the second modified dough crumbs are further mixed to form the second hydrated dough crumbs, the second hydrated dough crumbs are discharged out of the second holding device 2b and into the hopper 3b. Subsequently, the hopper 3b discharges the second hydrated dough crumbs into a second compressing means 4b. The compressing means 4b may comprise a pair of rollers. Over here, the second hydrated dough crumbs are compressed to form a second sheet of compressed dough crumbs, for example a thinner sheet of about 4 to 6 mm in thickness.

The compressed sheet of the second hydrated dough crumbs are then disposed preferably on a conveyor means or conveyor system 5 and the compressed sheet of the first hydrated dough crumbs are disposed thereon.

To compress, the combined sheets of the first compressed dough crumbs and the second compressed dough crumbs are made to pass through a third compressing means 4e. The third compressing means 4e may comprise a pair of rollers. Over here,

the thickness of the combined sheets of the first compressed dough crumbs and the second compressed dough crumbs are reduced further by about 10% to 30%. The resulting product at this stage is a compressed thin sheet of dough sheet 6 having one or more differing varieties. Examples of differing layers of varieties include colour, flavour and texture.

The thickness of the eventual dough sheet 6 may be achieved by passing the dough sheet 6 through rollers until the desired thickness is achieved. For example, the thickness of the compressed dough sheet 6 may be reduced by a further 3 to 4 pairs of rollers, whereby a 10% to 30% of reduction of thickness may be achieved at each pair of rollers, depending on the type of noodles required by the manufacturer. For instance, the thickness of the compressed dough sheet may be reduced to about 0.8 mm to 1.8 mm.

After the desired thickness of the dough sheet 6 is achieved, the dough sheet 6 is passed through a noodle slitter (not shown), where the dough sheet 6 is cut into strings of noodles. Each string of noodles may be 20 cm to 30 cm long. The resulting product is multiple strings of noodles, each string of noodles having differing layers of varieties.

It will be appreciated that the noodles may have more than two layers of varieties, depending on the requirement from the manufacturer or the needs of the consumers. In such a case, the number of varieties will naturally tally with the number of raw materials used. For instance, as shown in figures 5 and 6, if noodles with four layers of varieties are required by the manufacturer, four different types of materials will be used in the preparation of the raw material and the subsequent process steps will be similar to those discussed earlier.

iii) Final processing and packaging of the noodles

The string of noodles is then placed in an electrically heated air chamber of about 40°C to 70°C for a duration of about 3 to 6 hours. As a result, the moisture of the noodles is reduced to about 8% to 10%, and the resulting product is air-dried raw noodles.

The string of raw noodles may be disposed into a continuous steamer or an enclosed batch chamber filled with heated moist steam, in order to completely gelatinize the starch therein so as to bind the dough layer in the noodles more firmly together. Thereafter, the gelatinized noodles may be cut into a length of about 20 cm to 30 cm and

subsequently packed as fresh steamed noodles. An advantage of fresh steamed noodles is its stable form and its resistance to splitting or separating into individual dough layers.

The fresh steamed noodles may be portioned into about 60 grams to 120 grams and placed into square or circular moulds where it is compressed to a pre-determined height and width. Subsequently, the noodles are then dried in an electrically heated air current circulating at 40°C to 70°C for about 3 hours to 6 hours. In an alternative, for fried instant noodles, the steamed noodles are fried in heated edible oil. Subsequently, the noodles are then individually packed, preferably by wrapping them with a thin film or shrink wrapped with plastic film such as polypropylene film. An advantage of the air-dried steamed noodle is its long shelf life under normal room temperature.

Other embodiments of the present invention

i) Preparation of raw materials and dough crumbs

To produce multi-flavoured noodles, the raw material may contain modified starch, such as potato, tapioca, maize or wheat origin in another embodiment of the present invention. The modified starch may be used at a dosage of about 0.1% to 20% based on the weight of the wheat flour. By adding 1% to 5% propylene glycol and modified starch, smoothness and improvement in the binding capacity on the interface layers of the multi-variety noodles. Further, it also minimizes the separation of the individual layers upon drying, re-hydration, boiling or cooking process.

The raw material may also contain flavouring compounds derived from plant, animal origins or chemically produced concentrate liquids or powders. Freshly compressed plant extracts such as spinach, pandan, carrots, fruit purees, etc, provide the natural flavour found in the plant in conjunction with the colorant compounds in these extracts. Powdered flavouring compounds of plant origin are in dried or semi-processed forms such as pumpkin, sesame, spices, wasabi, cocoa, coffee, pickles, etc. These compounds also contribute to both the natural flavours and natural colorants. Raw materials or semi-processed animal origins such as squid ink, fish meals, seafood extracts, fermented foods, poultry products, dairy products, etc are suitable flavoring compounds that could be used in the multi-variety noodle products. Other nutritional

supplements such as amino acids, vitamins, minerals, fibers, and complex and resistant starches are used to improve the nutritional value of the multi-variety noodles.

To produce multi-coloured noodles, the raw material may also contain food colorants that provide the visually different layers, which are derived from synthetic, nature-identical or natural colorants of plant, animal or inorganic origins. Forms of food colorants include the paste, powder, granular, liquid, concentrates, etc. of the dyes or lakes variants are used. The concentrates or liquid colorants are to be dispersed or dissolved in water and if in powder or granulated forms, they are to be dry-blended with wheat flour prior to using them in dough crumb development.

The mixing of the raw materials in the mixer, for example the crumb mixer, may be carried out under ambient or reduced atmospheric pressure. The crumb mixers may be a vertical or ribbon-type horizontal mixers. Dry ingredients such as wheat flour, gluten, colorants and flavoring powders, which are dry-blended for at least 1 to 2 minutes before the liquid ingredients may be discharged into the same mixer. The soluble or immiscible liquid ingredients may be added to a tank containing water and dispersed by shearing with a homogeniser or stirrer. The soluble ingredients such as salt, alkaline agents, polyphosphates, propylene glycol, etc together with the other immiscible agents such as oil-based food colorants are dispersed in water prior to discharging them into the crumb mixers. The crumb mixers are capable of distributing the liquid agent uniformly throughout the dry ingredients and hydrating these dry ingredients. Hydration of the dry ingredients is essential to develop the wheat gluten partially forming the dough crumbs capable of forming into dough sheets.

ii) Compression of the dough sheets

The dough crumbs may be bonded together by other methods, besides the compression methods discussed earlier, where the second sheet of compressed dough crumbs are disposed preferably on a conveyor system and the first sheet of compressed dough crumbs are disposed thereon. To compress, the combined sheets of the first compressed dough crumbs and the second compressed dough crumbs are made to pass through a third compressing means. The third compressing means may comprise a pair of rollers. Over here, the thickness of the combined sheets of the first compressed dough crumbs and the second compressed dough crumbs are reduced further by about

10% to 30%. The resulting product at this stage is a compressed thin sheet of dough sheet 6 having one or more differing layers of varieties. Example of differing layers of varieties includes colour, flavour and texture.

In other example embodiments of the present invention, the dough sheet may be bonded together by applying a binding agent in between the first and second sheet of compressed dough crumbs, for instance by spraying the liquid agent of polypropylene glycol, polyols, gums, starches, water, etc. This method is applicable preferably for raw materials, which do not contain the binding agent in the first place.

iii) Final processing and packaging of the noodles

The string of noodles can also be packaged as non-fried multi-variety instant noodles in another example embodiment of the present invention. Non-fried multi-variety instant noodles may be produced by wet steaming the multi-variety noodles and subsequently expanding them with formulation aids such as leavening chemicals for instance, calcium carbonate and / or baking powders, dried under heated air, cooled and packed in bulk or individually with or without seasonings.

In yet another embodiment of the present invention, the string of noodles is packaged as multi-variety instant noodles. Multi-variety instant noodles are produced by deep oil frying of the steam gelatinized noodles in an individually enclosed stainless steel mould of about 60 grams to 120 grams and subsequently submerging it into heated oil bath at about 160°C to 180°C for about 60s to 180s. The multi-variety instant noodles are then air-cooled and packed in bulk or individually with or without seasonings.

A sample example of the present invention

i) Pumpkin as the first flavour of the noodles

The percentage composition of the raw material (Pumpkin) is as follows:

Wheat flour (10 – 12% protein)	100 %
Modified starch	0.5 %
Table salt	2 %
Propylene glycol	1 %
Vital gluten	0.5 %
Pumpkin powder	10 %

Riboflavin colorant	0.1 %
Water	31 %

ii) Spinach as the second flavour of the noodles

The percentage composition of the second raw material (Spinach) is as follows:

Wheat flour (10 – 12% protein)	100 %
Modified starch	0.5 %
Table salt	2 %
Propylene glycol	1 %
Vital gluten	0.5 %
Spinach extract	20 %
Leaf green colorant	0.2 %
Water	31 %

iii) Paprika as the third flavour of the noodles

The percentage composition of the third raw material (Paprika) is as follows:

Wheat flour (10 – 12% protein)	100 %
Modified starch	0.5 %
Table salt	2 %
Propylene glycol	1 %
Vital gluten	0.5 %
Paprika powder	3 %
Paprika colorant	0.2 %
Water	31 %

Over here, noodles having the above three flavour is required by the manufacturer. It should be noted that the subsequent process steps will be similar to those discussed earlier.

Although exemplary embodiments of the present invention have been shown and described, it will be apparent to those skilled in the art that a number of changes, modifications, or alternations to the invention as described herein may be made, none of which depart from the spirit of the present invention. All such changes, modifications and alterations should therefore be seen as within the scope of the present invention.

Claims

1. A method of manufacturing multi-variety noodles, comprising of:
 - preparing a first raw material and second different raw material,
 - disposing the first raw material in a first mixing device where the first raw material is mixed to form a first modified dough crumbs,
 - disposing the second raw material in a second mixing device where the second raw material is mixed to form a second modified dough crumbs,
 - disposing the first modified dough crumbs into a first holding device, thereby forming the first hydrated dough crumbs,
 - disposing the second modified dough crumbs into a second holding device, thereby forming the second hydrated dough crumbs,
 - discharging the first and second hydrated dough crumbs from the first and second holding devices into a first and second hoppers respectively,
 - disposing the first hydrated dough crumbs from the first hopper into a first compressing means, to form a first sheet of compressed dough crumbs,
 - disposing the second hydrated dough crumbs from the second hopper into a second compressing means, to form a second sheet of compressed dough crumbs,
 - disposing the second sheet of compressed dough crumbs onto a conveyor system and disposing the first sheet of compressed dough crumbs onto the second sheet of compressed dough crumbs, bonding the first sheet of compressed dough crumbs and the second sheet of compressed dough crumbs together to form a dough sheet, and
 - disposing the dough sheet into a noodle slitter and resulting into the formation of multi-variety noodles.
2. The method according to claim 1, wherein the first raw material and the second different raw material are different in colour, taste and/or texture, whereby the multi-variety noodles comprise two or more colours, tastes and/or textures.

3. The method according to claim 1 or 2, wherein the first sheet of compressed dough crumbs and the second sheet of compressed dough crumbs are bonded together by a compressing means.
4. The method according to claim 1 or 2, wherein the first sheet of compressed dough crumbs and the second sheet of compressed dough crumbs are bonded by applying a binding agent in therebetween.
5. The method according to claim 4, wherein the binding agent may be a liquid agent of polypropylene glycol, polyols, gums or starches.
6. The method according to any one of the preceding claims, wherein the first compressing means and second compressing means comprise at least one pair of rollers.
7. An apparatus for manufacturing multi-variety noodles, comprising:
 - two or more holding devices for mixing two or more different modified dough crumbs to form two or more different hydrated dough crumbs,
 - each of the holding devices having a hopper at the bottom, whereby each respective hydrated dough crumbs are discharged out of the respective holding device and subsequently into the hoppers,
 - respective compressing means below each respective hoppers for receiving and compressing the respective hydrated dough crumbs to form respective sheets of compressed dough crumbs,
 - a conveying means for receiving the respective sheets of compressed dough crumbs from the respective compressing means, whereby the respective sheets of compressed dough crumbs, from the respective compressing means, are disposed on top of each other and forming a combined sheet of dough crumbs,

a further compressing means for compressing the combined sheet of dough crumbs and resulting in the formation of multi-variety noodles.

8. The apparatus according to claim 7, wherein the compressing means comprise a pair of rollers.