

UNITED STATES PATENT OFFICE.

JOHN MEYENBERG, OF BUENAPARK, CALIFORNIA.

PROCESS OF PREPARING FOODS.

SPECIFICATION forming part of Letters Patent No. 677,159, dated June 25, 1901.

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To all whom it may concern:

Be it known that I, JOHN MEYENBERG, a citizen of the United States, residing in Buena-
park, in the county of Orange and State of
5 California, have invented certain new and
useful Improvements in Processes of Producing
a Food Product For Infants and Invalids,
of which the following is a specification.

This invention relates to an improved process
10 of making a food or alimentary preparation
for infants, invalids, and others in which
are combined the nutritious constituents of
cow's milk and a suitable cereal; and the invention
15 consists in removing the cream from
cow's milk, removing the casein from the resulting
skimmed milk, boiling the whey thus obtained
with a dry crushed unmalted cereal, filtering
20 the resulting solution of whey and cereal extract,
steeping the boiled grains in water, adding the
gruel thus obtained to the solution of whey and
cereal extract, boiling the mixture, adding to
the same a quantity of fresh cream and sugar
25 and a quantity of fresh-boiled cow's milk from
which the cream and casein has not been removed,
gradually heating the entire mixture to 175°
Fahrenheit, and finally concentrating the same.

In carrying out my improved process of
30 making a pure food product suitable for infants
and invalids fresh cow's milk is employed.
From the entire quantity of milk taken, which
may be, for example, one thousand two hundred
35 pounds, the cream (about one hundred and
eighty pounds) is removed in any suitable manner,
and from the resulting skimmed milk, which,
allowing for any small losses in the process,
may be placed at one thousand pounds, the casein
40 (one hundred and ten pounds) is separated.
The whey (say, eight hundred and ninety pounds)
remaining after the separation of the casein is
then heated to boiling temperature. To this
eight hundred and ninety pounds of boiling
45 whey is added about one and one-half to two
per cent. (twelve to twenty pounds) of a dry,
rolled, or crushed unmalted cereal—such as
oats, barley, or wheat. The boiling of the
whey is continued until the nutritious constituents
50 of the cereal are extracted from the grains and
dissolved in the whey. The solution is then
filtered through a suitable cloth,

which retains the boiled grains, together with
any traces of casein which may not have been
55 removed in the step of removing the casein
from the skimmed milk. The mass of boiled
grain acts as a filter for retaining any such
remaining casein. The grains are then steeped
in boiling water, (preferably distilled water,)
60 so as to dissolve any remaining traces of their
nutritive constituents. It is found that in
practice this steeping yields a gruel containing
much of nutritive value, it appearing that
the valuable constituents of the grain employed
65 are not entirely extracted by the first
boiling in the whey, but that a further and
valuable extract is obtained by a subsequent
steeping in water. The gruel formed by the
steeping of the grains in water is then filtered
70 off, leaving behind the worthless bran of the
grain. To the solution of whey and cereal extract
first obtained this gruel is now added and the
mixture well boiled for some time. It is
then mixed with a quantity (about three hundred
75 pounds) of fresh-boiled milk from which
the cream and casein have not been removed.
It is preferable to add at this stage of the process
a quantity of cream about equal to that originally
80 removed, (one hundred and eighty pounds,)
thereby increasing the proportion of fat in the
food. A small quantity of sugar—say two and
one-half per cent. or about thirty pounds—for
sweetening the mixture is also preferably added
85 at this stage. The solution is then gradually
heated to 175° Fahrenheit or over, after which
the milk is transferred into a suitable heating
apparatus which is connected with the vacuum-pan,
in which apparatus it is subjected to heat above
90 the boiling-point, so that a preliminary
sterilization of the uncondensed milk is obtained
before the same is transferred to the vacuum-pan.
By this preliminary heating any bacilli which
may be contained in the milk are killed, and
95 as the heating apparatus is connected directly
with the vacuum-pan the formation of new
bacilli is prevented. The milk is then drawn
off into the vacuum-pan and concentrated therein
to the required consistency. When the latter is
100 reached, the product is drawn off into jars or
tins and sterilized in the usual manner.

My improved food product contains the nutritious
constituents of the milk and cereal