

ALIEN PROPERTY CUSTODIAN

PRESERVED FOODSTUFFS

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The invention relates to a preserved food stuff consisting in a fish paste and to a method of producing same.

It is an object of the invention to produce a fish paste as a preserved or preservable food stuff, production of which is very simple and cheap and which can easily be produced in large quantities for popular food.

It is a further object of the invention to produce a fish paste with a high working efficiency so that only a low percentage of the raw material, i. e. the fish, will be lost during treatment.

It is a further object of the invention to produce a fish paste which can be spread on bread easily.

Another object of the invention is in so performing the method of producing the fish paste that practically all kinds of fish can be used, also when mixed together, which simplifies production and makes it easier to keep the product uniform and the production more independent from the kind of fish caught and marketed.

"Fish" is to be considered in this respect to be an indication of substance.

Some kinds of fish paste are already known, but only as rather expensive delicacies. Anchovy paste (e. g. in collapsible containers), herring paste, salmon paste may be mentioned in this respect.

According to the invention fish is cooked and finely desintegrated thereupon in an unboned condition, i. e. without removing the bones. Preferably the fish is gutted before cooking. Different kinds of fish as well as e. g. parts of fishes can be worked up. Also certain parts of the fishes (head, fins) may be removed before. When the fish is very small or thin gutting would be very difficult and then this often may be omitted. Also when it will not affect the taste or flavour or the preserving qualities of the fish paste if the bowels or guts are left in the fish gutting is not necessary.

It is of fundamental importance for the invention that the cooked fish is desintegrated or crushed in an unboned condition. By doing so the refuse or waste matter in the first place is considerably restricted because on the one hand the bones themselves are not wasted but on the other hand also other parts of the fish, which otherwise would adhere to the bones when removing the latter from the fish (which moreover always is a difficult and often even a rather impossible job) are not lost as yet. Especially due to this the high working efficiency as referred to is obtained.

Desintegrating in unboned condition furthermore has the great advantage that the paste thereafter will be self gelatinizing (due to the gelatinizing substances in the bones) so that without additional measures the mass will get the desired character and consistency of a paste product.

It was known indeed in working up fish to desintegrate same, but not when cooked and in unboned condition and as far as I am aware not for human food so as to make the fish useful entirely for this purpose.

When carrying the invention into effect cooking can be done in different ways. Preferably it will be done in such a manner that only a small quantity of water is left after cooking as in this water useful components could be lost. The fish also may be cooked in its own humidity, preferably by means of steam, e. g. in a jacketed pan. "Cooking" means here cooking in the presence of water but in the substantial absence of e. g. additionally added oil.

Desintegrating cooked fish in an unboned condition is rather difficult as it forms a very tough mass. Moreover the bones have the tendency of being freed from the meat and then it is extremely difficult to crush the bones so finely that the public will not find any parts thereof in the paste, which nevertheless is absolutely necessary.

I have found that desintegration can be done satisfactorily by a rotary desintegrating mill of the kind in which beating arms rotate within a cylindrical chamber (impact pulverisation). The beating arms rotate with a high number of revolutions per unit of time and the cylindrical wall of the chamber is formed by a perforated plate or has a similar structure. The process of desintegration in this machine is performed very quickly.

The most characterizing feature of the invention thus particularly is that nothing is lost. Especially the fat contents of the product is high whereas in other processes of treating fish to make preserved food stuffs fat is often lost.

The paste according to the invention can be treated with salt and/or vinegar and if desired spiced or taste or flavour substances may be added. Sometimes some colouring substances are desirable. In normal cases salt to 5% of the weight of the fresh fish is added. Salt in this quantity cannot be considered as a preserving agent. In most cases, however, when applying the invention, no salt preserve is desired and therefore in general salt will not be added in a quantity in excess of the said quantity of 5%.

Vinegar e. g. can be used in a quantity up to 10% (of a concentration of 10%).

Preservation of the product is desired and can be achieved in different ways. Sterilization or at least pasteurization by a heat treatment is possible, but makes the process and the packing expensive. The addition of a preserving agent instead of said treatment is possible and often advantageous. Good results are attained by the addition of ½% benzoic acid (if desired in benzoic acid compounds or derivatives), in so far as permitted by the law.

In general the salt, the vinegar, the preserving agent, etc. will be added before cooking.

Disintegration or crushing can be achieved so quickly that the paste thereafter has a rather high temperature still, but cooling setting in thereafter and gelatinizing due to it will interfere with filling in of the paste into the packing container. For this reason it is preferred to reheat the paste after disintegration, e. g. up to the boiling temperature which is also favourable for its sterility.

Packing must be done carefully particularly as to sterility. The kind of packing containers mostly used will be glass containers or tins or cans. In the latter event of course the acidity of the product must be taken into account. Careful cleaning (making sterile) of the containers before the paste being filled in is necessary especially when no reesterilization is practised. Also measures against fungi on the surface of the paste (e. g. when glass containers having a screwing cover are used) are often desirable.

Furthermore packing can occur according to the invention by surrounding the paste with a skin in the form of a sausage. For this type of packing natural or artificial bowels, the latter having a joint in their lengthwise direction or not, may be used and they are tied up as usual in making sausage. In this way sausages are produced which look very good, are very appetizing and furthermore are very suited as a food stuff.

If the paste produced in the manner above described is not sufficiently stiff for making sausages the paste may be dried by evaporating water from it. The paste then obtained is very stiff, tough and fatty and particularly suited for making sausages.

Often it will be desirable to colour the paste, especially when making sausages and it may be used a reddish brown colouring agent in order to imitate in this respect ordinary smoked sausages.

Freshly made sausages again can be cooked during some minutes which already is of importance for its preservation. Thereupon the sausages can undergo a smoking process. When the sausages are smoked during somewhat two hours they will get the characteristic smoke-taste and flavour.

Sausages made according to the invention may be cut in slices, may be baked, roasted, fried or grilled and even croquets may be made thereof.

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