THE CONFECTIONERS' HAND-BOOK.

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 Fourth Edition.] [Price 7s. 6d.; Postage 4d.]

THE

CONFECTIONERS' HAND-BOOK

AND

PRACTICAL GUIDE

TO THE

ART OF SUGAR BOILING

In all its branches.

The Manufacture of Creams, Fondants, Liqueurs, Pastilles, Jujubes (Gelatine and Gum), Comfits, Lozenges (Plain and Medicated), Chocolate, Chocolate Creams, Drops, Bars, &c.; American Caramels, Ice Creams and Moulded Ices of every description;

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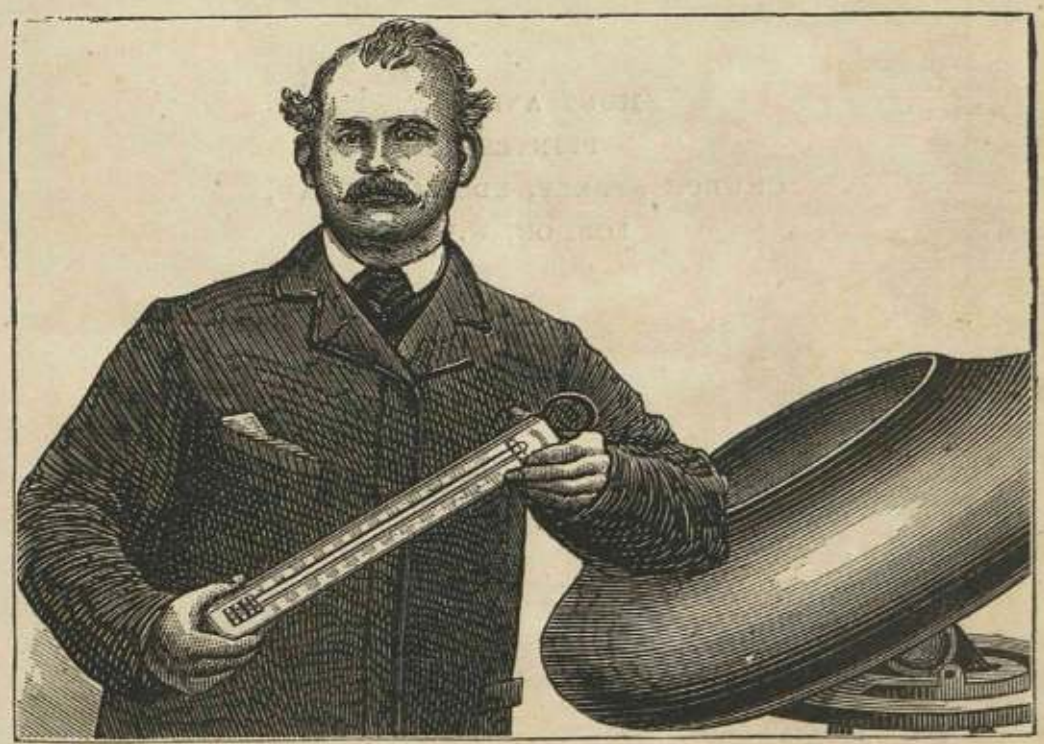

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About One Hundred Illustrations.

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INTRODUCTION.

In presenting the fourth edition of the Confectioner's Hand-Book, I take the opportunity of thanking my subscribers for the uniform kindness, support, and indulgence I have received at their hands. Had it not been for the encouragement and recommendation of my former customers, who readily condoned all my sins of omission and commission in a grammatical sense, I certainly would not have presumed to have thrust a book of this dimensions on the market. I hope my sense of gratitude and appreciation will be seen throughout every page of this volume by the recipes and instructions being comprehensive, practical and *correct*. I have endeavoured, with the assistance of shop-mates, to give details of every new process, and the rudiments of every branch, also hints and suggestions to assist the learner in striking into new fields, and adding these articles ever in demand—*novelties*. Further information in any particular branch will be readily and freely given, on receipt, from a subscriber, of a stamped directed envelope.

E. SKUSE,
Practical Confectioner,
Confectioner's Machinist & Mineral Water Engineer,
30, Praed Street,
London, W.

P.S.—In selecting a particular recipe from this hand-book, if unacquainted with the business, it is advisable to read not only the recipe, but the general instructions to the class of goods it forms part of; for instance, should you want to make French almond rock, read all that appertains to the sugar boiling branch, especially the degrees of sugar boiling; if musk lozenges, read instructions for lozenge making; better still, read through the book.

CONTENTS.

SUGAR BOILING.

The importance of this branch must be obvious to every one who has the slightest knowledge of the confectionery business, this method of cooking sugar, although, perhaps the most ancient, is still the most popular of our modern processes, and sweets which were a luxury to our ancestors, is now almost a necessary to the present generation. Notwithstanding appliances for the manufacture of sweets which have been recently introduced, and the many different methods of producing and manipulating sugar goods, the old style of *sugar boiling* has not been superceded, in fact, the extent of our modern inventions may be said to have simply added variety. There are several features connected with sugar boiling, which make it an important branch to be studied by most people who sell either wholesale or retail.

1st.—Because they have a ready sale.

2nd.—Because they are easily made, and the tools necessary are few, simple and inexpensive.

3rd.—Because when fresh made they are much better in consistency, flavour, and appearance.

4th.—Because boiled sugars as a rule require to be kept air tight and are consequently packed in bottles, which are almost as heavy as the contents, this doubles the cost of carriage, besides, there is the additional expense and trouble of repacking empties and returning to manufacturers, together with the annoyance of breakages.

There are several other reasons which might be urged in favour of shopkeepers, &c., going in for making their own toffees, drops, and the like, as it gives a character to their business, a fascinating odour to their premises, with the privilege of using the title of "manufacturer" on the sign board. No goods, perhaps look so tempting to the general public, when attractively displayed in a cheerful window, than a variety of fresh made goods of this class, the stock can only be kept good by those who make their own, as the moment they begin to fade or look dull, they can be taken from the window, broken up and reboiled with

no more loss than the time and trouble of reboiling, this gives the vendor a wonderful advantage over those who *buy all*, as they are compelled to keep such goods figuring in their windows long after they have ceased to be either ornamental or palatable. The information given in these pages are written with a view of initiating those interested into the mysteries of the confectioners art, but a great deal must depend upon the learner himself or herself, the writer has explained the whole art as clear as it is simple, but practiceal one will make proficiency. Many might say, why I cannot find half the things in this book I see in different shops, that is quite true, because many new goods are introduced every day, and I hope the reader will in his turn be noted for his ingenuity in bringing such goods periodically to the front, as will secure him a large sale with a wide connection. In the pages of this book are explained all the different branches which sweet making may be properly divided into, with instructions for working them out, and if new goods are wanted to be imitated, the learner after a fair course of study and practice, should be able after looking at and examining such novelties to go straight to his stove and produce them to a nearness. Almonds, cocoa nuts, jams, and all kinds of dried and green fruits are used by the confectioner, together with the different colours, flavours, and machines to make varieties, which to describe, or even to enumerate would form a cumbersome volume, more noted for size than utility.

THE WORKSHOP.

Now, before we start to boil sugar it will be necessary to have some where to boil it, a fire to boil it on, and a pan to boil it in. Of course the size and convenience, as well as the necessary tools, will depend upon the requirements of the trade which it will be required to supply. As I find my book finds its way into very small confectioneers' hands whose requirements are limited to making a little toffee, rock, &c., for their retail shops), as well as into factories, where workmen are eager to find the newest goods and the latest improvements in machinery for making them. Now, suppose I begin with the requirements of the smallest before describing a model sugar boiling room.

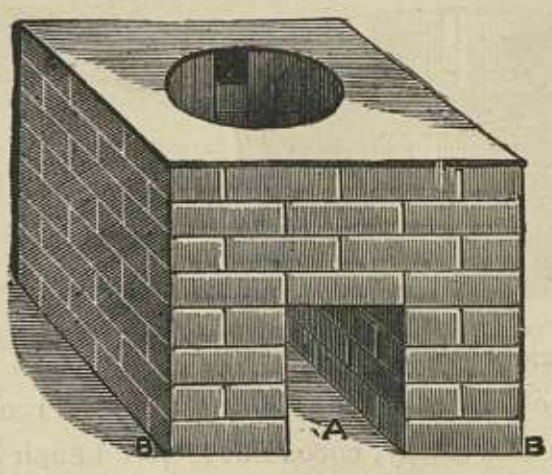
Sugar may be boiled in either an iron or copper pan, the latter of course preferred ; still where circumstances make it imperative to be

economical an iron saucepan (in Scotland called a goblet) will do very well. It may be boiled on an ordinary fire-grate, although a sugar boiler's furnace or stove is much to be preferred. The next thing is,

when the sugar is ready, we must have somewhere to pour it in or on, according to what we want to make, if it is almond rock, almond toffee, Everton toffee, cocoa nut candy, cocoa nut ice, and such like, two or three tins will be sufficient; the cost at any tinsmith's would be but a few pence. This is a good, convenient size—15in. long, 10in. wide, and 1in. deep, made of good stout tin with wire round the top to make it strong, but for rocks, drops, and hand cut goods it would be almost necessary to have a small cast iron pouring plate, say 3ft. long by 1ft. 8in. wide; this plate will hold from 12lb. to 14lb. of sugar at a time, and in the event of it getting hot from pouring on successive boilings, simply pour on it a couple of quarts or so of cold water, in a few minutes knock out the brass plug with which it is fitted and allow the cold water to run off, dry the plate with a cloth, and it is ready for the next boiling. Fix the plate of course on a small table or make a rough bench for it to stand on, say 2ft. 2in. high, the price of this plate would be £1 5s., which may be had from the Author or any of the machine makers. It will be also necessary to have a good size pair of scissors. With these few tools, a man or woman with their head properly set and one of my hand-books, ought to be able to make a very nice show in a decent sized window. It has always been my experience, and I think the reader will admit, that where a shopkeeper makes a little of his own goods, no matter how rough, he commands the attention of not only the children in the neighbourhood, but also grown-up people, who place more confidence in the toffee of the local shopkeeper than all the fancies of a London establishment.

When the amateur has thoroughly practised on this small scale, should his trade increase according to his expenses, his ambition

naturally desires a more expeditious and tradesmanlike way of making his goods, so now I must introduce him to a confectioner's stove or furnace.



The above is an exact engraving of a confectioner's stove taken from a photo of a small makers. Now, the most economical way to get about this job is to build it yourself; it is very easy to put together, and if you will follow my instructions three or four hours will be sufficient to build it. There will be required about 100 common bricks and a dozen ordinary fire bricks, a cast iron stove top, and small flat grate and a piece of iron bar 11in. long, 3in. wide, and $\frac{1}{4}$in. thick. If on a stone floor, you may commence to build, if on wood you will require to put either stone or iron under it as a protection against fire. Although I must say I never knew a fire to have been caused through being ignited by a confectioner's stove, I have always considered them safer than even a common fire grate. However, to commence building the stove, first form your ash pit A by raising the two pillars B B four bricks high and three bricks from back to front, or, in other words, 2ft. 3in. from back to front. Leave the space for ashes 9in. across, you will then find you have your stove exactly 2ft. 3in. square. When you have got the pillars up the height, lay the piece of iron 11in. long, 3in. wide, and $\frac{1}{4}$in. thick between the two pillars in front to carry the top courses of bricks. Let your ash pit be 18in. deep and build the back solid, then place the grate (11in. square or so) between the two pillars $4\frac{1}{2}$in. from the front of the stove, form a circle 9in. in diameter by placing the fire bricks on their ends round the grate, then build up the side of the stove to the level of the fire bricks, pack the fire bricks well up with rubble and

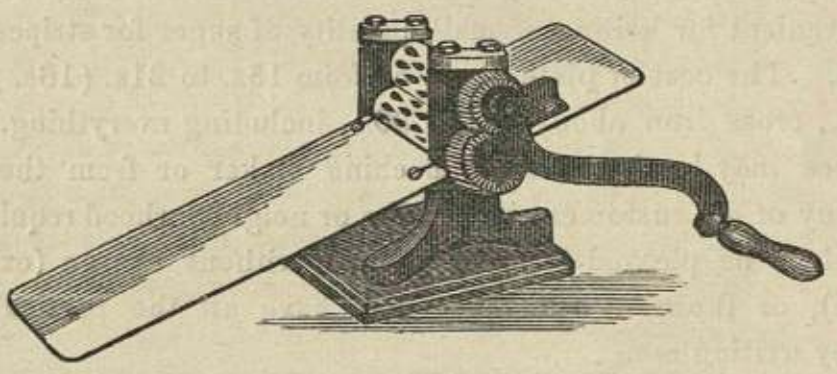
pieces of brick, and cement the whole with fire clay. The stove must be built near a flue or chimney; when the circle is being formed, halve one of the fire bricks which stands upright and form a little flue, having the stove top for a covering, which run into the chimney. Build up the chimney all round this flue so that it may have a good draught. When the stove has been built up and the top surface levelled, the stove top should be placed on the damp mortar or fire clay, so that it may bind firm. In this case the cast iron stove top would be 2ft. 3in. square with a 9in. hole in the centre which would match the brickwork built according to the above instructions; however, the stove top can be cast any size, with larger or smaller hole to suit any pan, or with rings fitted to reduce the size of the hole to fit a smaller saucepan, which is very convenient for boiling a small quantity of sugar for stripes or other purposes. The cost of plate would be from 15s. to 21s. (16s. per cwt.), grate 3s., cross iron about 6d., or 30s., including everything. These necessaries may be had from a machine maker or from the Author. Should any of my customers in London or neighbourhood require a stove built, I shall be pleased to fix it for them without charge (except railway fare), or those at a distance may have all the particulars they require by writing me.

Next in importance comes the pan; they are made in several shapes, and the size should be regulated according to the requirements of the trade, leaving of course a margin for increase. My fancy for the shape of a pan would be the "taper," such a pan as would fit the above stove, say 12in. in diameter across the top and 8in. across the bottom, to fit 1½in. in the hole. With such a pan on this stove one party could boil with comfort over 2cwt. per day; if you want to do more than that quantity, have a larger pan and larger stove, or have a double stove with two pans, but those who require much larger appliances certainly do not require my advice, therefore I must address myself more to the

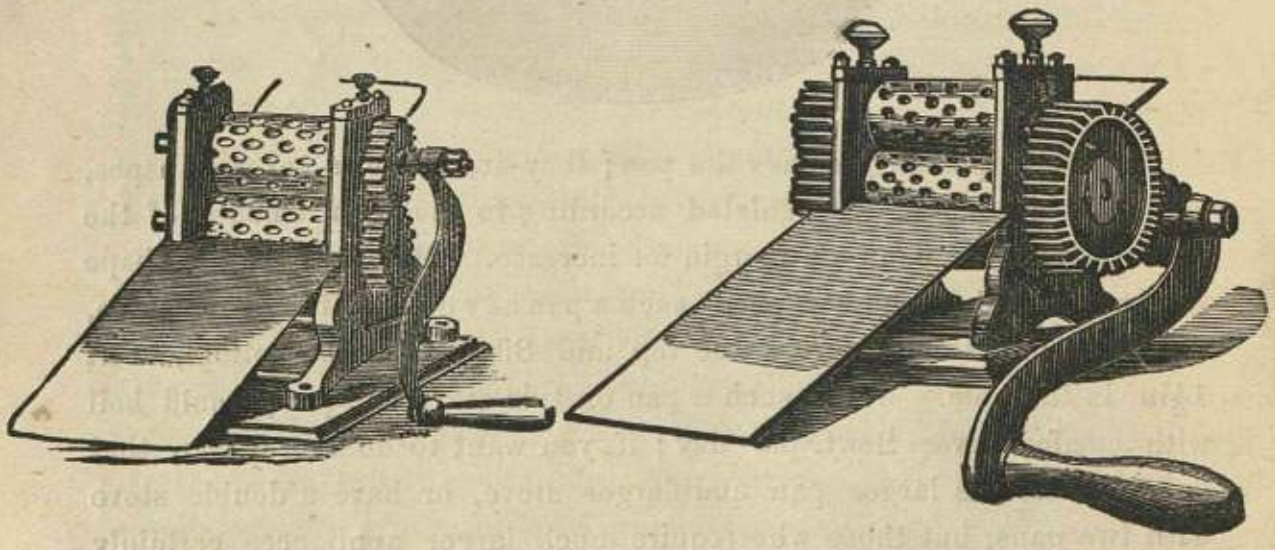
improver than the experienced. Of course all sugar boiling pans for furnaces should be made of copper, it would be folly to use iron for this purpose; a good pan, same dimensions as given, should not exceed 18s. 6d. to 20s. each, according to weight, viz., 2s. per lb.

POURING PLATES.—It will be necessary to have one or two pouring plates, if for a small trade, say 112lbs. per day, a pouring plate 3ft. by 1ft. 8in. would be sufficient; if more than that quantity be required, two plates that size or a little larger is quite large enough for pan and stove described.

MACHINERY FOR THE BOILING ROOM.



The principal and now indispensable machine for the boiling room is a frame which is fitted with standard guages that will admit of any number of rollers being fitted to the same frame, the rollers are all made to a size and are so constructed that one pair of rollers may be taken



out and replaced with another pair in one minute; these rollers are

made to cut and mould almost any shape or pattern, and may also be had with the customers name engraved on them, for impressing cough drops, &c. These machines are made in several sizes, to suit the requirements of large or small makers; the above illustrations represent three different sizes, viz.: a 3¼in. long by 2in. in diameter, a 3¼in. by 2¼in., single gear, and a 4¾in. long by 2¼in. diameter, double gear; they may also be had as large as 10in. long by 2½in. in diameter; however, the smallest of these machines will turn out easily 3 cwt. of drops, &c., per day, and are quite large enough for most small makers, and there is this advantage in buying a small frame: when an additional pair of rollers are required, the cost is very much less than if you wanted them to fit the larger frame.

A beginner, in selecting a machine, should study to have his rollers as useful as possible, and not run away and buy a pair for cutting fancy shapes, because they will simply turn out the pattern they were made to cut, and you cannot make anything else with them; for example, suppose you bought a pair of rollers to cut elephants, you may strip your sugar, case your sugar, or put your sugar through plain, they would still come out elephants; on the other hand, if you bought a pair of plain ball rollers, the same rollers would turn out a variety of different sorts, such as rose buds, acid balls, brandy balls, bull's eyes, lemon balls, &c.; in fact, should the reader make up his mind to have a pair of machines to practice with, I do not think he could have a more useful article than a pair of ball rollers to cut eight to the ounce; the next in usefulness, to my mind, is pine apple rollers, with these you may turn out not only nice pine apples, but also pears, grapes, acorns, ripe pears, &c., by using a little discretion in mixing your colours and assorting your flavours. With these two pairs of rollers learners may make a nice beginning, and add other patterns as he or she may find required.

I have been very often requested to give my opinion as to what would be required, and the probable cost of fitting up a little workshop, with the necessary tools for a small maker, I take this opportunity of doing so.

The machine should be fixed on a thin cast iron slab, say 6ft. long by 2ft. wide, or a flat stone slab, same dimensions; or a cheaper way would be to erect a rough table, 6ft. by 2ft., and about 2ft. 6in. high, cover it over with zinc, screw the frame down on the right-hand corner. Have your pouring plate as convenient to the machine as the size of the room will admit of.

	£	s.	d.
1 3¼in. frame - -	0	12	0
2 pair of rollers to fit ditto, at 26s. 6d. each	2	13	0
1 pouring plate - - -	1	5	0
1 stove top - - -	0	16	6
1 pan (copper) - - -	0	19	6
1 thermometer - - -	0	7	6
1 pair of scissors - - -	0	3	0
	£6	16	6

The above machinery at this price may be had from any of the machine makers, or from the Author.

Having got our workshop all arranged, the next thing is to keep it in order. I visit many workshops during the course of a year, and I am really sorry to see the sad state of slovenliness which is apparent in some of them. If men and women too would only pay a little attention to my remarks on the workshop, in the first, second, and third editions of my work, they would certainly save themselves a lot of trouble as well as needless labour. The comfort of cleanliness cannot be known to some people, else we should soon see a reformation in the shops and workshops of the majority of small confectioners.

Whether the workshop be that of a large factory with its steam benches and machinery, or that of a small sweet shop where the sugar is boiled over the fire and manipulated with the scissors, it is essentially the same as regards the important rule of cleanliness. Let me impress upon the reader the great benefit to be derived from having all the tools thoroughly clean and dry in the workshop. Make it a habit every night when leaving off, to have your benches, slabs, &c., scrubbed or brushed so that no boiled sugar goods or siftings are allowed to remain exposed to the atmosphere during the night; the comfort and advantage to be derived from this precaution will amply repay the little extra trouble of having this rule strictly adhered to.

Before concluding my remarks on the workshop and its machinery, I may say that large machines are made which are worked by steam power, also benches containing six, eight, and ten machines, and rollers various patterns, all set in gear to go by steam power. Each machine is provided with lever and clutch wheel, so that any particular one can be set

in and out of gear in an instant. One or all the machines can be worked at once. However, as I have before stated, people who require such machinery are quite competent to select their own, and it would be entirely out of place for me to presume to advise ; at the same time I am aware my book finds its way into even the largest and oldest confectionery works, and I have been gratified to hear several of my suggestions have been useful to them, but, seeing my *labours have been* principally directed to the beginner, I must refer the *big guns* to the machine makers, who will gladly give them every information respecting the steam machinery and large appliances.

COLOURS AND FLAVOURS FOR THE BOILING ROOM.

These form almost as important a part of the trade as sugar itself, and it should be the chief object of every workman to try and excel in these two important features ; if you do not use good flavours, it is a moral certainty you cannot produce good sweets. Flavours for boiled sugars should be specially prepared, those bought at an ordinary chemist's shop may do very well for flavouring custards and pastry, but are of no use for boiled sugars, in fact, better use no essence at all, as they are so weak that, to give the drops, &c., even a slight taste, the quantity required reduces the degree to which the sugar has been boiled so much that it works like putty, and sticks to the machine while being pressed through ; the drops when finished look dull, dragged, and stick together when bottled ; tons of drops are weekly spoiled by small makers using such flavours, while a little trouble and less expense would put them out of their misery, besides giving to the goods that clear, bright, dry appearance to be found in the drops of a respectable house.

Flavours for sugar boiling should be concentrated. Several large houses who have confined their attention to the wants and requirements of the confectionery and mineral water trades, have succeeded in producing fruit essences of a quality, which is a pleasure to work with, being very powerful, little is required to give the boil a rich flavour, consequently it passes through the machine easy, forming a perfect drop on which is a clear imprint of the engraving characteristic of the machine used. Essential oils used by confectioners are those having an agreeable aromatic flavour and should be used in their original

strength, without being adulterated or reduced. It is absolutely necessary that they should be pure and fresh, more particularly the oils of lemon and peppermint, as when not fresh and pure they partake of the flavour of turpentine and are particularly unpleasant to the taste. These oils being powerful, popular, and expensive, they are frequently adulterated, especially when purchased at small retail chemists. Cream of tartar and tartaric acid on account of the price, is often increased, the former with different cheap white powders, the latter usually with alum. Many people fail in the process through no fault of their own, but simply through being supplied with inferior ingredients, it is therefore of importance, that colours, flavours, &c., should be purchased at some respectable house.

The colours prepared consisting of several very nice shades of yellow and red, also coffee brown, jetoline black, damson blue, and apple green; they are in paste, ready for use; being vegetable, they are guaranteed strictly wholesome, and may be used with confidence. Nevertheless, there are several colours which it is advisable for confectioners to prepare themselves, both on the ground of economy and convenience, viz. :—

Cochineal.—For extracting the colour from this insect this is a good recipe :—grind in a small mill, or crush with a large rolling pin or heavy bottle, (or it may be had already ground), 4ozs. of cochineal, put it into a large pan with three pints of water, place it on your fire or stove, when it boils add 4ozs. of pearlash, (or salts of tartar will do), 4ozs of ground alum, and 4ozs. of cream of tartar, allow it to boil for fifteen minutes, then add 2lbs. of sugar, when the sugar has dissolved strain it through a fine hair sieve or flannel, stir it occasionally while on the fire and watch that it don't flow over the pan while boiling; should this colour be wanted in a paste, allow it to boil five or six minutes after it has been strained. Cochineal makes a pretty red and is a harmless colour.

Saffron.—This decidedly makes the prettiest yellow colour, the colour may be extracted almost in the same manner as you would get an infusion from tea; for example, take one eighth of an ounce of saffron, put it into a jam pot and fill the pot three parts full of boiling water, allow it to stand on your stove or by a fire for five or six hours, when ready strain a sufficient quantity into your sugar while boiling, till the desired shade is obtained.

Turmeric.—This is a cheap yellow colour, it requires simply mixing

with a little cold water, and added either while the sugar is boiling on the fire, or used as a paste and mixed in after the sugar has been poured on the slab ; this colour is also used by pastry cooks, to represent the use of eggs ; a little of it improves the colour and makes cakes look rich, being harmless it may be used with freedom.

Logwood.—An infusion of logwood chips makes a good yellow colour for drops and all clear goods, but should not be used for candies.

Yellows of different shades may also be extracted from Persian yellow berries, Turkey yellow berries and Fustic, these colours are harmless and may be used by the trade.

Blue.—Use powdered Prussian blue (soluble) or ultra-marine blue of the best quality, if these colours can be had genuine and of good quality they are harmless, but the high price frequently tempts adulteration, which is anything but wholesome ; therefore taking into consideration the very small quantity of the colour which is required, I should advise the reader to use W. J. B. & Co.'s vegetable blue, which can always be relied on.

Green.—There are few greens which are not poisonous, therefore either use W. J. B. & Co.'s vegetable green or mix a blue and yellow together.

Purple.—Purple colours may be produced by combining a blue with red.

Orange.—A mixture of red with yellow will produce an orange, vary the proportions of each according to the shade you require.

Red.—Cochineal, carmine, Brazil wood, or cherry red.

Aniline Colours.—There is a class of colour manufactured from coal tar, sold as aniline colours, they may be had in almost any shade or colour, and are very powerful in colouring properties ; they are used largely by dyers, and I must say by confectioners ; although I could not guarantee them harmless, I have never known them to have been injurious. I have personally used quantities of those colours, both for sweets and preserves, and could mention large and respectable houses who are at this present moment using nothing but aniline colours in the sugar boiling and preserving departments. For colouring jams and jellies the magenta crystal (aniline) will be found cheaper and better for this purpose than any other colour. For extracting the colour from those dyes this simple recipe will be essential, viz. : dissolve the colours

with boiling water or alcohol, use them with care, as one or two drops are sufficient to colour a small boiling of sugar.

ESSENTIAL OILS AND FRUIT ESSENCES.

The flavours used by confectioners are those possessing an agreeable aromatic flavour, it is indispensable that they should be *pure, fresh*, and of the very best quality ; to obtain those properties they must be procured from a house who study the confectionery business and have a connection amongst them. It is a well known fact amongst the trade, that when oils are old or adulterated they loose all their agreeable flavour and taste of turpentine, which renders them particularly unpleasant. The monstrous profits exacted by retail chemists, almost prohibit the confectioner from dealing with him, and the powerful nature of the pure oils freely admit of a large amount of adulteration, which it is impossible to detect until it is used. Small makers would do well to buy carefully from a good house not more than will be used up in two or three months, especially the oils of lemon and peppermint, as they are more liable to turn rancid than the others ; they are best kept in a cool dark place. The same remarks will also apply to fruit essences, with this addition, that it is almost impossible to buy essences at small dealers fit for sugar boiling purposes, those they generally keep in stock being only suitable for pastry cooks and household purposes. A reference to the list of prices at the end of this book should always be consulted when buying, as it will give a general idea of the value of most requirements, however, it is only fair to bear in mind that this is a wholesale list, and consequently a reasonable profit must be added by the local shopkeeper ; it must also be noted that this list is corrected till date of going to press, and is subject to market fluctuations, which, as a rule are trifling.

HOW TO BOIL SUGAR.

Formerly sugar boiling was considered an art, but the introduction of machinery has reduced that art to a question of labour of the very simplest description. If the learner will study the following instructions, the Author guarantees to place him in a position to boil sugar as correctly as the most experienced workman. To accomplish this the

reader should provide himself with a sugar boiler's thermometer, which may be had from any of the machine makers or from the Author, price 7s. 6d. The cost of this is very soon repaid by the saving of material and time as well as anxiety. While the sugar is undergoing the process of boiling, it is almost impossible for a learner to determine the exact degree which the sugar has attained without its aid, and even the journeyman finds it so useful that you will find very few indeed who boil sugar without it ; in fact, many of the large shops will not allow a sugar boiler to work without one. For almost any purpose the following degrees will be found all that is necessary, for example, put into your pan in which you intend to boil 7lbs. of lump sugar broken in small pieces, or white crystalized sugar will answer the same purpose, together with one quart of water, place it on the fire and allow it to boil. When it comes to the boiling point (if lump sugar) lift it off and see if the sugar is all dissolved, if not, use your spatula (that is a stick about two inches wide and a couple of feet long), and crush any lumps which may remain against the side of the pan, replace it again on the fire, put a cover over the pan, and allow it to boil for 10 minutes, then take off the cover and put the thermometer in the pan, immersing the bottom part of it in the boiling sugar, and let it remain there until the sugar is boiled to the degree you require. The following five degrees are those used by confectioners for different purposes :—

1st, the smooth, viz., 215 to 220 by thermometer. When the mercury registers these figures the sugar may then be used for crystalizing creams, gum goods, and liqueurs.

2nd, thread, 230 to 235, is the degree which is used for making liqueurs.

3rd, feather, 240 to 245. Only a very few minutes elapses between these degrees, and the sugar must be watched close during the boiling at this point. This degree may be used for making fondants, rich creams, cream for chocolates, and fruit candying.

4th, ball, 250 to 255. The sugar at this point is used for making cocoa nut and other candies, cocoa nut ice, and almost every description of grain sugars generally.

5th, crack, 310 to 315. This is the degree which is used, with little variations, for all kind of drops, rocks, toffees, and all clear goods, whether for the purpose of passing through machines or manipulating with the hands.

These degrees can be tested by an experienced hand without the aid of the thermometer, and the learner may accustom himself by trying them in the following manner :—take the stem of a clay pipe and dip it into the sugar as it boils, draw it out again and pass it through the fore finger and thumb, when it feels oily you will find by looking at your thermometer that it has reached the degree of smooth, 215 to 220, by the glass.

The next degree or thread may be tried by your taking a little of the sugar off the pipe between your finger and thumb and part them gently, if you see small threads hang to between your finger and thumb that degree has arrived.

For the degree of ball, 250 to 255, you must have by your hand a small jug of cold water ; when you draw the pipe out of the sugar dip it in the water, and when taken out of the water, if you can work it up like a piece of putty, you have got the degree of ball.

The degree of crack must be tested in the same way, and the sugar must leave the pipe clean, dip it again into cold water, when off the pipe break off a piece with your teeth, if it snaps clean in your mouth without sticking to your teeth pour your sugar on the slab at once.

Note.—This last degree must be tried sharply in giving the process for trying without the thermometer ; we caution all beginners to get a thermometer, as practice alone can instruct you without ; it is also necessary to state that the thermometers differ considerably by different makers. The foregoing is taken from one of L. Collier's glasses.

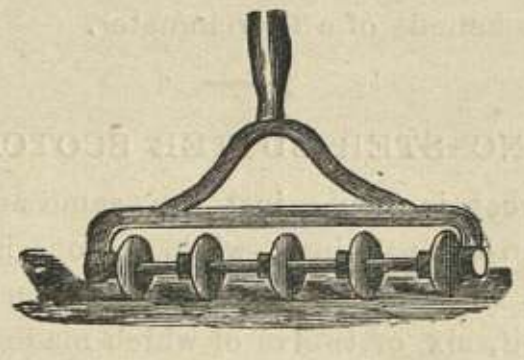
The Author makes it a rule of trying every thermometer he sells to customers, and guarantees them to register according to instructions given in this hand-book. During hot weather it is necessary to bring the sugars up to the full degree; during the winter months the lower degrees marked will answer the purpose.

CUTTING THE GRAIN.

Refined sugars, whether lump or crystalized, when boiled to any degree above the " ball," or 250 by the thermometer, are grainy, and

would, if turned out of the pan, become a solid lump of hard candied sugar. To prevent this the grain must be cut by the addition of cream of tartar, which in its action will cause the sugar to be pliable while hot, and transparent when cold; therefore it is necessary to use cream of tartar with all sugars intended for drops, rocks, toffees, and clear goods.

Several other acids have been used for this purpose with more or less success, such as pyroligneous acid, sulphuric acid, vinegar, &c., but experience has taught me that cream of tartar is the best, safest, and most to be relied on, therefore it would be needless for me to give quantities for using the others.



EVERTON TOFFEE.

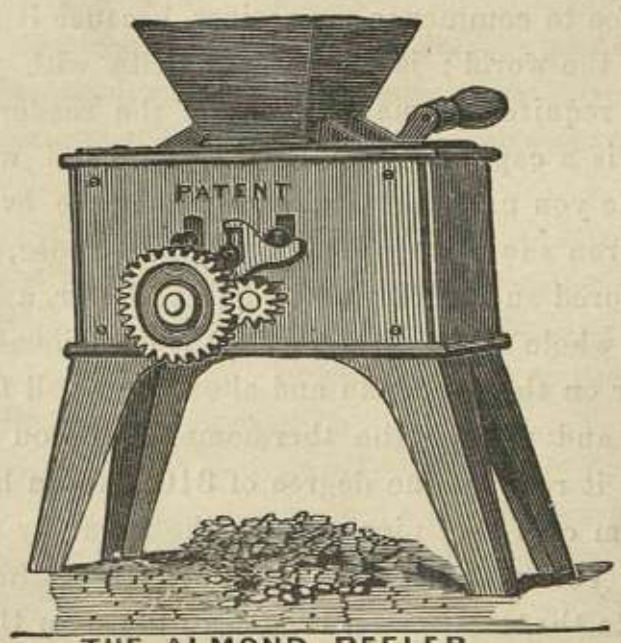
I do not think I could select a better, older, or more popular sweet than Everton toffee to commence my recipes, because it is a toffee which is known all over the world; is a great favourite with young and old, easily made, and requires no machinery. If the reader has never seen sugar boiled this is a capital sweet to try his hand with, and if you carefully follow me you need not make any mistake even in the first boil; a common iron saucepan will answer the purpose, into which put 4lbs. of light coloured sugar, pint-and-a-half of water, and ½oz. of cream of tartar, put the whole on the fire and stir it occasionally till it boils, then put the cover on the saucepan and allow it to boil for ten minutes, take the cover off and put in the thermometer, if you have one, and allow it to boil till it reaches the degree of 310. If you have no thermometer, use the stem of a clay pipe and try the sugar by dipping the pipe stem into a jug of cold water, then immediately into the boiling sugar and back again into the cold water, then draw the stem through between your finger and thumb; if the sugar slips off the stem freely, put it

between your teeth, if it crunches and leaves your teeth without sticking to them, the sugar is done. Have by your hand 1lb. of good butter already melted, and directly the sugar is done, pour the melted butter into the boiling sugar, also a teaspoonful of the essence of lemon ; allow it to remain on the fire a few minutes till the butter boils through the sugar, and pour out the toffee into tin frames or plates which have been previously oiled. When nearly cold, mark it into bars with a knife or machine as above, which will cut them in bars or squares any size, price £1 2s. 6d.

NOTE.—When the sugar gets nearly ready, perhaps the learner, if he has no thermometer, had better lift off the pan while he tries it, in case of it burning, in that case he had better use loaf sugar, otherwise the lifting on and off the sugar will spoil the colour of the toffee ; this will show you at once the benefit of a thermometer.

DONCASTER BUTTER SCOTCH.

This favourite sweet is made just the same as Everton toffee, the difference is simply in the packing ; while the one is run into frames or cut up in large bars, the other is cut in small pieces about ½oz. each, and wrapped in tinfoil, six or twelve of which made up into an attractive packet is sold at 3d. or 6d. each.



THE ALMOND PEELER

FRENCH ALMOND ROCK.

Put into your pan 7lbs. of loaf or white crystalized sugar, one quart of water, and ¼oz. of cream of tartar ; boil it as directed to the degree of crack. When ready, put into it 4lbs. of sweet almonds which have been blanched and dried. Let the sugar then remain on the fire just long enough to boil through ; stir it gently with the spatula to keep the almonds off the bottom ; in a few minutes pour out the whole into tin frames or on the pouring plate.

N.B.—To blanch and prepare the almonds, put the quantity into a pan or other vessel, pour over them sufficient boiling water to cover them, stir them up, and in a few minutes the skins will peel off them easily. When blanched, put them on a tray in front of a fire or in an oven to dry. After the almonds have been put in the sugar, be sure you stir very gently, only the one way, or it may grain. The addition of a little essence of lemon, just before pouring out, improves the flavour. The almond peeler will blanch 60lbs. of almonds per hour, price £3 10s.

ALMOND ROCK.

Boil 7lbs. of dark sugar (raw or pieces) to the crack, and pour on your slab, spread over it immediately 4lbs. of sweet Barbary almonds, work in the almonds amongst the sugar thoroughly, and when firm make a thick roll of it and place it on a hard wood board and cut it off in slices about half-inch thick with a large sharp knife, the almonds for this do not require blanching, but see that all the grit is taken from them, if the sugar is strong it will require a little cream of tartar.

ALMOND HARDBAKE.

Split some Valencia almonds, and lay them face downwards on your slab or frame, boil either dark or light sugar to crack, and pour it over them thinly and carefully, not to disturb the almonds.

COCOA NUT HARDBAKE, OR EGGS AND BACON.

Cut part of a cocoa nut in slices, dry them, and lay them on your

pouring plate in rows about half inch apart. Sprinkle between the slices some nonpariels of various colours (hundreds and thousands), boil to crack a sufficient quantity of sugar with the cream of tartar added in proportion. When ready, colour with a little cochineal, and pour it over the cocoa nut slices and nonpariels carefully about a quarter-of-an-inch thick. When this class of goods are run on the pouring plate it is very convenient to have a loose iron bar so that the pouring plate may be divided into any required size.

STICK JAW.

This is a very popular sweet amongst the children of London, but I never saw it anywhere else; it may be a novelty amongst my country readers and I have no doubt will sell readily anywhere. Boil to crack, 310 by thermometer, 7lbs. of good sugar with ¼oz. cream of tartar; have ready a small fresh cocoa nut cut in slices. When the sugar is ready, add the cocoa nut slices, let it remain by the side of the fire a few minutes till the nut mixes in, then pour out in tins.

ROSE AND LEMON TOFFEE.

Boil 7lbs. lump sugar and ¼oz. cream of tartar to crack; colour for lemon with a little saffron, add a little of essence of lemon, and pour it either into tin frames or on pouring plate. Proceed for rose toffee in the same manner, colour with cochineal and flavour with a few drops of otto of roses.

N.B.—Any of these toffees when run on the pouring plate may be cut into bars any size by simply marking with a knife before quite cold; make the mark deep, and when quite cold the toffee will break at the indentations.

HINTS ON SUGAR BOILING.

Before going any further into sugar boiling, I think a few little facts, which I have picked up only by experience, would not be out of place. I have seen some workmen, and good workmen too, who could not

make a good acid drop, I mean an acid drop to look nice and white and dry; I will tell you the reason: they use too much water with their sugar; to make an acid drop to perfection you must use as little water as possible, and add more cream of tartar; do not boil quite so high, and dust them well with powdered sugar before bottling; always have your pan not only clean but bright when boiling for acids; however, learners must not try and boil with less water than marked in the book, as the sugar is more liable to grain; have a little practice first. In boiling refined sugars see that your fire is sufficiently made up to bring off the pan without any additional coal; it does not matter if the fire is green when the pan goes on, but to put fresh coal on when the sugar is boiling hurts the colour very much, especially when on an ordinary grate; the quicker the boiling is done, the better both for colour and durability. In boiling raw sugar or "pieces," should the boiling catch or burn at the bottom before quite done, lift the pan off at once and shake a few ashes over the fire, replace the pan and repeat the operation should it again catch before ready; dark sugars are very liable to burn, especially on a brisk fire.

In using colours, mix them in on the slab when practicable, it saves the pan being washed out so often, consequently a saving of sugar. Always study to make all your light goods first, this will also save trouble and material; supposing you wanted to make four sorts of toffees,—red, yellow, white, and black, of course toffees would require colouring in the pan, your proper way would be to make the white first, then the yellow, then the red, and last the black; your pan in that case would require no washing, as the colours would not hurt each other taken in that rotation; but if you made the red first, and so on, the pan would require washing every boiling. Use good sweet oil for oiling slabs, &c. Weigh your acids. Measure your flavours in a graduated glass. Wash the glass out often or it will get rancid. In using fruit essences, use with them a little powdered tartaric acid, half the essence will do, and he flavour is much better. Oil your slabs with a flannel rag, and be careful to keep the rag in a dish, or if it lies about it is liable to fall on the floor and carry the dirt to the slab next time you use it; when the rag gets dirty burn it, and get a clean one; if the dirty one lies about you are liable to use it in the hurry by mistake; I have seen many a nice boiling spoiled by this carelessness.

Perhaps some of my readers may think I am too particular, but I am

not; if you get into a good system the work will go all the better; do not neglect these little things, it will save you a lot of trouble, and if you keep things in their places you will not get confused when the boiling is poured out.

ACID DROPS.

It is always advisable to make these drops of the best sugar, crystal or lump, to obtain a good colour have your pan (which should be made of copper) clean and bright, into which put, say 14lbs. of sugar, if lump chopped small, ½oz. cream of tartar, and three pints of water; put it on a brisk fire, stir it occasionally until it boils, take it off, see that all the lumps of sugar are dissolved, if not crush them with the spaddle, replace it on the fire and cover the pan, say for ten minutes, remove the cover, put in the thermometer, let it boil until it reaches the crack or 310. When this degree has been reached lift it off the fire immediately, and pour it on the slab, which has been previously oiled, spread over it 3oz. of tartaric acid and a teaspoonful of the essence of lemon, when a little cold turn in your edges and work it up as you would dough, thoroughly mix the acid in, when a little stiffer pass through the machine, when cold break up, sift them in a coarse sieve, and bottle. These drops are generally made square, or in flat rounds about the size of a sixpence, and also into small drops like rosebuds.

NOTE.—This process applies to nearly all boiled sugar drops, the colour, flavour, and shape alone differing; you may vary the quantity of acid, &c., according to your own taste, or that of the customer. Should you find the goods grain quickly add a little more cream of tartar.

RASPBERRY DROPS.

Proceed exactly in the same way as for acid drops (sugar not quite so good will do). Just before the sugar reaches the degree of crack, add your prepared cochineal, just sufficient to colour the sugar, to resemble the fruit as near as possible. When it has reached the full degree, 310 to 315, pour it on the plate and mix in a teaspoonful of powdered tartaric acid and two teaspoonfuls of the concentrated essence of raspberry, work it up as explained under "acid drops," and pass through the raspberry machine.

N.B.—If you have your colour in paste, the sugar may be coloured after it has been poured out by adding the colour at the same time as the acid and essence, and knead up the whole thoroughly with the hands.

HONEY DROPS.

Same process as for acid drops ; use a little saffron to tinge it a light yellow, flavour with essence of honey and acid ; pass through the round acid drop machine.

N.B.—Do not neglect to put the cover over the pan for, say, ten minutes when the sugar begins to boil. The object of this is to keep the sides of the pan clean, otherwise it would accumulate candy and cause the boiling to grain.

PEAR, PINE APPLE, BARLEY SUGAR DROPS, &c.

All clear drops are made from refined sugar, boiled precisely in the manner as acid drops, the colours and flavours alone differing. In selecting the colours, imitate the fruit as near as possible and flavour with the corresponding essence. Machines may be bought to make any shape. Pear drops are made in London a light red, while in most of the provinces, half are made yellow the other half light red, and afterwards mixed. Colour the red with cochineal, flavour with the essence of Jargonelle pear and a little tartaric acid, and pass through the pear machine. Pine apple drops are made yellow, tinge with saffron, flavour with essence of pine apple with acid ; pass through the pine apple machine. Barley sugar drops same colour as pine apple drops ; flavour with a few drops of essence of lemon, no acid ; pass through the flat acid machine. Drops when cold enough should be sifted and bottled directly, if they are allowed to stand exposed for any considerable time the action of the atmosphere will cause them to sweat a little, which would make them cling together in the bottles. It is a very common habit now with most of the large houses to dust all plain drops, such as acids, pears, pine apple, raspberry, &c., with fine powdered lump sugar to prevent them sticking. Striped, Cased or ornamental drops are not dusted.

I do not think it necessary to give any more recipes for plain drops,

there are a great variety of them made, and you can make as many different sorts as you have machines and essences for by attending to what I have already stated, therefore I will devote the remainder of my space for boiled sugars to something more artistic.

STRIPED GOODS.

There are a great variety of drops, rocks, &c., which look exceedingly pretty when well made, known as striped goods ; they are by no means difficult to make, nevertheless they require practice and discretion to make a good job of them. The beginner must accustom himself first with making the plain toffees and drops before trying his hand with those goods, because they require greater expertness, more judgment, and a little experience with boiled sugar for all kinds of striped work. It is necessary that some part of the boiling at least must be pulled, that is by cutting off a part of the boil while hot, throw it over a hook, pull it out and keep throwing it over again and again, taking a fresh hold of it every time. The sugar by this action will gradually assume a white satin-like appearance, and become light and porous. The hook on which the sugar is pulled should be fixed firmly against the wall near the pouring plate, about five feet or so from the ground; it should be large, taking a sweep of 10 or 12 inches. Where only a small trade is done, a good 10in. nail may answer the purpose. The fine colour and appearance of the sugar after pulling, depends upon the quickness of the operator. Should the worker be a female, or even a male who has not previously handled hot sugar, the process of pulling will make the hands very warm ; however, you must get used to that. Do not leave the sugar, simply dust a little dry flour on your hands and stick to it till finished, the hands very soon get accustomed to the heat. Should you not be so successful the first few times do not be discouraged, as only practice and perseverance can make you overcome this difficulty. When you have succeeded, you may almost say you are master of the situation. In making your first experiment in striping, do so with drops, as, if they are not striped in an artistic manner after being passed through the machine, they will not show the defects. After a little practice with the drops, you may then commence rock making in variety, always keeping in mind —"Rome was not built in a day." Perhaps it would be as well for me

to note here that customers in the different parts must not expect to find the same names applied to the same goods as they are in the habit of seeing or selling; every district has got its speciality, nevertheless, the different recipes for the sweets given in this work are those usually sold in London by that name, and customers residing in different parts may re-christen them to suit the locality they are to be sold in.

PEPPERMINT BULL'S EYES.

Boil to crack 310 to 315 by thermometer 7lbs. of dark sugar, flavour with the oil of peppermint when on the pouring plate, cut off a small piece and pull it over the hook, as directed, then pull it out in lengths about the thickness of the forefinger, and lay it on the boil in strips about an inch apart, fold the whole over, bringing the two ends together so that the stripes will show on both sides of the boil, you may then twist it round two or three times, bringing the two ends together each time, this will make the stripes much thinner and look better, when finished cut it into convenient pieces and pass through the ball machine.

N.B.—Seeing that this boiling is made from dark sugar, of course the stripe will be a light brown; if a white stripe is required, a pound or so of sugar must be boiled separately and pulled; during the operation of pulling the sugar, the bulk must be kept warm by turning it over on the warm plate; if the pouring plate be not hot, place the boil on a hard wood board, which will keep it soft and pliable for a considerable time.

LEMON BULL'S EYES.

Boil with ¼oz. cream of tartar 7lbs. of refined sugar to the degree of crack, when poured on the slab cut a small piece off and pull as directed, add a little yellow colour with the essence of lemon and a teaspoonful of tartaric acid to the remainder of the boil, and mix it up thoroughly; when the stripe has been pulled lay it on as for peppermint bull's eyes, and work it exactly in the same manner; pass through the ball machine

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SHRIMPS.

Boil 7lbs. of refined sugar with ¼oz. of cream of tartar to the degree of crack, when on the plate cut off a small piece as instructed in last

colour the body of the boiling a light red, stripe with the white pulled sugar, flavour with the oil of lemon, pass through the shrimp machine.

NOTE.—All striped drops are made in precisely the same way, you may colour the body of the sugar to fancy, and pull the stripe, or you may pull the body of the sugar and stripe with the solid sugar, but one part of the sugar must be pulled, either the body or the stripe, otherwise if two solid sugars were put together they would amalgamate while going through the machine.

CASED GOODS.

This is another class of boiled sugars which require practice before any degree of proficiency is attained, however, if the reader has mastered the details of the striped work, this will come tolerably easy ; the process in pulling is exactly the same as described under Striped Goods, but generally speaking the quantity that requires pulling is larger in this case. The object in casing boiled sugars is to show up the colours and make the sweets light and bulky. Nearly all ornamental rocks and drops are more or less cased, consequently it is important to study this branch, where a variety is required. I shall better explain the meaning and process of casing by giving the following recipes, which belong to this description, namely :—

ROSE BUDS.

Boil to crack 310 by thermometer 7lbs. of good loaf or crystalized sugar with ½oz. of cream of tartar, pour it on your slab, cut off with scissors one third of the boiling, and flavour the whole with a few drops of the otto of roses ; colour the larger part rather deep red with cochineal paste, mixing it well in ; take the smaller portion and pull it over the hook until a nice white spongy appearance is attained, then lay the white in the middle of the red sugar and cover the pulled sugar all over with the red ; draw it out and cut it into convenient pieces for passing through a small ball or acid drop machine.

N.B.—A little acid improves the flavour.

CHERRY BALLS.

Proceed exactly as for rose buds : when the boil is on the pouring

plate divide into three equal parts, flavour the whole with essence of cherry and a little acid. Colour one part red with cochineal paste, another yellow, the third portion you must pull white over the hook; when thoroughly pulled lay the white sugar between the red and yellow pieces, so that on one side it would show a bright yellow, on the other a bright red; pass through a ball machine.

RIPE PEARS.

Precisely the same as for cherry balls, with the exception of the flavour; use the essence of jargonelle pear with a little acid.

N.B.—Your pouring slab must be warm for these goods, or you must use a hard wood board to keep the sugar on while part is being pulled.

FARTHING AND HALF-PENNY STICKS.

These sticks are made in a variety of different colours and flavours, some plain as acid sticks, some striped as peppermint sticks, and some cased as raspberry sticks. Suppose I select one sort, and give you the instructions as well as I can for working off. I think you will have no difficulty in making the others, seeing they all refer to the same kind of goods, with the exception of the colours and flavours. I will describe the characteristics which distinguish the different farthing sticks, according to their flavours, which usage and time has given to them.

Peppermint Sticks: all white pulled; Peppermint sticks: black with six white stripes of uniform thickness, evenly distributed around the stick.

Lemon: pulled white centre with yellow case.

Orange: pulled white with one broad red and two narrow orange stripes.

Cinnamon is coloured red, not pulled, and is distinguished by four narrow white stripes.

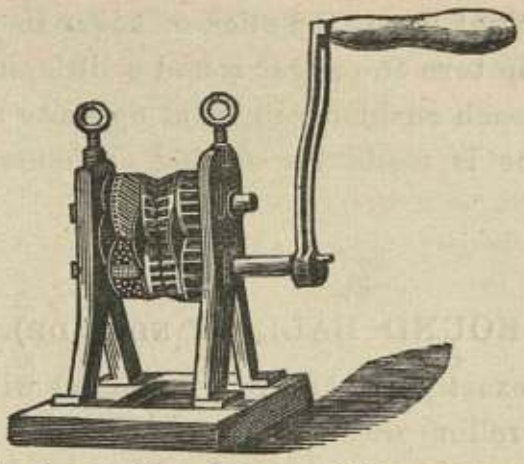
Clove is left transparent with a tinge of red, striped with white and red stripes alternately.

Rose: pulled white centre cased with red.

Raspberry: pulled white centre cased with red and striped on the casing with six narrow white stripes; as an example I will select the raspberry stick, as it is perhaps the most difficult, and give the process in detail, and I trust the reader will be able to manage the rest, at the same time, I must say it requires a good deal of skill to make a pretty stick, and I must advise patience with those who are fidgity, and give them this consolation, that should you spoil any at the beginning, you can snip them up into small pieces and sell them for broken rock or put them with cheap mixtures, they will not then show your defects. To make the raspberry stick, boil the sugar with the quantity of cream of tartar, not quite so high as for drops, say 305 degrees; pour it on the slab, cut it in half with scissors, flavour both pieces with essence of raspberry and a little acid, colour the one half a bright red and pull the other over the hook till it becomes a snowy whiteness; cut off about a pound from the pulled sugar and lay it in a warm place, put the remainder in the centre of the red sugar, see that it is covered all round with the red, then take the small piece of white and roll it into a long stick, cut it into six pieces of equal lengths and place long ways round the boil at equal distances apart; now roll the whole boil round on the plate, gradually working one end down to a point, and pull it out in lengths the required thickness; keep twisting it, and the stripes will form a pretty spiral round the stick; when you get it the full length of your plate cut it off and pull out another rod in the same manner, keeping the first pieces occasionally rolled while you are pulling and rolling out the remainder of the boil. When you have finished the boil and the lengths get cold enough, snip them off with your scissors in lengths for half-penny or farthing.

PEPPERMINT ROCK.

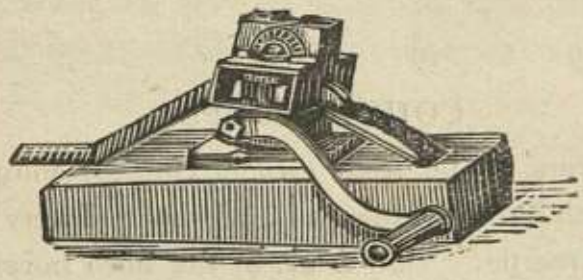
Peppermint rock, as made in London, is very easily made, and sells very well. Boil the sugar as for sticks, when cold enough to handle pull the whole boiling over the hoop until white, flavour with the oil of peppermint, roll it out into large sticks about an inch thick; these sticks are chopped up and sold by weight.



This machine is made for making flat or plait ornamental sticks. Price £2.

PINE APPLE AND VICTORIA ROCKS.

These rocks are made almost as thick as your wrist, some make them even much thicker. Boil to the crack with the usual quantity of cream of tartar; pour the boiling on the slab, colour one half red and pull the other half over the hook, flavour with raspberry, case the pulled sugar with the red. For pine apple rock, colour the whole boiling yellow and pull half over the hook, and case with the clear sugar, flavour with the essence of pine apple and a little acid.



CUSHIONS.

There are a great variety of cushions, which differ in colour and size, according to the locality in which they are made, and I have no doubt that in the majority of places the same goods are known under quite another name, as in Glasgow they are known as square balls. They are generally cut to weight from four to five cushions to the ounce. The process is precisely the same as for sticks. When the boil has been prepared, that is striped, cased, or plain, according to what cushions you require; draw it out and roll as if for half-penny sticks, but thicker and with the scissors snip them off in pieces about an inch in length, hold

the scissors in the right hand, the stick of sugar in your left, and every time you make a clip turn the sugar round a little in your left hand, so that the corners of each cushion will be at opposite angles.

N.B.—A machine is made for cutting cushions, but is expensive, being £4.

ROUND BALL (HAND-MADE).

These are made exactly as the last; when cut with the scissors they are made round by rolling with the hands while hot.

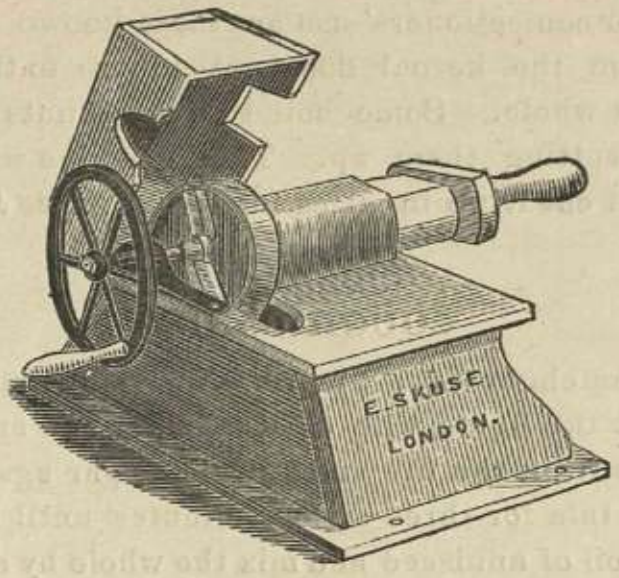
NOTE.—To make cushions, balls, or even sticks, requires a great deal of practice, balls especially, and it is almost impossible for a man to explain sufficiently clear to be quite understood by any one who is quite ignorant of sugar boiling. I could and would go into this matter more fully if it were not that I think I should confuse the learner rather than instruct him. I have seen many cookery books which were tiresome to read on that account, and when read, was of little or no value to a novice, as I for one could make neither top nor tail out of them, and in fact sounded to me like so much legal gibberish, therefore I will leave these goods in the hands of my reader, and rely on their patience and ingenuity to work the details.

COUGH DROPS.

Most manufacturers prefer their own mixing for cough drops (and of course they are much better than mine), however, I may be pardoned for recommending this recipe. Boil 2ozs. of the herb horehound, with one quart of water till it is reduced to one pint. Strain it, and add the liquid to 14lbs. of sugar, before it goes on the fire add the necessary quantity of cold water and cream of tartar as for other drops, and boil in the same manner as for acid drops. When the sugar has been poured on the slab, add two teaspoonsful of the oil of anniseed, twelve drops of the oil of peppermint, and 2ozs. of powdered tartaric acid.

N.B.—Vary to your liking any of the above quantities, or add any other drug, such as paregoric, coltsfoot, &c. Make them any colour you fancy. I make my own a light brown.

COCOA NUT CUTTING MACHINE.



COCOA NUT CANDY.

Boil 7lbs. of sugar to degree of ball, 250 by thermometer. When ready, have two large cocoa nuts cut up in slices, put them in the pan and allow the sugar just to boil through, lift the pan off the fire and work the sugar against the side of the pan until it changes to a thick grainey substance, then stir the whole well through and pour out on tins or pouring plate.

COCOA NUT ICE OR PASTE.

Boil 6lbs. of the best white sugar and one teaspoonful of cream of tartar to a soft ball, degree 248 by thermometer, have ready peeled and grated two large cocoa nuts, rub the sugar well against the side of the pan till it becomes thick and of a white creamy substance, then add your grated cocoa nut and mix the whole together and pour out into a tin frame which has been previously oiled. Allow this to stand till it sets quite hard, then boil 4lbs. of sugar to the same degree and grain it in the same manner, adding one graited cocoa nut and some cochineal to colour it red. Pour this over the white, let it stand for say six hours and cut up into bars with a large sharp knife.

N.B.—To prepare the cocoa nut for this process, which must be

good, crack them and peel off the brown skin with a knife or spokeshave, rub them through a coarse grater or cut them up with machine. The best cocoa nuts for confectioners' use are those known as the Carthagena nuts, when broken the kernal does not adhere to the shell, therefore may be taken out whole. Some boil the cocoa nuts with water for 15 minutes before cutting them up. This machine will either grate the nut for ice or will cut it up in slices for candy, price £1 10s.

COUGH CANDY.

Boil 1oz. of horehound (herb) with a quart of water for ten minutes, strain it and put the liquid with 6lbs. of sugar (no cream of tartar), and boil to ball, take it off the fire and rub the sugar against the side of the pan with the spatula for three or four minutes until it gets thick, add a few drops of the oil of anniseed and mix the whole by stirring briskly, and pour into frames or on the slab. In London, cough candy is made altogether differently, and is not a candy at all, being boiled in exactly the same way as acid drops, with cream of tartar up to the degree of crack, 310 by thermometer, and flavoured with extract of horehound and oil of anniseed, with a little tartaric acid added when the sugar has been poured on the slab. It is drawn out in strips about 1in. wide and ¼in. thick, and when half cold, twisted with the had.

N.B.—The extract or essence of horehound may be bought like other essences, and is more convenient for some people to work with ; however I prefer the herb, and would recommend its use in preference to the essence when it can be easily procured.

CREAM OR SOFT CANDIES.

A variety of very good selling candies are now made from the same recipes, such as peppermint, lemon, rose, fruit, almond, cocoa nut cream candy, &c., &c. As it would be no use filling this book with these creams under different headings, I give you the process, and shall leave the reader to colour and assort the flowers, which he must do to suit himself, or rather his customers. Boil 6lbs. of good white sugar with one quart of water and ¼oz. of cream of tartar to the degree of good stiff thread, 235 by thermometer ; then take it off the fire and stand it to cool, say 20 minutes, then well work the sugar against the sides of the

pan until it gets thick and like so much white cream, and flavour it with any essential oil or essence, if essence, add a little acid, or a little raspberry or black currant jam, blanched almonds, or fine grated cocoa nut chips, and give the cream a name according to how you may have flavoured or coloured it. Of course have your frames well oiled, or it is better poured on paper ; a few shapes formed with strips of tin about an inch wide made in the form of a heart, diamond, or round, large enough to hold, say ½lb. or 1lb., look very attractive. This cream being very tender, allow it to lie on the slab or in the frames some time before you disturb it or you will be liable to break them.

NOTE.—For all kinds of candies it is very convenient to have a few loose iron bars about ¾in. square in length, according to the size of pouring plate, so that you could form an exact size to run your toffees or candies in, according to the quantity of sugar boiled and the thickness you wanted for the toffee or candy.

HONEY COMBE OR SPONGE CANDY.

Mix two teaspoonsful of fine powdered sugar, with the white of one large egg, beat it stiff, have a frame (wood will do) made say 8in. square, and lay it on a wet slab, boil 4lbs. of loaf or crystal sugar to crack (use no cream of tartar) ; when done, lift it off and put the pan on the ground, pour in the sugar and egg with any colour or flavour you fancy and stir the whole up immediately with the spatula, it will rise in a minute or two, but allow it to fall again. Continue to stir till it again begins to rise, then pour it out instantly into the frame. This process must be adhered to sharply and correctly, be sure you do not pour it out the first time it comes up, or it will become flat on the slab. Many fail at this process by pouring it out at the first rise.

LEMON BARLEY SUGAR.

Proceed as for acid drops, they may be boiled to a colour, but there is no advantage in this, and with a learner there is great risk of the sugar burning, by adding a teaspoonful of strong saffron water the proper shade will be obtained ; when boiled to crack pour it on the slab, keep the edges smooth by running the blade of a knife under them as it begins to cool, cut off in strips and twist them.

NOTE.—The quantity of sugar must be regulated according to the size of the slab on which you intend to pour it for thickness, the slab must also be warm, or the sugar will cool faster than you can cut and twist.

MOTTO ROCK.

Had it not been for the great number of letters I have received from customers in reference to this class of goods I would certainly have passed over motto rock. I feel myself quite unable to give you instructtions clear enough to begin this, the most labourious task a sugar boiler has to undertake. There is no doubt that hand-made goods look much prettier than any that can be done by machines, on the other hand there is just this to be said, that it would be impossible to compete as far as prices are concerned with the machine goods of the present day. By way of variety it is very flattering to be able to decorate your shop and windows with some tasty stick or motto which will show the ability of a workman in such a striking degree. Nothing but practice, and a great deal of it, will ever make a proficient hand, but certainly patience and perseverence will overcome this as it will do almost everything else, therefore I will give the process as plain as I can in the hope that it will be found of practical assistance to those who aspire to be master of the branch. In the first place see that your workshop is all in order with everything at hand, have your pouring plate warmed by two or three previous boilings, boil your sugar a little below crack, say 300 by the thermometer. When the boil is on the slab see that you keep it all in a heap, do not let the edges get hard, but keep turning them in, pull the sugar directly it is cold enough to be handled. Colour the stripes, mixing the colour well in, keep them in a warm place while working the boil, turn them over occasionally so that they may be kept moist all through; should your stripes not stick when laying them on the boil, damp them slightly with a wet cloth. Suppose we wanted a boiling of rock with the word LOVE running all through it, boil to just a little under the crack 7lbs. of good loaf sugar with the usual quantity of cream of tartar. Pour it on a warm slab, colour one half of the boiling red, and pull the other half over the hook; if the slab be not very warm lay both the red sugar and the pulled on a piece of hard wood, which will keep it moister than the iron would, then cut off a small

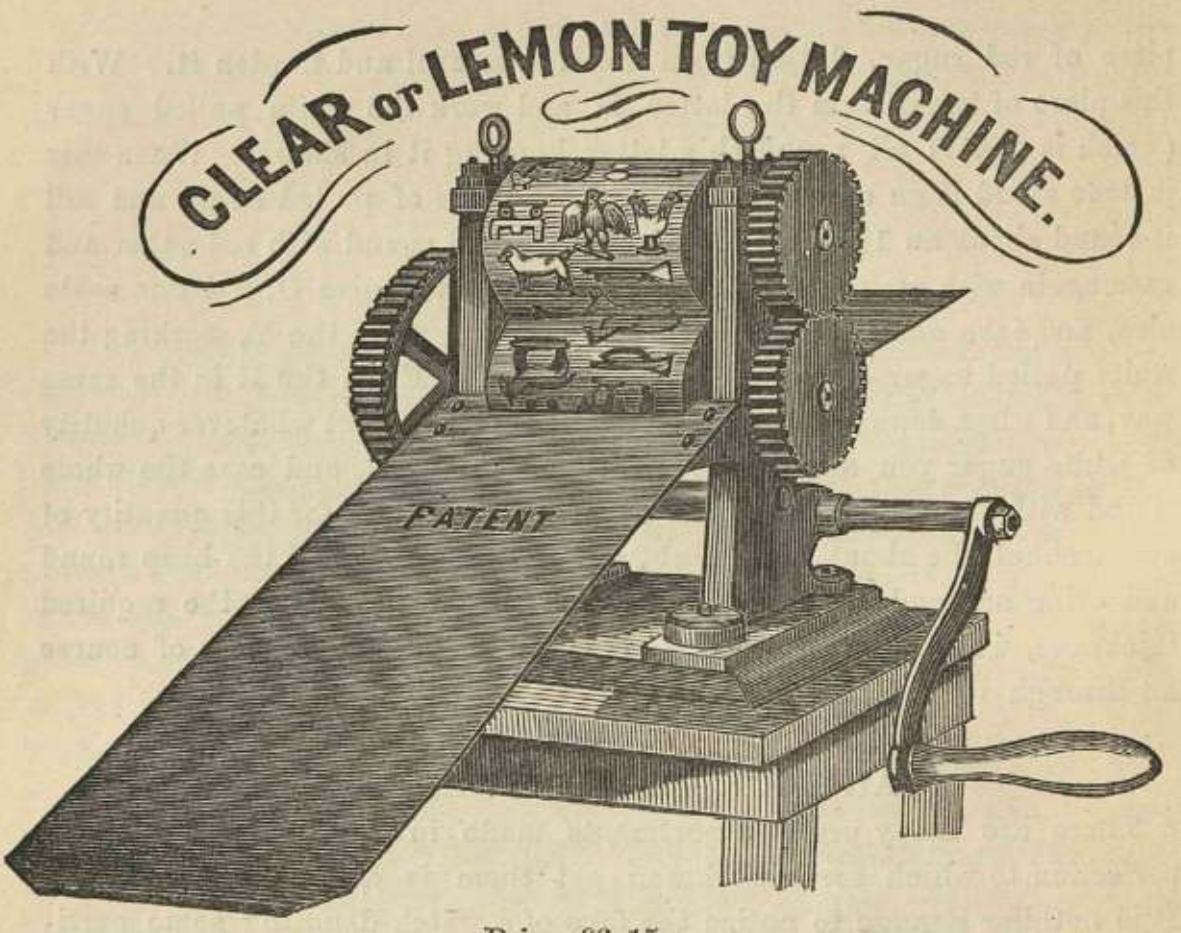
piece of red sugar, flatten it on the slab to cool and harden it. With this piece of sugar form the letter L and work the white pulled sugar (which is stiffer) all round this letter keeping it in shape. When this is done stand it on one side, take another piece of pulled sugar and roll it round about an 1½in. thick and case this all round with red sugar and case again with white sugar over the red, this will give O, put this aside also, and take another piece of red sugar and form the V, working the white pulled sugar all between and round it. Form the E in the same way, and when done lay them in order—LOVE, and put whatever quantity of white sugar you may have left round the word, and case the whole round with the remainder of red sugar. The letters for this quantity of sugar should be about 1½in. high, and in proportion roll the heap round and bring one end down to a point and pull off the sticks the required thickness, when chopped up in pieces the word should show of course all through the stick.

STAR ROCK OR ROCK VARIETIES.

There are many pretty assortments made in these rocks, and the perfection to which some workmen get them is something wonderful. It is nothing strange to notice the face of a watch denoting some particular time of the day, staring from a bottle of these sweets and even animals of all kinds, statutes, and likenesses all follow in their turn, as well as stars of various colours and shapes. They are all made in the same way as the example in the preceding recipe. My remarks may practically assist, but the learner if he has only them to rely on must depend greatly on his own judgment and tact.

BOILED SUGAR FIGURES.

Iron moulds are made by confectioners' machinists for casting boiled sugar in, they may be had to turn out all kinds of figures, such as dogs, cats, elephants, &c., &c. They are very popular among the children, and sell well in certain districts, and show a handsome profit. The moulds are generally made in two parts, they must be well oiled, the sugar boiled as for drops, fill the mouth full, and just before the whole mass sets pour as much of the sugar out as will run; this will leave only a thin coating which clings to the sides of the shapes, and will easily come out when the mould is parted, then you have the figure complete but hollow.



Price £6 15s.

BOILED SUGAR MEDALS.

Machines may be bought for some kinds of medals, others are run in moulds, some are cut off in pieces from the solid boil and put into little round tin frames and pressed on the top, while warm, with a die.

TO CRYSTALIZE BOILED SUGAR DROPS.

Several of the descriptions of drops are sold as crystalized, and some look very pretty, the process is simple and may be done with very little trouble, when the goods have been passed through the machine break them up when set, but while warm sift them well in a coarse sieve and shake them over your pan while boiling, so that they may be damped from the steam, throw them amongst a heap of crystal sugar, mix them up well, let them stand till cold, and sift them. Another method is to have a thin solution of gum and rub it well amongst the drops, when sifted instead of steaming them.

IMITATION INDIAN CORN.

A very good imitation of real Indian corn is made as follows :—boil the sugar as for other drops, with usual cream of tartar, flavour and colour the boil yellow, pull half of it and case it over with the plain sugar, loosen the screws in a pair of thumb rollers a little and pass the boil through, cut the pieces about the length of the corn pod and when cold fold them over loosely in shape.

CHERRY PIPS.

Boil as for other drops with the proportion of cream of tartar. When on the slab flavour with essence of cherry and a little acid, colour one half of the boil red and pull both halves, pass through the small acid drop machine.

ICE CREAM CONFECTIONERY.

This form of boiled sugars has been long in vogue in America, and has lately appeared in the windows of several of the London sweet shops, principally in the West End, and still very freely; it may be made as follows :—boil 7lbs. of loaf sugar with three pints of water, add a small teaspoonful of cream of tartar, allow it to boil for ten minutes, then add one pound of fresh butter; it will then commence to froth up and care must be taken that the pan is large enough, as the syrup will occupy twice the space than if there had been no butter added ; boil this mixture to the degree of a very weak crack or 285 by the thermometer, at which point it is done ; pour it on the slab which has been of course previously greased. As soon as it begins to cool, turn it up and knead it until it gets stiff enough to pull over the hook. When on the hook pull it sharp until it gets as white as snow, this white is usually flavoured with Vanilla or oil of lemon; it may be either pulled out in bars or left in the heap ; it is very easy broken in small pieces for retail purposes. In the summer or hot weather keep this toffee from the air, or it will be inclined to be sticky ; this eats very rich and commands good sale at the best price.

RASPBERRY AND STRAWBERRY ICE CREAM CONFECTIONERY.

This is made exactly as the last, with the addition of a little red colour before the boiling is poured out, or it may be coloured on the slab; add a little essence of raspberry or strawberry and a pinch of tartaric acid just before pulling the boil. Colour the raspberry a little deeper than you would strawberry.

CHOCOLATE ICE CREAM.

To make chocolate ice cream, boil the same quantities as before, precisely in the same way in every particular; when the sugar has been poured out, work well into it half a pound of powdered chocolate; knead this well up in order that the chocolate may be well mixed with the sugar, put in sufficient chocolate to give the boil a dark brown colour, otherwise it would be too light when pulled.

BURNT ALMONDS.

Boil 5lbs. of loaf sugar with two pints of water, as soon as it boils add 2½lbs of Valencia almonds, and boil to ball height, take it off and grain it by stirring it with the spaddle until it gets into a powder; put them into a coarse sieve, sift and part them, after which divide them into three or four equal lots, with their fair share of siftings; put a thin iron plate over the stove, put one of the lots into the pan, which place on the top of the iron plate that covers the stove to break the heat; the siftings will gradually dissolve and adhere to the almonds, which will become crisp, when done (which you can tell by tasting) turn them out and serve the remainder the same way. They are then ready for sale, but, to make them crinkly and put a finished appearance on them, boil to crack or a little above, 5lbs. of sugar in another pan, replace the almonds in your pan (which must have been cleaned), pour over the almonds this syrup in two coats, stirring them each time.

ON CARAMEL RECIPES.

I have great pleasure in giving my customers the benefit of these recipes for caramels. They were until very recently strictly an American sweet, but since their introduction into England they have gained great popularity, being sold very freely in the lowest and poorest quarters of London, at two-pence per ounce; in the West End the same goods fetch double that price. These few American recipes cost the writer the price of nearly forty hand-books, besides a great deal of trouble and correspondence to get them at all. I have had several letters from subscribers enquiring what "glucose" was, as it is used largely in caramels, it will perhaps be as well for me to mention here that glucose is a beautiful white and clear syrup extracted from wheat starch, being a chemical conversion of the sugar found in it. Some sugar boilers use it in boiling sugar for drops, &c., in lieu of cream of tartar; but where I would recommend its use I will mention it. Should country readers find a difficulty in buying it, the publisher will forward it in quantities to suit them.

VANILLA CARAMELS, No. 1.

Put in your boiling pan 6lbs. of best sugar and two quarts of sweet cream, mix it well by stirring with the spatula, then add 4lbs. of glucose, put it on the fire and stir constantly, or the cream will cause it to burn, let it boil a quarter of an hour, add 1½lbs. of fresh butter, then commence to try the sugar with a pipe stem or the finger (the thermometer cannot be used in making these goods, on account of the stirring); as soon as the sugar will crack, when taken off the pipe stem, take the pan off the fire, add two tablespoonsful of the extract of Vanilla, stirring very briskly; then pour the boiling on the plate, which should be oiled, see that the pouring plate lies level, so that the boil may be the same thickness all over; when nearly cold mark it or cut it into pieces three-quarters of an inch square. In the event of it not being convenient to get sweet cream, use three cans of condensed milk, reducing it with water to the consistency of cream. An Everton toffee cutter may be used to cut caramels, see Everton toffee.

N.B.—The finger test. It may seem rather alarming to put your finger in the boiling liquid, however, if you wet your fore finger with cold water, and dip it sharp into the syrup, catch a little of it on the finger, pull it out and dip again directly into the cold water, it will not burn you in the least; at first a jelly like matter will run off your finger, repeat the test every few minutes until the syrup, which adheres to the finger, slips off in a little lump, and when pressed will snap like glass. This is the proper way to test these goods, but the timid may use the pipe stem as directed under sugar boiling.

VANILLA CARAMELS, No. 2.

Boil 5lbs. of sugar with three pints of milk, keep stirring all the time while on the fire, when it boils add a teaspoonful of cream of tartar, allow it to boil for ten minutes, then add 1lb. of fresh butter; in a few minutes commence to test the boil with the finger or the pipe stem, as in the previous recipe. When it has reached the same degree remove it from the fire and stir in a couple of tablespoonsful of the extract of Vanilla, stir very gently, being careful not to stir it again after being taken from the fire; pour on the oiled slab or in frames, and cut or mark as in the last. These caramels will be of a cream colour.

RASPBERRY OR STRAWBERRY CARAMELS.

These flavours may be used in either of the foregoing recipes; the best according to the first, and second quality according to the second; in fact, when you get thoroughly master of them you may use any flavour.

MAPLE CARAMELS.

By using pure maple sugar, caramels may be made precisely as Vanilla, except that the flavour of the maple sugar is sufficient without any other. These caramels would of course be dark.

CHOCOLATE CARAMELS No. 1.

Six pounds of best sugar, two quarts of sweet cream, stir it well together, add 4lbs. of glucose, put the pan on the fire and keep stirring it; when it has boiled for ten minutes add 1½lbs. of fresh butter and 1½lbs. of Caraccas cocoa paste. Keep stirring very briskly or the cream and cocoa paste will burn, this will keep thickening as it boils until it gets like a pudding; keep trying it with the finger until it cracks, then take it off the fire, add two tablespoonsful of Vanilla extract, and pour it on the slab; cut or mark it as before described.

CHOCOLATE CARAMELS, No 2.

Mix 5lbs. of best sugar with one quart of new milk in the boiling pan, and place it on the fire; when it comes to the boil add a small teaspoonful of cream of tartar (when it has boiled ten minutes), ¾lb. of fresh butter, and ¾lb. of chocolate paste; keep stirring it continually; in a few minutes commence to try it; as soon as it gives the sharp crack remove it from the fire, stir in two tablespoonsful of the extract of Vanilla, and pour on the plate; stir this very gently when putting in the Vanilla, as it is liable to go grainy on account of the milk; cut it up in small squares as before directed.

N.B.—In hot weather we have seen these squares wrapped in waxed tissue paper, singly, which make them keep much better and eat very rich and mellow. Caramels made according to these recipes are of an A 1 quality.

EXTRACT OF VANILLA.

The exceeding fine and delicate flavour of Vanilla is difficult to get in its pure state, owing to the high price of the Vanilla pod, and like everything else that is good and expensive, it is very liable to be adulterated. This flavour is often blended with the tonka bean, an article very much resembling the true Vanilla in flavour. As this flavour is a great favourite with the confectioner and public, as is used chiefly in white goods as a rule, it is important to get it as free from artificial colour as possible, therefore it is wise to go through the process

of extracting it for your own use should any quantity be required. The following is the proper method of doing so with and without the addition of the tonka bean. In selecting the Vanilla beans, choose those which have a soft dark pith, which oozes out when cut. See that they are fresh. Cut, say 1oz. of Vanilla beans about one-eighth of an inch in length, put them in a glass vessel with 3ozs. of alcohol and 2ozs. of water, let them stand two or three weeks. This extract will have a fine flavour and a delicate brandy colour.

TO EXTRACT VANILLA WITH TONKA.

Pound 2ozs. of Vanilla and 8ozs. of tonka, soak in one quart of alcohol and half-pint of water for three weeks, strain through a fine cambric and cork down in bottles for use.

HINTS TO LEARNERS.

Having now brought my remarks on sugar boiling to a close, not for want of matter, but simply because I think I have said sufficient, without being tedious, to fairly instruct any one endowed with a reasonable amount of tact and understanding to become a sugar boiler, so far as it is possible to do so by means of a book. I have written in plain workmen's language (as I am master of no other), trusting I shall be understood and my recipes workable in every sense of the word, I can say with confidence I have written nothing but what is genuine and correct. I see no obstacle in the way of a man or woman by means of this Handbook becoming a very fair sugar boiler, and if the reader will follow my advice he would make commencement with toffees, then candies or creams, and follow on with plain machine drops, such as acids, pears, and raspberry, &c., then try his hand with stripes and other fancy rocks and drops, the latter will be better understood by the experience gained in making the former. Should you burn your fingers or spoil a boiling, you know my address, and can blow me up per post.

SHERBERT, OTHERWISE LEMON KALI.

Mix 9lbs. of powdered loaf sugar with 2¾lbs. of pulverized tartaric acid, and 2½lbs. corbonate of soda, add ½oz. of the essence of lemon ;

two or three drops of otto of roses improves the fragrance. Sugar for this purpose is generally ground with a sugar mill, but small makers may do so with pestle and mortar, sifting the sugar after through a fine wire sieve. 20lbs. may be easily ground and sifted with a heavy cast-iron pestle in an hour. Should the tartaric acid be hard and lumpy, rub it down with a rolling pin or heavy bottle to a powder. Mix in ingredients well with the hands before adding the flavour, after which pass the whole through the sieve once or twice and bottle, when it is ready for sale; this is a first class article, but the reader may alter it a little according to his liking. Should a cheaper article be required it is possible to adulterate it by using ground alum in lieu of so much acid. The adulterated article is not so wholesome, and should not be resorted to; however, it is done in the trade and sold in large quantities, otherwise I should not mention it.

Be careful in buying tartaric acid that it does not already contain a portion of alum which is frequently the case.

RASPBERRY SHERBERT.

This is made in exactly the same way as the foregoing. When the ingredients have been thoroughly mixed, add sufficient cochineal to colour the whole pink, and flavour with the essence of raspberry in lieu of the lemon mentioned in the previous recipe.

N.B.—Sherbert cannot be coloured by an analine dye known as magenta crystal or rozine, the acid turns the colour blue.

THE DRYING ROOM.

This room is indispensable to makers of dry goods, such as lozenges, pan goods, liqueurs, creams, and every description of fancies, as well as gums. The size of the room would of course depend on the requirements of the business, but a room, say 10ft. square, would be large enough for a moderate trade. It should be fitted with racks, forming as it were, shelves to slide the trays into, say about 4in. apart; the trays simply require supporting at each end so that pieces of timber 2in. by 1in. would be strong enough, provided there was an upright between each row of trays. This room may be heated by a small iron stove, use

care that it does not get over-heated; the degree of heat should be regulated according to the class of goods in the room, but where a general stock is in the room at one time, have the room a good warm summer heat. As a rule, if the drying-room is kept to about this degree, it will suit almost any kind of sweets. Where a steam boiler is used, the drying is usually heated by means of steam pipes running through it. The trays for starched goods should be made of hard dry wood about 36in. long and 20in. wide with edges a full inch deep.

MOULDS FOR CREAMS, LIQUEURS, FANCIES, &c.

These moulds are generally made by the workman himself from plaster of Paris. Dilute the plaster of Paris with water to the consistency of thick cream, and run it in a block when it sets hard, cut or break off a piece then with your pocket knife, carve it into any shape you require, but by far the most expeditious way, and the plan generally adopted by the trade, is to buy two or three pennyworth of soft clay from a tobacco pipe maker, select a few sweets or other articles from which you want the moulds taken from, and press them into the clay, extract them carefully so as to leave the impression as clear as possible, dilute a little of the plaster with water, as mentioned, and pour it into the impressions formed in the clay, when set, take them out and clean off with your knife on a board a little longer than your trays are wide, make a level smooth surface and stick your moulds on, about an inch apart in two rows, keep your moulds till wanted in a dry place.

NOTE.—The plaster must not have too much water with it or it will be porous when dry, causing the starch flour to stick to them when moulding.

LIQUEURS.

There are a great variety of liqueurs now sold by confectioners, they form the chief attraction in London and other mixtures, having a nice clean appearance they show the colours to perfection. It is a matter of wonder with most people how the liquor can be run into sweets of such small dimensions and the aperture to be so nicely filled up, nevertheless there is no class of sweets so easily to make as these, in fact

all the trouble is with the moulds. If the reader will carefully follow my remarks on moulds he will soon be able to get the moulds made (the writer was always a miserable artist in cutting moulds from the little blocks of plaster, therefore always adopted the plan of taking the pattern of some one else's sweets making the impression in soft pipe clay and running the plaster in it), when the moulds are well made they will last for years. Liqueurs intended for mixtures are made much stronger and rougher than those which are packed in boxes to be sold as a speciality, such as brandy, almonds, rings, &c., the only difference is in boiling the sugar, when wanted for mixture boil the sugar 5 degrees higher than those wanted separately. The liqueurs for mixtures will only require to be in the drying-room three or four hours, while the best quality must be in ten or twelve hours.

LIQUEURS FOR MIXTURES.

Have your trays filled with thoroughly dry starch powder (if the moulding starch be new it must be spread out in the trays and kept in the drying-room for a week before being used), it is important that it is quite dry or its goods will cling to the powder), smooth off the surface on a level with the edges of the tray by running a smooth stick along the tray, then take the stick on which the moulds have been glued and make the impressions in the powder; boil a sufficient quantity of sugar to a strong thread, 285 by thermometer, when ready take it off, colour it if required, and flavour with a little essence of any description, and run this syrup into the moulds made in the starch powder. When all the moulds have been filled, dust a little starch powder over the liqueurs by sifting it over them through a fine seive, and put the trays containing them away on the racks in the drying-room for three or four hours, when they will feel crisp, which you can easily see by taking one out with your hand, squeeze it between the fingers, if sufficiently set take them out of the starch powder and sift them, blowing off any starch which may adhere to them with a pair of common kitchen bellows and place them in the crystalizing tin, as described below. Of course you must handle these goods tenderly, so as not to break them.

TOOLS AND MATERIALS USED IN MAKING LIQUEURS AND OTHER FANCY GOODS.

The tools and appliances needed for these goods are few, simple, and inexpensive, and may be enumerated as follows:—A confectioner's stove, a copper boiling pan, a confectioner's thermometer, a wooden box to keep the starch powder in, which should be 4ft. long, 26in. wide and about 2ft. 4in. high; fix two pieces of narrow wood across this box a foot from both ends to take the bearing off the trays when being smoothed off and moulded. It will be observed that the mouth of this box is larger than the trays, that is for the purpose of catching all the flour that may run over the sides and ends of the trays while being smoothed off with the stick. The runner for filling the starch moulds is a very simple tool, being made by a tinsmith exactly similar to a tun dish or filler used by publicans for putting into the necks of bottles and jars to empty the spirits or beer through, have a hole in the bottom about half-an-inch in diameter, it has two little turnover handles at the top opposite each other. The runner should be large enough to hold two or three pounds of syrup. When filling the moulds hold the runner with both hands by putting the little fingers through both handles, have also in the right hand between the fore-finger and thumb a piece of stick long enough to reach the bottom of the runner so that you may regulate the stream, or stop it altogether when required, by plugging the hole. A few trays will be necessary which I have already mentioned under drying room. The starch powder is in appearance like farina, and is used by all confectioners for moulding purposes. Glucose is a syrup the best qualities of which are transparent, original casks generally weigh from 5 to 9cwt. It may also be had in a solid form, and is packed in convenient cases containing 1 cwt. each. The syrup is generally preferred, but where the bulky packages would be objectionable the solid may be used with equal success. Crystalizing tins should be made of good strong tinned iron, 24in. long, 14in. wide, and 4in. deep, with a hole at the bottom in one corner for drawing off the syrup when crystalized sufficient. With the exception of a hand brush and a pair of bellows these are about the only tools required in the starch or moulding room. A handy man may make his own trays and starch box, or a carpenter would supply them, the size mentioned, the price being about two shillings per tray.

TO CRYSTALIZE LIQUEURS, CREAMS, GUMS, &c.

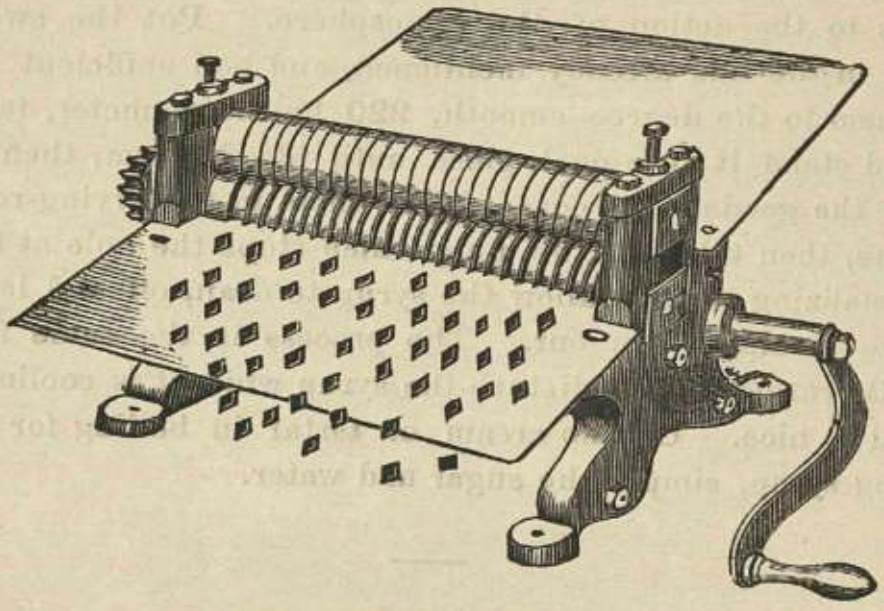
To crystalize the above is a simple process. It consists in enveloping confections in a thin coating of crystals, whose sparkling appearance adds to their beauty, and has the advantage of rendering them almost impervious to the action of the atmosphere. Put the sweets to be crystalized in the tins already mentioned, and boil sufficient loaf sugar to cover them to the degree smooth, 220 by thermometer, take it from the fire and stand it in a cool place until blood warm, then pour this syrup over the goods until covered, put them in the drying-room for 10 or 12 hours, then take out the plug which stops the hole at the bottom of the crystalizing tin and allow the syrup to drain off and let them dry well before turning them out. The process is the same for all fine goods. Be careful not to disturb the syrup while it is cooling, or it will not crystal so nice. Use no cream of tartar in boiling for liqueurs or crystalizing syrup, simply the sugar and water.

BRANDY ALMONDS, &c.

Smooth off the trays and mould with the almond moulds, boil the sugar to the degree 230 by thermometer, flavour with real brandy or the essence of brandy, if the spirit is used let the sugar cool a little before you add it, and immediately it goes in pull a cloth over the mouth of the pan to prevent evaporation as much as possible, stir it round gently to mix the flavour in, run the moulds full as directed, and leave them in the drying room for 10 or 12 hours; crystalize as directed.

NOTE.—All kinds of liqueurs may be made according to the foregoing recipes, colour and flavour according to the shape you intend to run. In using colours do not make them too deep. The syrup that runs off the goods when crystalized should be reboiled for common goods; blow the starch off as clean as possible before crystalizing. It would simply be a repetition to give more recipes in this branch, therefore I will avoid that, as I have no wish to fill my book with anything not to the point, nor do I wish to waste your time reading the same thing over again; what I would wish to lay before you is matter not for amusement, but for business, therefore I must have your assistance to make a variety of these goods. When you have everything ready for a beginning, go to

a respectable confectioner's shop, have a good look in the window, select what you require, and buy two or three pennyworth of assorted, and study the different shapes, flavours, and colours, and imitate them as well as you can.



GELATINE GOODS.

These are goods of recent introduction, and are made in a variety of shapes; they sell very well on account of the low price at which they can be produced. Made according to my recipes they are wholesome and nutritious, and when made carefully of good ingredients they have a nice taking appearance. There is very little trouble in making the jube or jelly, the only bother is to know what to do with it, as it is made into hundreds of different shapes, colours and flavours, such as figures, pastiles, dates, pear shapes, rings, shrimps, animals, &c., &c, all of which are moulded in starch powder. It is also run into square tins and cut up into square or diamond-shaped jujubes of every colour, flavour, and name, or it is mixed with grated cocoa nuts, jams, fruits run into tins, cut, and formed into various shapes, such as jam roley-poley, cocoa nut squares, fruit cakes, sandwiches, sweet tarts, &c. In fact I could fill the entire space in this work with recipes made from gelatine, the assortment is so numerous, but what I said in regard to liqueurs will in a great measure apply to these goods; I will, therefore, content myself with selecting half-a-dozen of different recipes, which will embrace all that is necessary to know to make the reader master of

the entire assortment, which will be more to his interest than to keep playing on the same string. I should just like to mention one thing more in reference to these, that is, every workman does not adopt the same method in every particular. Should this book fall into the hands of a workman who belongs to this branch of the business, and finds my system not like his own, I hope he will not condemn mine, simply because he uses another, without giving me, or rather my recipes a fair trial. Of course I am not infallable, still I have made these goods for many years to the satisfaction of my employers, who were, to say the least of it "particular."

DIAMOND JUBES (GELATINE).

Boil 7lbs. of sugar with 3½lbs. of glucose, and 3 pints of water to the degree of feather (see Sugar Boiling); lift it off the fire. Have by your hand 2lbs. of gelatine which has been previously soaked in cold water for twelve hours, add this to the boiling, and stir the whole until the gelatine dissolves, then add 3½oz. of powdered tartaric acid, a few drops of the otto of roses, and colour with cochineal or liquid carmine a delicate pink, pour the whole out into square tins; this will set in three or four hours sufficiently to cut up, this may be done with scissors or machine. (See illustration on the preceding page, price £9 10s., from the Author.)

N.B.—Under no circumstances colour gelatine goods with analine dyes, use carmine or cochineal for red, saffron for yellow, and vegetable colours for the others. Always crush the acid before putting in the pan. Do not over do it with otto of roses, as too much is worse than none at all. Never put the pan on the fire after the gelatine has been added; the gelatine varies in thickness, and the time in soaking will depend upon the quality and thickness, 12 hours being the medium.

ROSE AND LEMON JUBES.

Boil, as directed in the last recipe, 8lbs. sugar, 4lbs. glucose, and 3½ pints of water. When ready, add 2lbs. of gelatine which has been previously soaked, stir until dissolved, add 3 or 4ozs. of powdered tartaric acid, mix it in, and half the boiling into another vessel, flavour rose and

colour pink one half, and flavour the other half with essence of lemon pour into square tins and cut up when set, mix the two colours together, and crystalize.

WEDDING CAKE JUBES.

These are made precisely as the last so far as the boiling and ingredients are concerned. When the mixture has been got ready and flavoured, pour a thin coating over the tins, saving a little to make a milk white colour; to do this, mix some tartaric acid, carbonate of soda, ground sugar, as for sherbert, but with more acid and soda; add a tablespoonful of this mixture to the jujube left in the pan and stir it up briskly with the spatula. This will cause it to rise in the pan and become white, like pulled sugar, spread this over the jube that has been run in the tins. A very pretty jube is made by running a different colour over the white, making in all the three colours in each jube when cut up; say yellow at the bottom, white in the middle, and red on top, each colour must be partly set before another is put on top, and the colour that is being run on top must be only blood warm, otherwise the colours will mix together and become a conglomeration.

ENGLISH DELIGHT, &c.

English Delight, John Bull's Pleasure, &c., &c., are all made as the three previous recipes, but are simply cut into long bars, crystalized, and cut up into the required pieces, when sold retail. Sells remarkably well.

HONEY PASTILES, &c.

Honey pastiles, as well as all other moulded gelatine goods, are made according to the previous recipes. The trays are prepared as for liqueurs; mould any shapes you fancy; colour and flavour accordingly, and run them with the same runner; they do not require the drying room; take them out of the starch powder when set, clean them off and crystalize.

STRAWBERRY PASTILES.

Prepare the mixture as above, smooth off the trays and mould with strawberry moulds, run the moulds only half full with the yellow jube,

then colour the remainder red and fill up the moulds when set: sift them out of the starch powder and crystalize them. Of course the mixture would be flavoured with the essence of strawberry and a little acid.

N.B.—After the jujubes have been crystalized they ought to dry in two or three hours. Should they remain damp there is too much water with them, either the gelatine has remained too long in soak, or the sugar has not been boiled high enough. Should they be too dry and stiff for your liking, the reverse is the case. I cannot give you positive instructions on account of the difference in gelatine, but you can easily rectify any mistake by attention to my remarks above; and when you have got them right you may make as many varieties as you please with confidence.

TO CRYSTALIZE GELATINE GOODS.

Have some white crystalized sugar (Bristol or Scotch crystals); when the jubes have been run in tins and cut with scissors or machine, simply mix them in the crystal sugar directly they are cut, and sift them in a few minutes in a coarse sieve. When run into starch moulds sift them out and brush off the starch as clean as possible with a hard brush; put them in a pail of cold water, swill them round with the hand and drain the water off directly, and throw them amongst a heap of crystalized sugar; mix them up well, sift them, and spread them on trays to dry; in summer a current of air will be sufficient to dry them, in winter an hour or two in the drying-room will not hurt them.

NOTE.—The reader will observe the process is extremely simple, and from experience I can say few if any goods sell so well or pay better to make. Jubes made in this way would not cost more than threepence per pound, and I know many sweet shops in the country paying sixpence to tenpence per pound to wholesale houses for them. The requisite tools are few and simple; if any difficulty is found in procuring them, the Author will supply them at trade price on receiving a few days notice.

FANCY GOODS.

There are a great number of fancies made from grain sugars sold about Christmas time. Their beauty and attractiveness depends upon the moulds from which they are moulded, and the taste displayed in

painting or decorating them. The goods themselves are quite a secondary consideration, being so simple to make ; the small sorts, sold at a farthing, halfpenny, and one penny each, are nearly all moulded in starch powder (the others I will notice further on). The shapes consist of pigs heads, violins, slippers, dogs, cats, rabbits, and other similar things ; the troublesome plaster moulds being the chief obstacle (already referred to). The process is as follows :—smooth off the trays and mould with a variety of fancy shapes ; boil sufficient sugar to fill them, with the usual quantity of water and a pinch of cream of tartar, to the degree of ball, 250 by thermometer ; remove it from the fire and rub the sugar against the side of the pan until thick and white ; stir it all together, then fill the moulds through the runner. Three or four trays will do very well for fancies. Too much sugar must not be boiled at one time, or it will set before it can be all run into the moulds : two or three pounds will be enough for a beginner to practice with. They will be hard enough to be taken out of the starch in fifteen to thirty minutes, according to size, after being run ; brush the starch powder off as clean as possible, and they will be ready for decorating.

ARTIFICIAL FIGURES.

Fruit, eggs, and any object may be taken from nature by this process, to be transformed into sugar, afterwards glazed and coloured, to imitate nature so exactly similar as to deceive many persons. These moulds must be made in two, three, or more pieces, so as to relieve freely without injuring the casting ; each part must fit together exactly ; for this purpose make two or three marks or figures on the edges of the mould, to correspond with similar marks on the counterpart, so that the pieces to form each mould may be fitted with precision. Simple moulds in two pieces may be made by the workman ; such as eggs, apples, pears, &c. ; but where intricate objects are required, such as swans, baskets of fruit, &c., it is advisable to have them made by an experienced mould maker. Let the object from which you require the cast be partly embedded in soft pipe clay, or modelling wax, leaving so much of the mould exposed as you wish to form at one time (if in two pieces say half), and oil it with sweet oil. Mix some plaster of Paris with water to the consistency of thick cream, and pour over the exposed half ; when this has set, turn

the object over, embedding the half taken, and pour the plaster over the other half; the mould will then be complete; with a pen knife scrape out a hole at one end, into which the sugar may be poured. The moulds must be soaked an hour or so in cold water, previously to being used, which is better than oiling, as it keeps the sugar a delicate white. Boil the sugar in exactly the same way as directed in the previous recipe, grain it and fill the moulds; in a few minutes run out as much sugar as will leave the mould, this will cause the casting to be hollow in the centre. Colour your articles to imitate the natural objects which they represent with liquid colours and camel's-hair pencils; if a gloss is required, the colours should be mixed with a strong solution of gum arabic or isinglass to the desired tint.

TO DECORATE FANCIES.

This is done with various colours put on with a camel's hair pencil or brush, the execution of which depends upon the ability of the artist; also with what is called in the trade piping, this is made by mixing fine powdered sugar with the white of eggs to a stiffish paste, this may also be coloured if required; it is put on by means of small pipes or tubes made purposely (by machine makers); a stiff paper bag may be used for this purpose; they are most generally made with writing paper folded in the form of a cone, similar in appearance to what grocers usually do small parcels of sugar and tea in; the bag is filled with icing or piping, the mouth of the bag is turned down to prevent the escape of the piping, the point is then cut off with a pair of scissors or a sharp knife, to make a hole through which the icing passes to the goods. In using this bag sqeeze the sides together, when the icing will protrude from the small hole at the bottom. Some practice will be necessary before the learner can fully understand and work out this process satisfactory. Some of the tin pipes which are used cannot be imitated by paper, the holes at the bottom having different devices; some fluted to form stars, while others are flat, which, when the icing is squeezed through, forms a tape, others form various descriptions of fancy work. Where any quantity of this work requires to be done, it is certainly cheaper and better to buy a set of tools, which are not very expensive and are always ready for use.

CREAM FONDANTS.

Boil 7lbs. of sugar with three pints of water and a teaspoonful of cream of tartar to the degree feather, or 240 by thermometer, take it off the fire, let it stand a few minutes, then use a pallet knife or spatula, and rub the sugar against the sides of the pan until it becomes thick and like so much cream; have your starch trays smoothed off and mould with the fondant shapes; flavour the cream and run it into the moulds; flavour the white with vanilla and the red with raspberry; they are usually made in these two colours only. When set take them out of the starch and crystalize them in the same manner as directed for liqueurs, viz.: with syrup.

N.B.—Rich creams, made according to the above recipe, may also be run into tin frames and shapes, flavoured with any kind of essence or mixed with cocoa nut slices, almonds, jams, fruit, &c., according to fancy. Many nice eating cream cakes are made in this way, which sell remarkably well.

CREAM FONDANTS (BEST).

Although the majority of fondants are made according to the foregoing recipe (especially the cheap ones), nevertheless, the following is the proper and best method of making them. Boil 7lbs. of sugar and 2lbs. of glucose with three pints of water, to the degree of feather, 240 by thermometer, pour it on the slab, then with a pallet knife rub the syrup against the plate until it all becomes white and stiff in appearance like an irregular lump of white curd; take this off the plate and put again in the pan, and melt it over a slow fire, stirring it all the time; when it melts sufficiently thin to pass through the runner fill up your moulds, which of course must have been previously made in the starch powder; when set sift them out of the starch, clean off and crystalize with syrup.

NOTE.—Great cleanliness must be observed all through this process. When the sugar first comes through the boil use a skimmer and take off any grit or dark matter that comes to the top of the boil. See there is not a speck of dirt on the pouring plate, otherwise these goods will show it and be spoiled. Use best sugar only, and a small pinch of blue in the white will improve, if you do not put too much, which I see very

often happens. Flavour the different colours to fancy, but Vanilla is nearly always used for whites. The very best quality of fondants are made from this recipe, such as spring flower creams, birthday creams, and a variety of others, but as I have said before, variety simply consists in shapes, colours, flavours, and names. I shall mention every distinct variety, where there is any difference in the ingredients or boiling, but the reader must work out varieties of the same goods. I have adopted this course in the interest of my customers, as it is my wish that they should take the trouble to read what I had the labour to write, without getting tired by sameness or repetitions.

COCOA NUT CREAMS.

These are made generally from the same recipe as fondants No. 1, although some make them according to the second or best fondant recipe; however, in either case, the only difference is the addition of some finely grated cocoa nut, which is mixed in the boil previous to running it in the moulds; run the impressions in the starch only half-full with the white colour, colour the remainder red with cochineal, and fill the moulds up; when set sift them out of the starch, clean off, and crystalize with syrup as directed for liqueurs.

CHOCOLATE FONDANTS.

Chocolate fondants are made exactly the same as the others, with the exception that chocolate paste is mixed with the cream before running the top parts of the fondants. When the sugar has been boiled and prepared, flavour the white with a few drops of Vanilla, run the moulds half-full, then add chocolate paste or pure cocoa to the remainder of the cream, sufficient to colour it dark; put the pan over a slow fire, keep stirring all the time until the chocolate melts and mixes thoroughly, then run the moulds full; when set sift out of the starch and crystalize.

PINK AND WHITE MICE.

These are made in the same way as other creams; some prefer them soft and some hard; this difference is made by adding cream of tartar with the sugar when boiling for the former, for the latter boil the sugar

without. Pink and white mice are not usually crystalized. If the mice require tails cut short pieces of string and lay them in the moulds before running the sugar in.

GUM GOODS.

In the manufacture of gum goods by fire heat, the process is tedious and tiresome, and considering the time required to produce a perfect jujube or pastile, the writer is of opinion that it is not a profitable undertaking for a small confectioner. There are many other branches the small maker could turn his attention to in which the goods could be turned out with dispatch, less trouble, and in much less time, and would not be attended with the same risk; in fact, making gums is a process which should not be adopted by a novice, as it would be impossible to impart sufficient directions that would enable a beginner to carry through the details of the work. There are so many sorts and qualities of gums that it requires experience in selecting those suitable; some gums are only partially soluble in water, others are soluble only in spirits or essential oils, and are of no use to the confectioner. The gums used by confectioners are: gum Arabic, Magador gum, and some sorts of East India gums. These goods can only be made to advantage where steam is used as a means of cooking; by this system large quantities are prepared at one time, for example, a pan containing from 14 to 20lbs. of gum mucilage would require to remain on the fire from eight to twelve hours before coming to a proper consistency for moulding; while a steam pan, containing from one to two cwt., may be done sufficiently in a tenth of the time; therefore, in this instance it will be seen that it would be utterly futile for a maker by fire heat to try to compete with steam power; by the latter method they have also a much better appearance. People residing in the United Kingdom have no difficulty in purchasing gum goods of every description, still, that is no reason why I should deprive customers living in other parts of the world, who are not so situated, from information which might be valuable to them. In making from the following recipes, should the reader have steam power of course increase the quantities in proportion according to the size of the steam pan.

GUM PASTILES.

To make these by fire two pans will be necessary, one made to fit in the other, leaving sufficient space between for a quantity of water ; put in the inside pan 9lbs. of Turkey gum, from which all the grit, &c., has been taken, with 6lbs. of sugar and six pints of water; put both pans on the fire with water between. It will take from five to seven hours to form into a thick mucilage, when it is ready, flavour with a few drops of otto of roses, two colours are generally used, viz., pink and yellow ; crystalize them as directed for liqueurs.

NOTE.—Keep the gum occasionally stirred, also see that the water between the pans is not allowed to get too low by evaporation, it will require to be renewed several times during the operation. As the scum forms on the top remove it, or the jubes will not be clear.

PINK JUJUBES.

Proceed as for gum pastiles, use 16lbs. of gum to 6½lbs. of sugar, when ready run them in square tins, put them in the drying room till stiff, cut them up with scissors or machine to the size required ; these do not require crystalizing, flavour with otto of roses, be careful not to use too much or it will spoil the flavour.

CLEAR PINE JUBES.

Same quantities as for pink, but the gum must be picked and free from any dark pieces, tinge with saffron, flavour with pine apple.

CRYSTALIZED JUBES AND GUM DATES.

These are made in the same manner as gum pastiles, using the same proportion of gum and sugar, flavour to taste, use no acid in gums.

ANOTHER METHOD OF MAKING GUMS

Is to dissolve the quantity of gum in its proportion of water, and use the mucilage instead of the gum and water ; a difference will be observed

between the proportion of gum and sugar for pink jubes, and that for pastiles and other crystalized jubes, this is on account of the crystalizing the one, and selling the others plain.

NOTE.—Another objection to making gums (by small makers) is that they are 8 to 10 days in drying, consequently keeping the trays, &c., occupied for a much longer time than any other goods. The gum mucilage should be the same consistency as the white of an egg.

GLYCERINE JUBES.

There is as much difference in the component parts of these jubes as there is in patent pills. They are made by or for chemists, each having their own recipe; some contain a portion of glycerine, no doubt, while all the glycerine that is in others is put in the ink when the printer prints the labels. The writer knows this for a fact, having made many a parcel of so-called glycerine jubes from gum, sugar, and a very little drop of lemon, which were sold as best, and were liked better, and the general public thought they derived more benefit from them than they did from the common glycerine jubes. These may be made the same as clear pine jubes. Use a slight drop of lemon in lieu of pine apple, run them in starch moulds or on tins and cut square with machine or scissors. You may use glycerine with discretion, not too much, or you will spoil the glycerine jubes.

RASPBERRY NOYEAU.

Put in the pan some gum mucilage, stand it over a slow fire, add blanched almonds and raspberry jam to taste, let it simmer for fifteen minutes, pour it on the slab and mix with it sufficient powdered sugar to form a stiff paste, roll it out one inch thick, put wafer paper top and bottom, and cut it in bars with a sharp knife.

CRYSTALIZED COCOA NUT CHIPS (LOOSE).

Shave off the dark skin from a quantity of cocoa nuts, cut them up in slices with a spoke-shave or cocoa nut cutting machine. Boil a quantity of good white sugar to the degree smooth, then put in the cocoa nut

slices and allow it to boil for say ten minutes, keeping it stirred all the time; remove the pan from the fire, give it a good stir round and empty the contents into a coarse wire sieve which has been placed over a vessel to catch the syrup that will run off the chips. Immediately after drawing, turn the chips amongst a heap of crystal sugar, and mix them up, in an hour they will be ready to sift out. Boil a second quantity in the same manner, have ready some crystalized sugar coloured red (which may be done by pouring on a heap of crystalized sugar some liquid cochineal and mixing it all through); when the second quantity of chips has been prepared and drained as last, turn them in amongst this red sugar and mix them up directly; be careful the chips do not lie to drain too long, or they will be too dry to crystalize nicely.

N.B.—Cocoa nut chips should be exposed to the air, to keep them long tied down in boxes makes them sour; do not keep them in show glasses with covers on them.

CRYSTALIZED COCOA NUT CHIPS.

The above recipe is a more ready and convenient way in preparing cocoa nut chips, and does very well for retail purposes, or quick wholesale trade; however, the old method is the best where they have to stand in boxes for an indefinite period. Shave off the rind from a quantity of cocoa nuts, cut them up in slices with a spoke-shave or a machine for the purpose, and place them in a crystalizing tin, boil sufficient sugar to cover them to the degree of thread, pour it over them while hot, stand them aside for twelve hours, draw the sugar off, spread them on a tray in the drying-room for three or four days till dry, turning them over in the interval, replace them in the crystalizing tin, boil a quantity of sugar as before, but let it stand till nearly cold, cover the chips again with it, let it stand for another twelve hours, strain off the superfluous liquor, spread on a tray, and they will be ready for sale when dry.

CANDIED NUTS.

Take a quantity of nut kernels, such as filberts, walnuts, Brazil nuts, or almonds, as preferred. Boil sugar with some cream of tartar, as for drops, to a little under crack, say 300 by thermometer, take the pan off the fire and drop in the nuts, a few at a time, and lift them out with a long fork, lay them on tins or a cold iron pouring plate till set.

CHOCOLATE MAKING.

In placing before the reader the following recipes and instructions for preparing chocolate and chocolate creams of various kinds, I have to acknowledge that I am indebted to the kindness of a personal friend of great experience in this line for whatever merit they may possess ; at the same time I have to offer him my apologies for the manner in which I have condensed his very carefully-compiled manuscript. His minute and elaborate description of the process and machinery which is employed in preparing the cocoa nibs for chocolate making was not in accordance with my idea of a hand-book of this description. My object all through this work being to teach the novice and assist those who have but imperfectly learned the business, or having learned one or two branches want a knowledge of the others, how far I may have succeeded in doing this I must leave those who use the book to judge ; it is quite possible to say a great deal, and to say nothing to the point. Long and intricate processes are generally confusing to the learner, and are passed over as being too difficult for him, at the same time the difficulty may have been created simply by the manner in which the instructions are written. I hope I shall not be found guilty of this, for these reasons I have taken the responsibility of altering the chocolate recipes to their present shape. Where chocolate and cocoas are manufactured on an extensive scale and form the chief if not the only production of a particular firm, labour-saving machinery has from time to time been invented and introduced into the several departments with so much success, that the old-fashioned method is entirely superseded. Formerly the cocoa nibs were prepared for chocolate making by pounding them in a heated mortar with a heavy iron pestle, afterwards ground smooth on heated granite slabs with a roller of the same material. This process was slow, dirty, and tedious. The employment of powerful and expensive mechanical contrivances now produce a much better chocolate paste at less than one-fith the cost for manual labour. This paste may be bought pure from most of the large cocoa houses, and is admirably adapted for confectionery, it will answer the purpose for any of the following recipes. By adopting this course it will be more convenient for the learner, and save an endless amount of unprofitable labour, besides, it would require experience in selecting cocoa nuts suitable, and even if the learner could select sound, fresh nuts, there would be few country towns where he would have the opportunity of doing so.

CREAM FOR CHOCOLATE CREAMS OR BARS.

Boil 10lbs. of best loaf or crystal sugar with 2½lbs. of glucose and two-and-a-half quarts of water ; when it comes to the boil see that all the sugar is dissolved, if not, take it off and crush any lump against the side of the pan with the spatula, give it a good stir, and replace it on the fire, putting a cover over the pan for five or six minutes, remove the cover and put the thermometer into the pan, allow it to remain the immersed in the boiling sugar until the quicksilver indicates 245 degrees, if in winter 242 degrees will be high enough, then pour the boiling immediately on an iron pouring plate, then with a long pallet knife or flat stick rub this syrup against the pouring plate until it changes from a clear transparent syrup to a snow white creamy substance. When it is creamed, you may knead it with the hands, see that there are no lumps left and the mass is of uniform softness. This cream is then ready for use for the various purposes, and may be kept in covered stone jars if not required for immediate use.

N.B.—Should the reader have no thermometer, boil the sugar to a soft ball (see degrees of sugar boiling ;) two large teaspoonsfuls of cream of tartar may be used in place of glucose, although the latter is best.

CHOCOLATE CREAM BUNS AND CAKES.

These are very popular in some towns on the south and south-east coasts of England ; they are made from the cream as above, moulded into shape to imitate buns, rolls, &c. ; afterwards coated with chocolate and glazed. Having the cream already made as directed, simply knead it into the shape you require, or press it into a tin shape; flavour and colour according to fancy. When the shape has been moulded, stand the cream in a warm place to harden a little on the outside. Put some cocoa paste or malted chocolate in a vessel ; stand over a gas stove, or set the vessel containing the chocolate in boiling water, until the chocolate is dissolved ; but do not put any water into the chocolate, and be careful none gets in by accident. When the chocolate is all melted cover the buns smoothly with it, put it on with a knife or brush, stand the buns aside until dry, then glaze by putting on a solution of shellac and alcohol with a soft brush.

N.B.—The only sample of these goods the writer has seen was a small sample sent by a customer residing near Brighton; if they were made and introduced in other towns I have no doubt they would sell readily. The cream was flavoured with Vanilla and some red cream was coloured with cochineal and flavoured with raspberry.

CHOCOLATE CREAM BARS (PLAIN).

These bars are made differently by different makers; some put a coating of chocolate top and bottom, about a quarter of an inch thick, while others simply put the chocolate on with a brush as thin as a coat of paint; to make the former have a tin with sides an inch and-a-half high; grease some paper, and fit it neatly around the sides and bottom of the tin, take some sweetened chocolate paste, melt it as in the foregoing recipe, and pour it into the pan to the depth of a quarter of an inch; now take some of the cream already described and put it into the pan, melt it over a slow fire, stirring it all the time; pour it into the tin on the top of the chocolate, an inch thick; when this has set, melt and pour over it another coat of chocolate; when this lot is cold and quite set, it may be cut into bars with a sharp knife. To make the chocolate cream bars with the thin coating, prepare the tins with greased paper as above, melt the cream, and pour it in them when set; take out the cake of cream, melt some pure chocolate, lay it on both sides of the cream with a brush or spread it on with a knife; this latter is the simplest and easiest process, besides it has the advantage of being considerably cheaper, using only about one-third of the chocolate paste.

N.B.—The knife for cutting bars of cream should be of first-class quality, having a thin polished steel blade with a good edge; an old worn-out knife breaks the cream and makes it irregular.

COMBINATION CREAM BARS.

Take a tin, with sides a couple of inches deep, cover it neatly inside with greased paper. Melt some cream, flavour with a little Vanilla, and pour it in the tin half-an-inch deep, when set melt another lot of cream; colour it red and flavour raspberry, pour it on top of the white cream;

when set melt another portion of cream, colour yellow, flavour with a little essence of lemon, and pour it on top of the other two coats; when it gets cold take the cake out and spread melted chocolate paste on both sides. When the whole is dry cut it up into bars with a knife; these bars look very pretty and sell well.

N.B.—The object in lining the tins with greased paper is to insure the cake turning out unbroken.

CHOCOLATE CREAM BARS (MOULDED).

Moulds for chocolate are made either of tin or copper, and are of different devices, according to a fancy; they are made generally to a size, so that when full the bar may weigh so much each; as a ¼, ½, or 1lb. net. To make these cakes, first melt the chocolate paste and pour into the shapes about one eighth of an inch thick, or less; turn the moulds about so that the chocolate may coat them all over; when set fill up the moulds with melted cream, allow them to stand till cold and hard, when you may brush a little chocolate paste over the top of the cream, which shows; turn the cake out of the moulds, and if a nice gloss is required, put on a solution of shellac and alcohol with a soft brush.

SWEET CHOCOLATE.

Plain sweet chocolates are made in many shapes and qualities, which are known by different names, such as medallion, shilling chocolate, Vanilla chocolate, &c. To make these, a great deal of care and machinery is required, the sugar having to be worked into the chocolate by means of heavy crushing machines; and to make a good quality experience is required. These goods small confectioners had better buy, and confine their attention to the cream bars, &c. There is a wide field for ingenious men, by introducing new shapes in chocolate creams; and what does sell better than the plain bars at 2ozs. a penny, which shows a very reasonable profit. It will be clearly seen that buying the chocolate from the large houses, in making any kind of pure or simply sweetened chocolate, the small manufacturer is so handicapped by his larger brethren as to make it impossible for him to successfully compete with them on their own ground; however, it may be valuable to some and interesting to others to know how they make the different sorts

on a small scale, and for these reasons I give the following recipes, coupled with the above remarks.

SWEET CHOCOLATE FOR EATING, &c.

Pound, say 5lbs. of pure cocoa or chocolate paste in a heated mortar with a warm pestle, until it is reduced to an oily consistency, then add about one half or two-thirds its weight of finely powdered loaf sugar; pound so as to mix it thoroughly; when well mixed turn it out into a tin and keep it in a warm place; take half of this quantity and grind it on a warm slab with a heated roller until it is reduced into a smooth impalpable paste, which will melt in the mouth like butter; serve the other half in the same manner; when this is done take the whole quantity and place it on the stone again (this time the stone or slab must be only milk warm), work it up again and put it into the moulds, give it a shake, and the chocolate will become flat; when cold it will turn out easily. This chocolate may be sold in this form or flavoured with Vanilla; if wanted for making chocolate drops or coating chocolate creams, run it on a thick block in place of the moulds for convenience.

CHOCOLATE DROPS (PLAIN).

Warm some sweet chocolate, as above, add a little lard, which will make it more free, take a little in your hand and roll it into a little ball, the size of a small marble; place them on sheets of white paper, in rows about an inch apart; when the sheet is covered, take it by the corners and lift it up and down, letting it touch the slab each time, which will flatten the little balls into drop shapes; they should be about the size of a sixpence on the bottom; when cold they will slip off the paper without trouble.

CHOCOLATE DROPS (NONPARIEL).

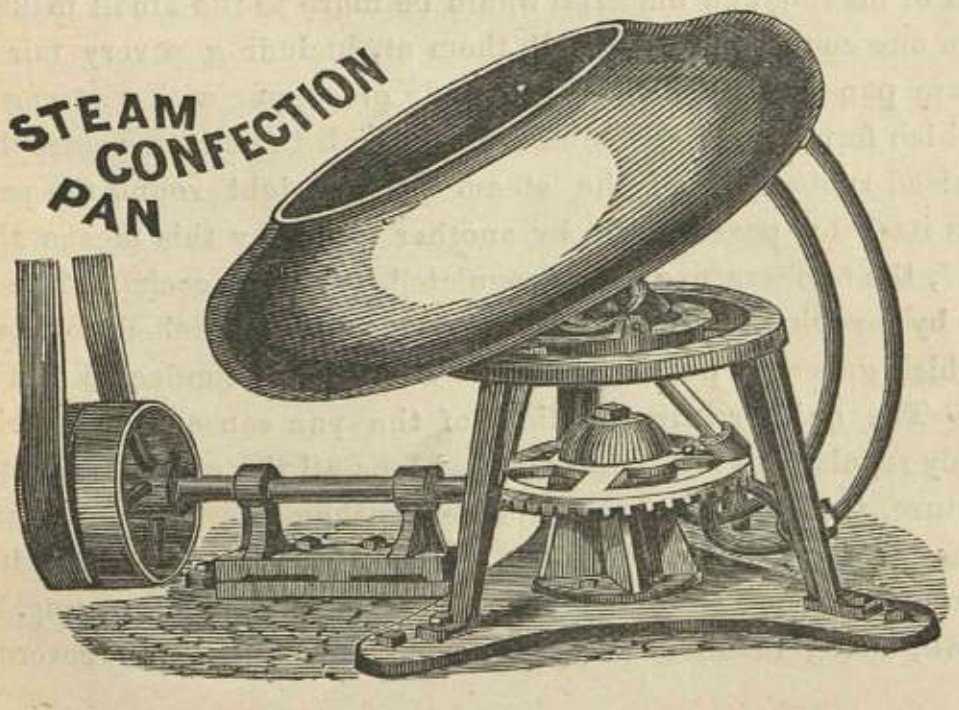
Proceed exactly as for plain drops; when the drops have been flattened cover the sheets of paper entirely over with white nonpariels, (hundreds and thousands); when the drops are dry shake off the surplus ones.

CHOCOLATE CREAMS.

To make these we must have some starch trays, described under fancies, also some plaster of Paris moulds, also previously described. Smooth off the trays and mould with small cream moulds, melt some cream very thin (but be careful never allow the cream to boil under any circumstances, or it will be hard), use your runner and fill all the moulds; in an hour or so they will be ready to be taken out of the starch; clean them off with a soft hand brush, then warm some sweet chocolate paste until it is melted; when ready drop the cream into the melted chocolate, two or three at a time, and lift them out with a long fork and place them on glazed paper or sheets of tin to dry; put them in a cool place to harden; they are sometimes glazed with a solution of shellac and spirits of wine put on with a camel's-hair brush.

QUALITY OF CHOCOLATE.

Genuine chocolate should eat with a cool sensation to the tongue, melt gently in the mouth like a piece of butter, leaving no roughness or astringency, and of a clear red brown colour; the surface should be smooth and shining, when broken it ought to be compact and close, not crumbly. Adulterated chocolate may be told by the gloss coming off when touched, crumbly when broken, and eating rough in the mouth.



THE COMFIT PAN.

The old method of making comfits was done by having a large copper pan suspended from the ceiling or beam by means of two chains attached to a bar with a hook and swivel in the centre ; it was erected to hang about as high as a man's breast, over a stove or charcoal fire ; the pan had to be kept at a moderate heat and at such a distance as to allow it to be swung backwards and forwards without touching the fire, by this action of the pan the goods were kept rolling about. The confectioner (pan man) had to keep the pan in constant motion by shaking or swinging it ; sugar was melted and put on with a ladle in small quantities, just sufficient to wet the handful of goods the pan contained ; the heat of the stove and the friction caused by the motion of the pan made the sugar grain and cover the goods all over the surface ; by putting on the syrup at intervals, as each coat must dry before another is put on, the comfits gradually become larger and larger, until they attained the required size. This was a very slow sing song process, compared to what can be done now with steam pans. Formerly a good workman would require to do his best to make ½cwt. of well finished comfits per day ; at the present time a skilled workman could superintend nearly a dozen steam pans, which would produce three or four tons per week. In the face of these facts it would be utterly useless for a maker on a small scale, with hand pans, to try to compete with those provided with the requisite machinery. The cost of making and material would be more to the small maker than the large one could afford to sell them at, including a very fair profit. The steam pan (see illustration) is made of copper with a strong inside lining which forms a steam chamber into which the steam passes through a vulcanised rubber tube ; the steam passes right round the pan and exhausts itself by passing out by another tube ; by this means the pan is heated, the temperature being regulated by steam cocks. The pan is worked by machinery, having a driving pulley attached to the main shaft, which generally passes along the ceiling, and connected to a steam engine. The quick regular motion of the pan causes greater friction, the steady regulated heat of the steam keeps all the contents at a proper temperature, therefore the goods made in them are more regular and have a better appearance and finish. The sugar is generally melted in steam pans for the purpose of supplying these pans with syrup. The syrup pan, being made of copper with a jacket or outer covering of

copper, to form a steam chamber, is fed and exhausted in the same manner as the comfit pan, with the exception that the syrup pan, being stationery, no rubber tubing is required ; the steam is therefore conveyed through iron pipes and regulated with a gun metal cock. The whole process is much quicker and cleaner than if done by fire heat, and is attended with less risk of fire ; because, should the syrup while boiling flow over the pan, it would not come in contact with any fire heat, and the worse damage would be the loss of the syrup.

The pan shown in the illustration is what is known as the oscillating pan, which is made in different sizes. There is another pan used for this purpose, and is called the revolver. Both these pans have their merits and defects ; some workmen prefer one kind, some another ; in my opinion, if there is any difference at all, they are both good alike. I know that it will be very few of my readers that the recipes in this branch will be of much service to ; consequently, I shall not go so far into particulars as I should otherwise have done, and the same may be said of comfits as I have had reason to remark in several places about other branches, that is, the different kinds are all manufactured by the same process, the only difference is in shape, colour, and finish.

NONPARIELS (Hundreds and Thousands).

These tiny little things generally lay the foundation for all the large rifle balls and other round marbles ; therefore to make a foundation for comfits I will commence with the nonpariels. First sift some powdered loaf sugar through a wire, sieve (40 holes to the inch), again sift what comes through in a lawn sieve, which will take all the very fine sugar dust from it ; put, say, four pounds of granulated sugar, left in the lawn sieve into the steam pan, set the pan in motion and turn on a little steam to heat them ; allow the sugar to remain in the pan for a little until it is warmed right through, then put on a little thin syrup, not much, just to wet them, and while the pan is in motion put your hands in and rub them about so as to keep the particles from sticking together while wet ; when they get quite dry and free give them a little more syrup and use your hands again to part them and rub them about. When they get dry again repeat the dose, still keeping your hands in motion ; when the syrup has been added, should you happen to get them to stick together or double, it would be almost impossible to part these little things, and

when they were being brought up large they would show very irregular in shape and out of all proportion in size ; to prevent this, see that each coat is dried before another is added, do not let the syrup be too thick, nor put on too much at a time, rub them well with the hands until they are the required size ; if they are wanted various colours when you have brought them up to the size you want, take out, say, three parts of them and stand them aside, melt some best loaf sugar to a thin syrup, adding a small pinch of blue. Give those in the pan one or two wettings with this best syrup, and gradually turn the steam off the pan until it revolves quite cold, adding a small portion of this syrup at intervals. When the pan has run cold for some little time do not put on any more syrup ; when they are quite dry stop the pan, take them out, they having been finished white, put in another portion of the nonpariels, start the pan, turn on the steam, and when the goods are warm colour part of the syrup yellow with saffron, and put on a few coatings at intervals, then turn the steam off and finish with another coat or so of this yellow syrup, when they are dry they will be a nice yellow, take them out of the pan and put them with the white ones already finished; put in another lot of the unfinished nonpariels and colour some syrup red and proceed in exactly the same way till finished, then if you want any more colours you must part the lot according to the number of colours you require, and finish them in the same way as the yellow.

RIFLE BALLS.

These are now generally raised from the nonpariel, but sometimes from the coriander seed, which is the quickest and simplest process ; put, say, 2lbs. of these seeds into a comfit pan, pour over them a small quantity of thin liquid gum and a handful of flour, mix them well with your hands until nice and free. Start your pan and put on a little steam to heat it with, in your syrup pan close by have ready boiled a thin syrup, add this at intervals to the seeds while in motion in the pan, allow one coating to dry before putting on another. By keeping continually supplying the goods in this way the action of the pan will complete the process. Of course all rifle balls are made to a size, therefore to tell when they are done a few may be taken out occasionally and weighed ; when the proper size has been attained the steam ought to be shut off and the pan allowed to run cold, use then only syrup made from the finest sugar for the sake of colour. When several different

colours are wanted the goods must be parted in so many different lots, one lot put in at a time for each colour, bring the syrup to the shade wanted and pour it over the goods while in motion, only a very little at a time, till finished off which must be in a cold pan, or they will look very rough. The sizes as a rule are made to weigh 64, 32, 16, 8, 4 and 2 to an ounce.

GREEN PEAS, RED CURRANTS, &c.

Green peas, red currants, coral beads, and several other small round comforts are now in the market. The process is exactly the same as for rifle balls. When sufficient syrup has been added to the nonpariels to bring them to the size of a real pea. Colour some best syrup with a vegetable colour and shade it to represent nature as near as possible and coat the comfits with it until they become green all over, turn the steam off the pan and finish carefully in the cold pan. For red currants and coral beads, of course you would colour the finishing syrup red.

N.B.—In making rifle balls, &c., they must be taken out of the pan, placed upon trays, and put in the drying-room to harden, once or twice, according to size, during the operation.

ANNISEED BALLS

Are made precisely the same as other rifle balls; common sugar is used for syruping, and the syrup is flavoured with a little of the oil of anniseed; they vary in colour with different makers, but are generally of a redish brown.

SUGARED ALMONDS.

Put about 18lbs. or 20lbs. into an ordinary size steam comfit pan (having previously cleaned and picked them), start the pan and turn on the steam till they get warm, then give them a wetting of liquid gum Arabic, rub them about with the hand until they are all wet, then throw a scoopful of flour in amongst them, keep them moving until they are dry; when dry they must be taken out of the pan, spread on trays, and

put in the drying-room for at least twelve hours, after which put them again into the pan, work up with syrup to the required size ; the finishing process is the same as for rifle balls. Best Jordan almonds are generally made all white, Valencia and common almonds pink and white ; the object in finishing with a cold pan is to get them smooth.

CARRAWAY COMFITS.

Sift about 5lbs. of Mogadore carraways free from dust, put them in the pan and keep moving until they are warm, then commence syruping, pass the hand frequently through them to see that they are free ; when they have come to the size required, spread them on trays in the drying-room till dry, when they must be put again in the pan and finished off with best loaf sugar ; pink and white.

CINNAMON COMFITS.

Take 4lbs. of cassia, otherwise *cassia lignea*, which is a cheap and inferior kind of cinnamon. Soak it in water for a few hours to soften, then cut it up with scissors into pieces about one inch long and very narrow (machines may be had for this purpose), put it in the drying-room until dry, then put it in the comfit pan ; when warm, commence syruping as for other goods, when, after a few coatings, the syrup is put on through a purling pot, which is suspended over the centre of the pan, and is shaped like a funnel, having a small hole at the bottom in the centre. An iron rod with a point to fit the hole is fixed in the centre of this pot, this rod is moveable by means of a screw, and can be worked at pleasure so as to regulate the stream of syrup which runs through ; fill this purling pot with boiling hot syrup of best quality and loose the iron rod by unscrewing it a little so that a small stream is allowed to run on the goods in the pan. While this operation is going on, the pan ought to have a slow motion and a good heat, so that the stream of sugar which is continually dropping on them may dry instantly, which gives them that white, rough appearance.

CORIANDER COMFITS.

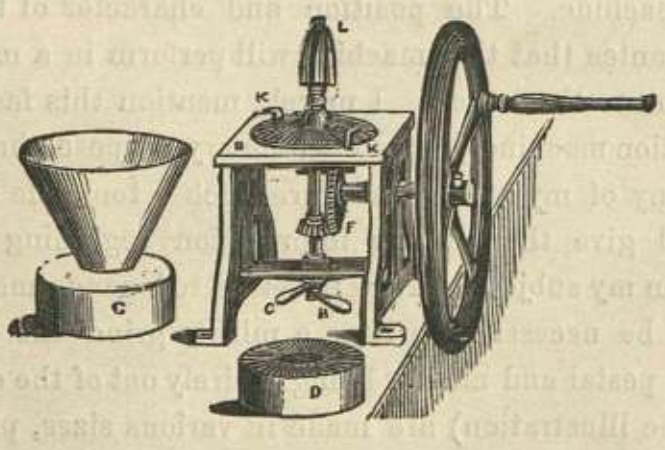
Put 4lbs. of sifted corianders into the pan and work them up to a size as you would rifle balls, then hang up the purling pot and proceed as for cinnamon comfits.

COMFITS WITH BOILED CENTRES.

A great variety of pan goods are now made from boiled centres, which considerably cheapens if it does not improve. The boilings intended for comfit centres or bottoms must be boiled up high, and care must be taken in reducing them that no more cream of tartar is used than is necessary to cut the grain of the sugar, otherwise the comfits made from them will become damp and soft. They are coated and finished in the same manner as seeds.

TO GLAZE COMFITS OR PAN GOODS.

This is a recent invention, and goods which undergo this process, through the hands of a good workman, look exceedingly pretty; put the goods intended for glazing (which must have been previously finished) into a clean pan, rub the sides of it over with the best white wax, warm it a little, shut off the steam, let it revolve a few minutes.



LOZENGES.

The writer feels quite unequal to the task of making lozenge makers of his readers; the process is simple enough, but it requires practice, and a good deal of it too, to mix and cut out a sheet of lozenge paste as

it should be. However plain I may put my directions, I cannot infuse into the brain and muscle that dexterity and acuteness which practice alone will impart. Young beginners when trying to make lozenges will generally find that what they intended for a nice white peppermint lozenge will turn out, when dry, to have a sort of greyish brown tint; this is caused simply through the sugar being handled and *coddled* about too much during the mixing; however, I will do the best I can to make myself understood, thereby rendering the art of lozenge making plain. Should a young beginner want to practice on these goods, I would recommend him to start with cough lozenges, which will not show up his imperfections as far as colour is concerned, and it will be his own fault if the ingredients are not thoroughly mixed in. In this branch as well as comfit making, recent machinery has rendered lozenge making by hand, as far as the common sorts are concerned, a dead letter. Twenty years ago lozenges were mixed and cut by journeymen confectioners, a little latter, women were employed for cutting, especially in Scotland, and within the last few years machinery has been introduced which mixes, rolls, stamps, and cuts, all the manual labour that is required is simply a superintendent. Several of these machines, which are very expensive, are at work in large establishments, turning out many hundredweights per day. In a letter dated November 3rd, 1880, Messrs. Low and Duff, of Dundee, informs me they have just made a machine which cuts ordinary lozenges, gelatine lozenges, and jujubes all on the same machine. The position and character of the makers is a sufficient guarantee that this machine will perform in a manner that will give satisfaction to the buyer. I merely mention this fact here to show to what perfection machinery for confectionery purposes has been brought to. Should any of my readers require such a tool, the makers, I have no doubt, will give them every information regarding it. But I am wandering from my subject. Now to return to lozenge making on a small scale; it will be necessary to have a mill to grind the sugar with, the old method of pestal and mortar being entirely out of the question; these sugar mills (see illustration) are made in various sizes, price from £9 to £80, the smaller sizes being quite large enough for a decent trade. They are simple in their construction, easily taken to pieces, and are regulated by screws so that the sugar may be ground coarse or fine as required. There are several other purposes besides lozenge making for which ground sugar is required, such as sherbert, icing, dusting drops,

&c., making the mill a useful tool to both confectionery and pastry cooks. The larger sizes are fitted with fast and loose pulleys to go by steam power. It must be understood that the finer the sugar is ground the more opaque and smooth the lozenge will be when finished. If a rough or transparent lozenge is required, such as fruit lozenges, the sugar must be ground coarse, which is known in the trade as grip or wire sugar.

To manufacture lozenges even on a small scale great cleanliness must be observed ; the tools necessary would be two smooth marble slabs one to mix them on and another on which to roll and cut them out, size say 4ft. by 2ft. 3in., brass or hard wood rolling pin about 2ft. long, the brass ones are made with gauges to fit on the ends so that the paste may be made any required thickness all over the sheet. A large pallet knife, say 15 or 18in. in length, a soft hand brush, a box containing starch powder, lozenge cutters of various shapes, stamps and dyes will be also required for making stamped or motto lozenges. Of course lozenge trays will be required on which to dry them, say 3ft. by 2ft., made of good dry pine wood with edges 1in deep ; the thickness of the timber used in making them should be a full ½in. when planed.

A first-class lozenge paste is composed of the best ground sugar mixed with a good quality of gum mucilage to a proper consistency ; the gum used for making the mucilage is known as gum Arabic or tragacanth. Dissolve the gum in hot water in the proportion of 1lb. of gum to 2lbs. of water ; if the gum is broken up small, about twelve hours will be sufficient to reduce the whole to a liquid. Having dissolved the gum, it must be strained through a fine cloth to free it from all impurities ; before mixing lay the sugar in a heap on the marble slab, make a hole in the centre of it and pour the gum in, then with the pallet knife gradually work in the sugar and proceed exactly the same as if you were mixing bread for the bake-house ; if for peppermints add a pinch of blue to bleach it white. When completed, if too dry and crumbly, add a little more gum, if it works soft and sticky add a little more powdered sugar. When mixed to a stiff paste with the flavours and colours added, commence to roll part of it out in a sheet to the desired thickness, lifting it up two or three times and dust a little starch powder under to keep it from sticking to the slab. It must also be turned over three or four times, which may be done by means of the roller and pallet knife, before cutting it, dust over the surface a

powder composed of half starch and half ground sugar, rub the sheet well with the ball of the hand to give it a smooth surface. In facing it up use the brush freely, handle it as little as possible. In commencing to cut out, take a straight line near the left edge, and however slowly continue to work in parallel lines; keep your cutter clean and empty it often, spread the lozenge flat on the trays which have been previously dusted with starch powder.

PEPPERMINT LOZENGES.

Take 14lbs. of powdered loaf sugar put it on the middle of the marble slab on which you intend to mix it; make a round hole in the middle of it; pour in a quart or less of gum mucilage, which has been strained free from specks, ½oz. of the oil of peppermint, and add a pinch of blue; work this up as directed to a stiff paste, roll out a small quantity of the paste on another marble slab, to the required thickness, rub the ball of the hand lightly over the sheet to bring up a smooth face, run over the surface with the hand brush, and cut out with a round cutter.

EXTRA STRONG PEPPERMINT LOZENGES.

These are made in the same manner; use double the quantity of the oil of peppermint. Stamp the words "extra strong" on each of them after they are cut and while on the tray soft.

N.B.—For a very best quality use Mitcham peppermint, these are sometimes stamped "extra super."

MUSK LOZENGES.

Bruise one drachm of best musk with 6ozs. of lime water, put it in a bath and let it stand in hot water twenty-four hours, mix with 28lbs. of paste, colour with carmine, according to the tint required.

MUSK LOZENGES (Another Recipe).

To the same quantity of paste add ½oz. of tartaric acid and one drachm of pure musk in powder, to improve the quality use a little more flavour; cut out with round cutter, these are cut in several sizes, the last are generally small and stamped.

ROSE LOZENGES.

To 14lbs. of paste work in half a drachm of virgin otto of roses and ¼oz. of acid tart, colour with carmine; for best rose lozenges use double the quantity of rose and acid.

GINGER LOZENGES.

To the same quantity of paste work in ½lb. of powdered Jamaica ginger and a ¼oz. of the essence of lemon.

CAYENNE LOZENGES.

Paste as before, with ½oz. of the best extract of cayenne and a few drops of rose, colour pink, cut out with round, oval, or octagon cutter.

COUGH LOZENGES.

Mix thoroughly with 28lbs. of paste, 3ozs. ipecacuanha, 5 drachms morphia, 1oz. of the oil of anniseed, 1oz. tartaric acid, with a sufficient quantity of the extract of liquorice to colour them; cut out with oval cutter and stamp.

TOLU LOZENGES.

To 14lbs. of paste mix 3ozs. of tolu, dissolved in spirits of wine, and 1oz. of acid tart.

CINNAMON LOZENGES.

To the same quantity of paste work in 3 drachms of cinnamon.

LAVENDER LOZENGES.

To 14lbs. of paste mix 6 drachms of Mitcham oil of lavender, colour pink, cut out with small fluted cutter.

ANNISEED LOZENGES.

To 14lbs. of paste use ½oz. of the oil of anniseed, colour it brown with the extract of liquorice, use oval cutter.

IPECACUANHA LOZENGES.

Work in 14lbs. of lozenge paste, 20 drachms of ipecacuanha, 1oz. of tartaric acid, and fifteen drops of the otto of roses.

CHALK LOZENGES.

Lozenge paste 6lbs., work in ¾lb. of prepared chalk powdered, and 4 drachms of powdered nutmeg.

LETTUCE LOZENGES.

To 7lbs. of paste work in 4ozs. of the extract of lettuce.

PAREGORIC LOZENGES.

To 14lbs. of paste, spirits of camphor 5 drachms, tincture of opium six drops, tolu 6 drachms, acid tart 1½ozs. Colour with carmine.

ANTI-ACID OR HEARTBURN LOZENGES.

Lozenge paste 10lbs., work in 1lb. of prepared chalk in powder and 4ozs. of magnesia, flavour with twenty drops of the oil of cinnamon.

NITRE LOZENGES.

Lozenge paste 14lbs., work in 8ozs. of powdered nitre, essence of lemon 2 drachms.

QUININE LOZENGES.

To 7lbs. of paste work in 1oz. of Howard's quinine, colour white, oval cutter, stamped.

ANTI-BILIOUS LOZENGES.

8lbs. of lozenge paste, work in 6 drachms of the finest Turkey rhubarb, 6ozs. magnesia, 1½ozs. of carbonate soda, and twenty drops of the oil of cinnamon.

LONG LIFE LOZENGES.

To 8lbs. of lozenge paste work in ½lb. of the best Turkey rhubarb pounded, and a ¼lb of the best powdered Jamaica ginger.

BLACK CURRANT LOZENGES.

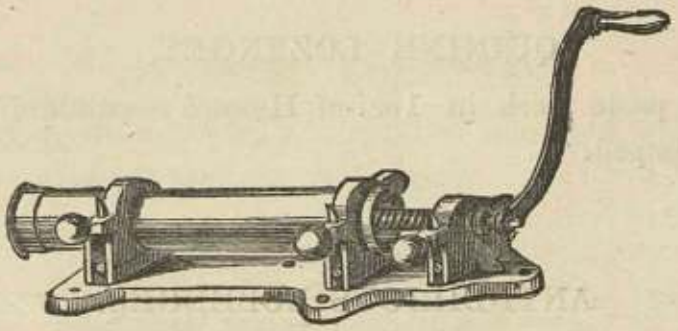
Mix 14lbs. of powdered sugar with 6lbs. of black currant paste (prepared from black currants by boiling them without sugar, and passing through a sieve), 1½lbs. Turkey gum, and 2ozs. tartaric acid; previous to cutting them out roll them on coarse powdered sugar.

NOTE.—For all the foregoing mixtures the finest Turkey gum ought to be used, the mucilage should be of a good substance and strained free from grit or specks, the ingredients thoroughly mixed; and medicated lozenges, where minute quantities of drugs are used, they should be mixed in with the dissolved gum.

COLTSFOOT ROCK.

Soak 3ozs. of gum dragon in water for twenty-four hours, press it through a sieve; one quart of gum mucilage, two pounds of the extract

of liquorice made into a solution, ¼oz. of the oil of anniseed, and 5 drachms of the essence of lemon; work sufficient ground sugar with this to form a very stiff paste, and pass through a machine. (See illustration).



This machine forms the coltsfoot into the shape, as it is sold. The paste being very stiff, keeps the same shape during the time it is in the drying-room.

BATH PIPE.

This is mixed in the same manner as coltsfoot rock, leaving out the essence of lemon; take off a small piece and roll it out with the hands until nearly the thickness required, then with a flat board finish rolling it; press very lightly on the board, and you will get the pipe an equal thickness the whole length with a smooth surface; the paste must be worked up as stiff as you can get it, or it will get out of shape by laying in one position after being finished.

ROSE, LEMON, AND PEPPERMINT PIPES.

These pipes are made from red, yellow, and white paste, flavoured as the name indicates; proceed exactly as for Bath pipe, with stiffened lozenge paste.

REGENT PIPE.

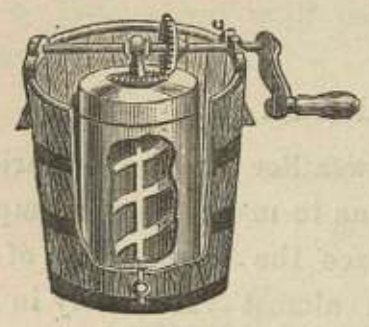
This pipe is striped with different coloured paste, the body of the pipe is usually white, and stripes are red, blue, and yellow; the stripes are

put on much the same as directed for boiled sugar rocks, and finished off by rolling with the flat stick.

ON MAKING ICE CREAM.

Of late years the demand during the hot weather for ices of various descriptions has increased to such an extent as to make them an important study for the modern confectioner. Since the introduction of ice creams into this country the trade has been almost exclusively in the hands of foreigners, and the money which found its way into their pockets would to a great extent have been spent in other sweetmeats, to the benefit of local shopkeepers; therefore it became necessary, for those who would hold their own against the stranger, to adopt the manufacture of ices. Many moderate fortunes have been acquired within the last twenty or thirty years by adventurers, simply through making and selling ices during the summer months. Competition is now greater in this line, and although fancy prices for common stuff cannot now be obtained, still there is sufficient margin to encourage those confectioners who have not yet sold them to do so. I think my readers will admit, at the very season when ices and cooling drinks are in demand, the sweet trade is very quiet. Most small confectioners' shops have a very hard pull to see a long summer over, in fact, during that season the market is flooded with sweet shops for disposal; this quiet season may be turned to a profitable account in many instances, by such parties turning their attention to supply the requirements of the public with things in season. There are a dozen different things in the shape of cooling beverages which can easily be made a source of profit by shopkeepers whose time is not fully occupied; to enumerate these, and give my best advice and instructions as to their manufacture, is the duty of your humble servant; I will, to the best of my ability, perform that duty with a hope that this little work may be the means of opening a field for those who are willing to turn their leisure hours to a useful and profitable account, thereby rendering a real service to the general public; who will no doubt show their appreciation by increasing the takings of the vendor to his satisfaction. A few words on the different methods of making ices, as well as the mixture from which ices are made, will not be here out of place. For those who have a good demand

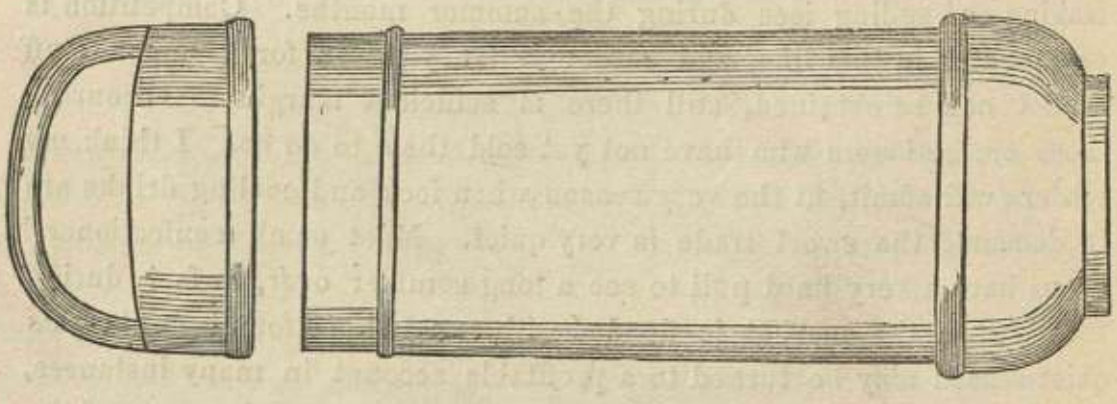
and have little patience I should recommend the use of the ice freezing machine.



SINGLE.

DOUBLE.

They may be had at very moderate prices, and will freeze a quantity in a few minutes. The quality of the cream frozen in these machines is not quite so fine as if done in a pewter freezer, and well worked up by hand; nevertheless, for a common or cheap trade, where quantity is preferable to quality, this machine would be just the thing.



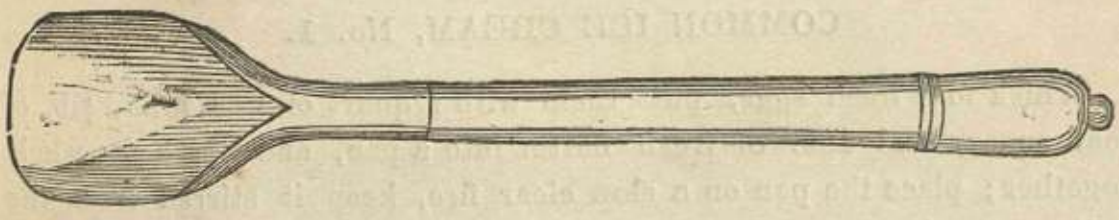
This illustration shows a correct drawing of a pewter freezing pot and cover, which is the proper material from which all freezing pots should be made, not only for durability, but is more wholesome to use and easier to clean, and looks bright and tempting in appearance. In the manufacture of best ices, which are composed partly of fruit, or where an acid has been used, it is imperative that pewter freezers should be used; as all fruits contain a portion of acid which would act upon zinc, destroying to a certain extent the delicate flavour, and turning the colour of the mixture. The mixture may take a little longer to freeze in pewter than it would in zinc, still, taking into consideration the quality of the ice cream which has been frozen in pewter, compared to that which has been prepared in zinc, the preference would be given to the former. Zinc ice freezers are certainly much cheaper, and, where

circumstances render it necessary to be economical, zinc will answer the purpose for making common or custard ice cream very well. For the convenience of my readers I have made arrangements with the best and cheapest houses for these specialities, to supply at their prices any of my customers who may entrust me with their orders. I will guarantee in every instance to supply those of the very best make only, and I will take it as a favour of those who wish to purchase any of these articles to compare my list, which will be found at the end of the book, with that of any maker, before sending me their order, which will convince them that I have studied their interest in all my arrangements.

In giving the recipes for making the custards and mixings to be frozen, although they are all first-class combinations and have been acted upon by the writer, nevertheless, they may be altered to suit the pocket or palate of the customers who frequent the different establishments in which they are to be made.

HOW TO MAKE ICE CREAM.

Before we start making it will be necessary to have a freezer, a tub, and a spatula. I have already had my say about freezers; as regards the tub, any strong wooden tub will answer the purpose, if it is large enough to admit of the freezer being placed inside with three or four inches to spare between the sides of the tub and the freezer, to admit of the pieces of ice and salt being packed between. The sides of the tub should be quite as high as the freezer; if you have your tub either much too large or too small there is considerable waste of ice, which is expensive, and soon makes a cheap tub very dear. The spatula (of which I give an illustration) is made of pewter, and has a strong wooden handle.



A stick with a sharp point is no use for this purpose, as it is not strong enough to scrape the frozen mixture from the sides of the freezer. I mention this as several country customers have bought freezers of me,

with the intention of making a spatula themselves, and spoiled their ice cream through the inability to keep the ice cream from the sides and bottom of the freezer during the process, much to their own loss and annoyance, as well as the disappointment of their customers. In selecting a freezer, it is always policy to have one considerably larger than for the quantity of ice required to be made at once; by this means a great amount of labour is saved, and the process is completed much faster; for example, by only half filling the freezer it allows a much greater space for the mixture coming in contact with the sides of the freezer, causing much greater agitation than if the pot was full. The process of freezing is as follows:—Pour the mixing which you intend to freeze into the freezer, place it in the tub, and fill up the space between the tub and freezer with ice broken in pieces, about one inch to an inch-and-a-half in diameter, and from two to three pounds of coarse salt, fill it up to within 2½in. of the top of the freezer, proceed to turn it round at first by the handle on the top of the cover until you see the mixture adhere to the sides of the freezer, then with the spatula scrape the frozen mixture from the sides and also from the bottom, and mix it in the body; turn it round again as rapidly as you can, scraping it from the sides and bottom every few minutes; in a short time the action of the pan will become freer, you may then take off the cover, and, by merely holding the spatula to the side of the pan, you may turn as fast as you like, the faster the better; as soon as the spatula will stand upright the process is finished. If you serve the ices out in glasses at intervals during the day, draw off part of the water from the tub, which the action of the salt upon the ice causes, by means of a tap fixed in the bottom; also during the day scrape the sides down, this will keep it from getting hard and lumpy.

COMMON ICE CREAM, No. 1.

Whisk four fresh eggs, put them with a quart of new milk, ½lb. of loaf sugar, and 1oz. of fresh butter into a pan, and whisk the whole together; place the pan on a slow clear fire, keep it stirred from the bottom till it comes to the boiling point, when it will get thick; be careful that it does not quite boil, or it will be spoiled; lift it off and strain through a fine hair sieve or muslin cloth, stand it aside until cold,

and freeze as directed ; flavour with a drop of the essence of Vanilla, slightly tinged with saffron makes it look rich ; it may be flavoured with the essence of raspberry and coloured with cochineal for raspberry cream. Of course it is understood that any quantity may be made in the above proportions.

N.B.—See that there is plenty of freezing salt with the ice and well mixed with it, or it will take much longer to freeze ; should the cream get soft during the day, add more fresh ice and salt, and give the freezer a few turns with the hand.

COMMON ICE CREAM, No. 2.

The ice cream made from this recipe is generally preferred, being smoother and having a better body, though only in appearance. To every quart of milk add two eggs, which have been whisked, and ½lb. of sugar ; put the whole on the fire, keep it stirred from the bottom until nearly boiling, lift it off and add ½oz. of fine gelatine, stir it until the gelatine dissolves, then strain through a fine sieve ; when cold freeze as directed, flavour with Vanilla.

COMMON ICE CREAM, No. 3.

One quart of milk, one pint of water, ½lb. of sugar ; proceed as for the last recipe ; when off the fire add ½oz. of gelatine, strain and freeze when cold.

N.B.—Creams made from the three recipes above may be flavoured either Vanilla, lemon, or raspberry, which are usually coloured accordingly, viz. : white, Vanilla ; yellow, lemon ; and red, raspberry.

CHEAP ICE CREAM.

Use 3 quarts of pure milk, 2lbs. of sugar, and a ¼lb. farina or corn starch, dissolve the farina in one part of the milk, mix the whole together and simmer on the fire (not boil) ; when cold, freeze.

AMERICAN ICE CREAM, No. 1.

(Recipes supplied by John Grant, New York.)

Mix with 3 quarts of best cream, ¾lb. of loaf sugar, flavour with the extract of Vanilla; no boiling required; freeze as directed. This mixture should increase in bulk to almost double the quantity while being frozen.

AMERICAN ICE CREAM, No. 2.

Mix with 3 quarts of fresh cream, 12ozs. of sugar, and ½lb. of glucose; dissolve the glucose with the cream, add the sugar and freeze. This makes a smooth cream and increases while being frozen.

AMERICAN ICE CREAM, No. 3.

Whisk the whites of five eggs, add the yolks of two, add this to 1lb. of sugar and 3 quarts of cream. This makes a capital ice cream, which of course is very nourishing, but is expensive, as the bulk does not increase much when being frozen.

Dessert Ices.

CREAM CUSTARD.

The variety of dessert ices is so numerous that to simply chronicle the names of them would fill a small volume. I will content myself by enumerating the more popular sorts, which I think will be sufficient for any purpose the reader may require. Wines, fruit pulps, extracts, essences, &c., may be altered, increased, or reduced in quantity to suit any particular palate, as the excellence of any particular ice cream entirely depends upon the taste or palate for whom it is prepared. This recipe will form a capital basis, and will only require the addition of one of the numerous flavours to convert it into a first-class cream custard ice of any particular kind; mix with one quart of fresh cream four or five whisked eggs (according to size), ½lb. of powdered loaf

sugar, put in a pan, place it on a moderate fire, and stir it well until it nearly boils, not quite, or it will curdle, take it off and strain through a fine hair sieve, when quite cold add your flavour, and freeze according to instructions already given; this cream is generally sold at 4d., 6d., and 1s. per glass.

RASPBERRY ICE CREAM.

Rub the raspberries through a fine hair sieve, add a pint of this pulp to a quart of the custard as above, pour it in the freezer, colour with a little cochineal and freeze.

STRAWBERRY ICE CREAM.

This cream is made in exactly the same way as the raspberry, scarlet strawberries are the best for the purpose, a small pinch of powdered citric acid, or the juice of a lemon, will improve either of them.

PINE APPLE ICE CREAM.

To every quart of custard intended for freezing prepare a small pine apple, by peeling and bruising, rub it through a sieve, and add this, with the juice of two lemons, to the custard and freeze; colour with a little saffron water.

COCOA NUT ICE CREAM.

Peel and grate a small cocoa nut for every quart of custard to be frozen; when the custard is just taken from the fire stir in the cocoa nut and strain, when cold freeze as directed.

PARISIAN COFFEE ICE CREAM.

Make a strong infusion of Mocho coffee and add half-a-pint to every quart of the cream to be frozen, with 8ozs. of powdered sugar.

N.B.—When infusions of any kind are added to the custard, it will be necessary to sweeten them with extra sugar, otherwise the sweetness of the cream custard would be much reduced.

TEA ICE CREAM.

Add to every quart of cream half-a-pint of an infusion of the finest black tea made very strong.

CHOCOLATE ICE CREAM.

Melt over a fire 4ozs. of the finest chocolate paste with a little hot water; when reduced to a consistency mix that quantity with every quart of cream intended to be frozen; when cold, freeze.

ALMOND ICE CREAM.

Blanch 4ozs. of Jordan and ½lb. of bitter almonds, grate them fine and add this to a quart of the cream custard prepared as instructed; strain through a fine sieve; when cold, freeze.

N.B.—Walnuts, Brazil nuts, and pistachios may be treated in the same manner. For instructions to blanch almonds see French almond rock.

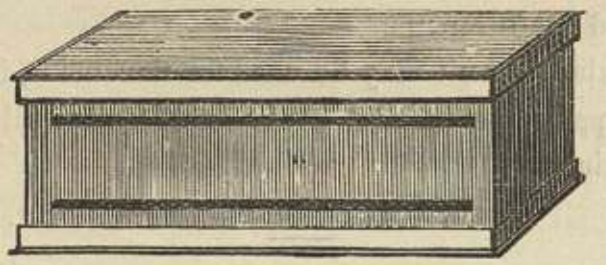
NOYEAU ICE CREAM.

To every quart of cream custard add one glass of noyeau and one glass of sherry just before freezing.

NEAPOLITAN ICE CREAM.

Mix with one pint of water the yolks of 14 eggs and two glasses of Maraschino, add sugar to taste, place the whole in a pan, put it on a slow fire and keep it whisked all the time. When almost to the boil

lift it off the fire and keep it well whisked until it foams, then pour it into a Neapolitan ice box (see illustration); place the box in a tub



surrounded with small pieces of ice, well mixed with salt, for four or five hours or till required. When wanted, dip the box into tepped water for a second, take off the cover and it will slip out. Part of this block of ice may be scooped out and filled with cream custard ice if preferred.

Water Ices.

LEMON WATER ICE (COMMON),

To a quart of water add a few drops of the essence of lemon, and a little tartaric acid, together with the whites of two eggs, and ¾lb. of powdered loaf sugar, whisk the whole together, strain it through a fine sieve, and freeze according to directions.

N.B.—In making the mixture for water ices the palate will be a good guide; make the preparation stronger than if required for drinking, as freezing considerably reduces the flavour.

LEMON WATER ICE (BEST).

This is made in precisely the same way, but instead of using the essence of lemon, squeeze the juice of eight or ten lemons, with the peel of three or four pared very thin, to every quart of water, the whites of three eggs and powderd sugar to taste, strain and freeze.

RASPBERRY WATER ICE.

Squeeze the raspberries through a fine sieve, to every quart of water add ½lb. or a little more of this pulp, a pinch of citric acid, the whites of two eggs, and sugar to palate.

STRAWBERRY WATER ICE.

This ice is made in exactly the same way as last, the strawberries should be in good condition.

NOTE.—Any kind of fruit may be used for flavouring ices, the process is the same; apples, pears, and other hard fruits will require boiling before being strained.

LEMON WATER ICE.

Take two lemons and rasp them on sugar, the juice of six lemons, the juice of one orange, one pint of clarified sugar, and half-a-pint of water, mix; strain through a hair sieve; freeze. One quart, or less lemon.

MELON WATER ICE.

Half-a-pound of ripe melon, pounded in a mortar, 2ozs. of orange flower water, the juice of two lemons, half-a-pint of water, and one pint of clarified sugar; strain; freeze.

CHERRY WATER ICE.

One pound of Kentish cherries, bruised in a mortar with the stones; add the juice of two lemons, half-a-pint of water, one pint of clarified sugar, one glass of noyeau, and a little colour; strain; freeze. One quart.

ICES FROM JAMS.

When fresh fruit is not to be obtained, jams may be used with advantage; the flavour, although not quite so good as from the fresh fruit, is to be preferred to essences. Dissolve the jams in boiling water, strain through a sieve, and use in the same proportion as the pulps.

TO CLARIFY SUGAR FOR ICES.

Take 3lbs. of sugar, two pints of water, half the white of an egg, well beaten up; boil ten minutes and skim. This is used in all water ices in place of sugar.

NESSELRODE OR ICE PUDDING.

Prepare a custard of one pint of cream, half a pint of milk, the yolks of six eggs, half a stick of Vanilla, 1oz. of sweet almonds, pounded, and ½lb. of sugar; put them in a stew-pan over a slow fire and stir until of proper consistence, being careful not to let it boil; when cold add a wine-glass of brandy; partially freeze, and add 2ozs. of raisins and ½lb. of preserved fruits cut small; mix well and mould. (Basket shape generally used.)

ICE MOULDS.

The above moulds for ices comprise only a small portion of the beautiful and original designs of Messrs. Biertumpfel & Son. They are made of an excellent quality of bright pewter, and form quite an ornament in themselves. I have seen several blocks of ice turned out of these moulds, which for natural appearance and general style were simply perfection. For prices and particulars see end of book.

TO MOULD ICES.

To make ices in moulds is a very simpe process, in fact, almost any of the foregoing recipes will answer the purpose; simply pour the mixture into the mould, put on the cover, and wrap the mould in paper,

and bury it in broken ice and salt, for at least two hours; let it remain in it until required, then take it out from the ice, wipe off the mould, dip it in lukewarm water, and lift it out again directly, take off the cover and turn it on a dish in the usual way. Sometimes the ices are decorated in various ways, according to the nature of the mould; a few leaves are generally used when it represents fruit, &c.

HOW TO CLARIFY SUGAR.

Whisk the white of an egg in a little water, put this in the pan with 7lbs. of broken loaf sugar and three pints of water, put the mixture on the fire, allow it to boil up, keeping it well stirred; lift it on the side as soon as it boils, and keep it simmering; as the scum comes up take it off with a skimmer; pass through a fine jelly bag. Raw sugars are not usually clarified, the low price of refined sugars renders this troublesome process unnecessary; however, the process is the same, with the addition of half-a-pound of powdered charcoal when the sugar is put on the fire. Raw sugar requires close watching, as the froth rises very fast when it begins to boil, and is apt to flow over; very dark sugar also requires passing through the jelly bags two or three times; in fact, the trouble and inconvenience of clarifying raw sugar makes it much cheaper to buy refines.

CORDIALS OR SYRUPS FOR SUMMER AND WINTER BEVERAGES.

In my eagerness to get the best information from the most experienced sources, I have been fortunate enough to gather together a mass of information on this subject, alone numbering over seven hundred recipes, with notes and explanations. I feel greatly indebted to the gentlemen who have put me in possession of all these valuable recipes, and I have no doubt my readers would have pitied their obedient servant in his endeavours to struggle through these voluminous papers, selecting the best and those most suitable for the pages of *The Confectioners' Hand Book*. I am not endowed with that amount of patience as to be able to read a chapter of matter to get a verse of information, and, being of

opinion that most business men have neither the time nor the inclination to "eat soup with a fork," I have condensed these recipes into a shape that will be easily understood, and at the same time answer every purpose that will be required by my readers in this branch. These syrups are now becoming very popular with all classes, and in all seasons; the demand for them is daily increasing, and the trade will consult their best interests in keeping an article that will give satisfaction. Syrups made from the following recipes may be diluted with either hot or cold water, according to the season of the year; in summer, if the vessels containing them are kept in ice, they make quite a nice summer beverage; while, diluted with hot water, in the winter they form an excellent invigorating drink. These cordials are prepared either from the fresh fruit or extracts and essences; of course the former makes the finest flavour, but they are made from essences, etc., in nineteen cases out of twenty. To make the cordials from fruit takes time and experience, and few but the professed cordial manufacturers ever attempt it. In giving the instructions for both methods, I may just add that, by following the recipes closely, those drinks made from the essences will at least be equal if not superior to any sold by large houses to the trade at eight shillings per gallon. I give here the more popular sorts by the same easy process that the writer manufactures them every day in his own establishment (from essences, &c.) Should the reader require greater variety, I have only to refer him to another part of the book: "Soda Water Fountains and Syphons," where he will find a valuable compilation written by a gentleman whose experience in this special branch is second to none. In buying the different flavouring oils for this purpose, select the soluble oils, as these mix thoroughly with the syrup.

RASPBERRY SYRUP (From the Fruit).

Take any quantity of the fully ripe fruit, free them from the stalks, place them in a tub, crush them with a wooden spatula; after they have been mashed let them remain for three or four hours, then strain the bruised berries through a strong flannel bag or strainer into a suitable vessel.

Dissolve ½oz. of acetic acid in 3ozs. of water, add this quantity to each gallon of the juice. Mix with every gallon of this juice 14lbs. of

broken loaf sugar, put it on a slow clear fire and stir until all the sugar has been dissolved (not boil); this may then be taken from the fire; when cold, bottle and cork for future use.

STRAWBERRY SYRUP (From the Fruit).

Proceed as for raspberry, but the fruit being more stubborn will require a good beating with the stick to mash them; when they have stood three or four hours strain them, press the juice out by squeezing the strainer between your two hands, add to the juice the same quantity of acetic acid, dissolve in each gallon 14lbs. of loaf sugar, simply warm the juice sufficient to dissolve the sugar, then take it from the fire; when cold, bottle and cork till required.

PINE APPLE SYRUP (From the Fruit).

Proceed as for raspberry and strawberry, but the hard nature of this fruit requires pounding with heavy chump of wood (not metal) in a tub with a strong bottom; when well mashed it will require great pressure to extract all the juice from this fruit; a cider press will answer the purpose; add the sugar in the same proportion as last, viz.: 14lbs. to the gallon of juice and a little acetic acid, put it on a slow fire, stir until the sugar dissolves, take it from the fire, and when cold bottle and tie down. If either of these syrups are too thick when cold, they may be brought to a proper consistency by the addition of water.

Artificial Cordials.

RASPBERRY SYRUP.

(Skuse's easy process).

Boil 3½lbs. of best loaf sugar, a pinch of cream of tartar, with a quart of water, for one minute, add nearly 1oz. of the concentrated essence of raspberry and ½oz. of tartaric acid; colour with liquid carmine.

GINGER SYRUP OR GINGERETTE.

Boil 3½lbs. of loaf sugar with a pinch of cream of tartar in one quart of water for one minute, then add 2ozs. of the soluble essence of ginger (see price list at the end of the book), and ½oz. tartaric acid.

RED CURRANT SYRUP.

Proceed exactly in the same manner as for raspberry, substituting the essence of red currant for that of raspberry.

NECTAR SYRUP, No. 1.

Put in the pan 3½lbs. of sugar and a pinch of cream of tartar, put it on the fire and stir until the sugar is dissolved, lift it off the fire and add equal parts of extract of Vanilla, rose, almond, and lemon, 1oz. in all, with ½oz. of tartaric acid.

NECTAR, No. 2.

This syrup may be made the same as raspberry syrup, using essence of nectar in place of essence of raspberry, and ½oz. of tartaric acid.

PINE APPLE SYRUP.

Boil 3½lbs. of sugar with one quart of water, a pinch of cream of tartar, one minute, add 1oz. concentrated essence of pine apple and ½oz. of tartaric acid ; colour with saffron.

N.B.—Each of these syrups when taken from the fire should be strained through a fine cloth ; they should also be skimmed while on the fire that no sediment may remain in the syrup.

ORANGE SYRUP.

Proceed as for pine apple, sugar 3½lbs., water one quart, soluble essence of orange 1oz., tartaric acid ½oz.

PEPPERMINT SYRUP.

Sugar 3½lbs., water one quart, soluble essence of peppermint 1½ozs., no acid. The instructions given for raspberry syrup will apply to this.

PEAR SYRUP.

Exactly as the others; flavour with the essence of pear and tartaric acid, tinge with cochineal.

CLOVE, SHRUB, SPRUCE, &c.

These syrups are all made in exactly the same way as far as the variety is concerned. I must refer the reader to the list of flavours at the end of the book, almost any of which may be used. It must be understood that the quantities given in this book may be altered to suit the palate, and as far as essences are concerned I must state that if concentrated fruit essences are not used I must not be held responsible for either quality or flavour. I have stated very explicitly in another part of my book the danger of using artificial mixtures sold as fruit essences, and if customers will run the risk they must themselves be responsible for the consequences.

GINGER BEER (FERMENTED).

The following are recipes for ginger beer, where a natural fermentation takes place, thus dispensing with the aid of the machine; it is generally bottled in stone bottles and sold at one penny each; when it is properly made it is preferred by many to the aerated ginger beer. Care and attention should be exercised in order to succeed. Many fail at this process through simple carelessness in weighing or measuring the ingredients, or rather in neither weighing nor measuring them, but working by guess, and laying the cause of their non-success to a fault contained in the instructions or the ingredients, or anything else; but the real cause—namely, themselves; therefore avoid guess work and follow the instructions, and I will guarantee no failure. Cleanliness must

be the first and most important rule laid down. Casks or tubs that are used must be thoroughly scoured out; if left any time before using, rinse. Sticks used for mixing must be cleaned each time before using. And the most important of all is the bottles. These, when empty or brought home by the carman, should as early as possible be laid in the washing tub, and water at the boiling point run on them until covered, and, when cold enough to handle, cleaned out with a brush; they may then be rinsed in cold water and put in such a position that they may drain. Crush 12ozs. of the best ginger and put it in a large tub, boil 8 gallons of water and pour it on the bruised ginger, add 5lbs. of the best white sugar, 1oz. of cream of tartar, and 1oz. of tartaric acid; stir the whole up with a stick till the sugar is dissolved, allow it to stand till milk warm, then add one gill of brewer's yeast; stir this in, let it stand for twelve hours, or until a scum forms on the top, then draw it off; clear by means of a tap about an inch from the bottom of the tub, whisk the white of an egg to a froth and mix it in with a teaspoonful of the essence of lemon; strain through a felt filtering bag or flannel cloth, bottle and tie down.

SUPERIOR GINGER BEER.

Proceed according to the last recipe, using five gallons of water, ¾oz. of cream of tartar, ½oz. tartaric acid, the white of two eggs, four lemons sliced thin, ½oz. of German yeast Ginger beer, as a rule, does not sell so well in winter, and is therefore kept in bottles for a considerable time before being sold out, in this case do not force it with eggs and yeast, but make according to this recipe, leaving out these two ingredients.

ANOTHER FORMULA FOR ONE GROSS.

Eight gallons boiling water, ½lb. best ginger, 5lbs. best white sugar, 2ozs. tartaric acid, ½oz. of cream of tartar, 1 teaspoonful essence of lemon, white of an egg beaten to a froth, add last 1 gill brewer's yeast, leave to work 24 hours before bottling.

IMPERIAL POP.

One-and-a-half gallons of boiling water, 1oz. best ginger, 1½lbs. best white sugar, and 1oz. lemon juice; when cool, strain and ferment with 1oz. of yeast, and bottle.

GINGER BEER (Steam power.)

Several large manufacturers of aerated waters are also large purveyors of this kind of ginger beer, and of course a supply of steam can be had for boiling purposes which render large quantities comparatively easy. The arrangement for getting the boiling water is by means of a steam coil; the boiling water from this is then allowed to run into a tub containing the ginger, which has been previously crushed; another tub is provided below this, and when the strength of the ginger has been thoroughly extracted and the liquid about luke-warm, it is passed into this second tub, where the further ingredients are added.

For 150 gallons of ginger beer proceed as follows:—Prepare 50 gallons of boiling water as explained above, crush from 12 to 15lbs. of the best ginger and put them into the first cask, let the 50 gallons of water run to this, and follow with two more charges of 50 gallons each of boiling water; leave this till luke-warm. In the second cask place from 120 to 130lbs. of best white sugar and 1½lbs. of tartaric acid, and let the ginger solution from the first cask run on it through a felt filtering bag; well stir with a wooden mixer. When quite cold and settled it can be bottled. This ginger beer will take about six weeks to be "up." In large establishments yeast is not used.

SPARKLING AERATED GINGER ALE.

(Without Machinery.)

Put 4 gallons of clear soft water into a clean cask or earthenware pan, with a wooden tap inserted about an inch from the bottom, mix with this water about 6oz. of the best carbonate of soda, allow this to stand twelve hours to settle, then draw it carefully off into another tub by means of the tap; do not disturb the sediment which settles to the bottom of the first tub. Mix with this quantity 2lbs. of loaf sugar,

stir until the sugar is dissolved, flavour with the extract of ginger ale, colour with burnt sugar or liquid colouring prepared for the purpose (see list), then fill glass lemonade bottles with the usual quantity, and to each bottle add two scruples of crystal tartaric acid, drive in the cork immediately and tie it down with wire in the usual way; in one hour, or as soon as the acid is dissolved, this ale is ready for use, and will open with a sharp report. The action of the acid upon the soda produces carbonic acid gas in the bottles, but the flavour is not equal to that made by machinery.

SPARKLING LEMONADE.

This may be made in exactly the same manner as the last flavour with the soluble essence of lemon; use no colouring. In drawing the water from the cask in which the soda has been mixed, draw it as clear as possible; the soda which has fallen to the bottom is of no use, and if stirred up will only muddle the liquid.

"O Peggy, Peggy, when thou go'st brew,
Consider well what you're about to do;
Be very wise—very sedately think
That what you're going to make is—drink;
Consider who must drink that drink, and then
What 'tis to have the praise of honest men;
The future ages shall of Peggy tell,
The Nymph who spiced the bev'rages so well."

HOREHOUND BEER (Fermented).

To make six gallons. Make an infusion of 1½ozs. of quassia with 12 sprigs of the herb horehound, boil with part of this liquid 24 cayenne pods for twenty minutes, then add six fluid ounces of lime juice and 1½ozs. of Spanish juice (dissolved in cold water); strain this mixture and put it with six gallons of cold water with 2lbs. of brown sugar, colour it with burnt sugar. Allow the whole to work four days. Now take two quarts of it and warm it rather warmer than new milk and mix with this eight tablespoonsful of good brewer's yeast and stand it in a warm place till in a state of brisk fermentation, then mix it with the

rest of the liquor, in a few hours it will be all in full work. Give it a stir twice a day for the first two days to promote fermentation; keep it from contact with cold air for the following two days and skim the top off as it gets yeasty. The beer must now be drawn off as clear as possible into a clean vessel by passing it through flannel or a filtering bag. Clean the tub well and return the liquid to it and add half a drachm of dissolved isinglass (pure), stir the whole well together and put a cloth over the tub and also a lid on it to exclude the air as much as possible, in thirty hours the beer may be bottled off. In summer this will be ripe and fit to drink in eight days.

A superior quality may be made by putting a small piece of sugar into each bottle just before corking.

Horehound beer made according to the above recipe is equal in every way to that of the best makers; besides being a pleasant and palatable beverage, it is a wholesome tonic; it is used largely and appreciated in the north of England, and where shopkeepers have convenience for making, the sale ought to be encouraged, as it is very profitable. It may be as well to state the herb horehound is very bitter and care must be exercised not to use too much of it. The flavour may be varied according to the discretion or to suit the palate of the neighbourhood.

SPRUCE BEER.

Ten gallons of water, 6lbs. of treacle or lump sugar (according to colour required), and 4ozs. of the essence of spruce; add yeast, and ferment as for ginger beer.

TREACLE BEER.

One pound of brown sugar, 1lb. treacle, 1oz. of bruised ginger, and ½oz. hops; boil for a few minutes with three quarts of water, strain, and add five quarts of cold water and a spoonful of yeast; let this work all night and bottle in the morning.

TREACLE BEER (Another Process).

Fourteen pounds of treacle, 1½lbs. hops, 36 gallons of water, and

1lb. of yeast; boil the hops with the water, add the treacle and strain; let it cool to milk heat and ferment with the yeast. In winter, ½oz. of cayenne with the hops is an improvement.

AERATED WATERS.

These drinks seem to rank in the forefront of all other beverages which have been introduced to the general public. This result is not surprising, when the admirable qualities of the waters are considered. They are pleasing to the palate, wholesome and refreshing as a beverage, healthy as a medicinal drink, agreeable to the wealthy, economical to the moderate family, suiting alike old, young, rich, and poor; and prescribed by the medical profession for the sickly as well as the healthy. With these recommendations it is not to be wondered at that as the warm weather sets in so the demand for aerated beverages in every country greatly exceeds the supply. Almost in any part of the country, where a soda water factory is started and good aerated drinks are offered for sale, a taste for them is acquired, and the demand follows the supply as a natural consequence. It is impossible to deny that drinks of this description are becoming more popular every day with all classes and in all climates. It has been found by experience, that wherever the population of the surrounding neighbourhood can support a brewery, however small, a mineral water machine will always pay well. In proof of this many brewers and publicans have discarded their original trade to follow the manufacture of aerated waters only, I consider this trade closely allied to the confectionery business, indeed, it should be looked upon as a necessary branch; and to those who can afford to erect a small machine, they will find to their benefit that it is the best paying branch in the concern. Were it not for the enormously high prices charged for these cheap beverages it would be impossible to foresee the immense trade that would be done in this branch. I consider it a scandalous imposition to charge the public from threepence to sixpence for a bottle of soda water, which really costs very little over one farthing to the manufacturer.

Within the last few years improvements in mineral water machinery have rendered the manufacture simple, safe, and easy. Formerly the erecting of a aerated water factory meant the outlay of several hundreds of pounds. Now a party may buy a complete machine, with the necessary

appendages to make a beginning, at from £30 to £35; there is no business offers a better return for outlay. The cost of working material is very trifling. An energetic man who is not afraid to work, with a very little capital at his command, may in one season not only clear the expense of his machinery, but add a very considerable amount to his profits; besides laying the foundation of a trade which is sure to turn out a profitable undertaking. One man can manage to work these small machines by himself, if his trade does not exceed forty or fifty dozen per day. No steam power is necessary, nor is there any extra assistance required, therefore there is comparatively no risk in the undertaking to begin with. The convenience required is very limited, as the operation may be carried on in a large room or a back yard. Of course I am writing only as regards the establishing of a factory. It is needless for me to mention that there are a host of machines made for the different processes which save a large amount of labour, but these refer to makers who want to turn out many hundred dozens per day. There are the syrup pumps, bottle washing appliances, corking machines, wiring stands, &c.; all these extras may be dispensed with by the beginner, and may be added one at a time as he finds his trade demands it.

I should be travelling out of my sphere were I to go into all the details of this important business, therefore I will just say sufficient to enable a party to make a beginning on a proper and solid foundation. To do this, the most important feature is the machinery. It is quite certain that anyone starting a new concern should produce an article up to the highest mark in quality, if he hopes to succeed in pushing his trade and establishing a successful business; this is impossible unless machines of the very best description are employed. A person commencing the business, being generally ignorant of the variety of apparatus sold under the name of soda water machinery, may by the purchase of inferior plant entirely ruin his prospect. A soda water machine, constructed on a wrong principle, may work and produce goods of a certain class, but a person unacquainted with the *proper* principle would, by purchasing one of these, place himself at a disadvantage to those who have studied the subject beforehand. The disappointment must indeed be mortifying when persons having expended nearly all they possessed, in the hope of establishing a lucrative trade, find themselves competing at a disadvantage with other manufacturers.

The process of making aerated drinks with a machine made on a

proper principle is so extremely simple that even people who were unable to read the directions were able to make the usual and fancy drinks after the recipes and directions had been carefully read over to them. In the advertising columns at the end of this book will be found the names of two firms which stand pre-eminent as makers of this class of machinery, Messrs. Mondollot's patent taking the gold medal at the Paris Exhibition 1878, and those of Messrs. Barnett and Foster's made the highest award at Sydney, 1879-80, besides several other medals. Should any of my readers desire to go into business, the author will be pleased to give them any further information regarding any machine for this purpose. I shall be pleased to execute the orders for any machines at the maker's prices, and my reader's may rely on the thorough personal inspection of each machine bought through me previous to being sent off. I shall be also pleased (if the customer desire it) to attend to the delivery of the machine at the customer's residence (if in the United Kingdom) and see it properly erected and put in working order, giving the purchaser every practical information without charge, except the railway fare to and from London.

It would be impossible here to give general instruction for the working of a soda water machine, as they differ so much in size and construction. However, a special book will be sent gratis to every purchaser of a machine which will contain full and clear instructions for the fixing, working, and management of each machine, together with valuable information to the aerated water manufacturer. It may not be out of place to give here the actual cost of one gross of soda water to the manufacturer.

	s.	d.
Sulphuric acid (4lbs.) - -	0	5
Whitening - - - -	0	1
Soda (10 grains to a bottle) -	0	1
Corks per gross - -	2	6
Tinned wire for bottling - -	0	2
Total -	3	3

Or about one farthing per bottle.

This is sold wholesale at prices varying from 1s. 4d. to 2s. 6d. per dozen, and again retail at from 3d. to 6d. per bottle. What an immense profit is shown here for retailers to manufacture for their own sale.

THE CONTINUOUS-ACTION SODA-WATER MACHINE.

(Specially designed for Chemists and Druggists, Hotel-keepers, Coffee Taverns, Refreshment Houses, Confectioners, &c.)

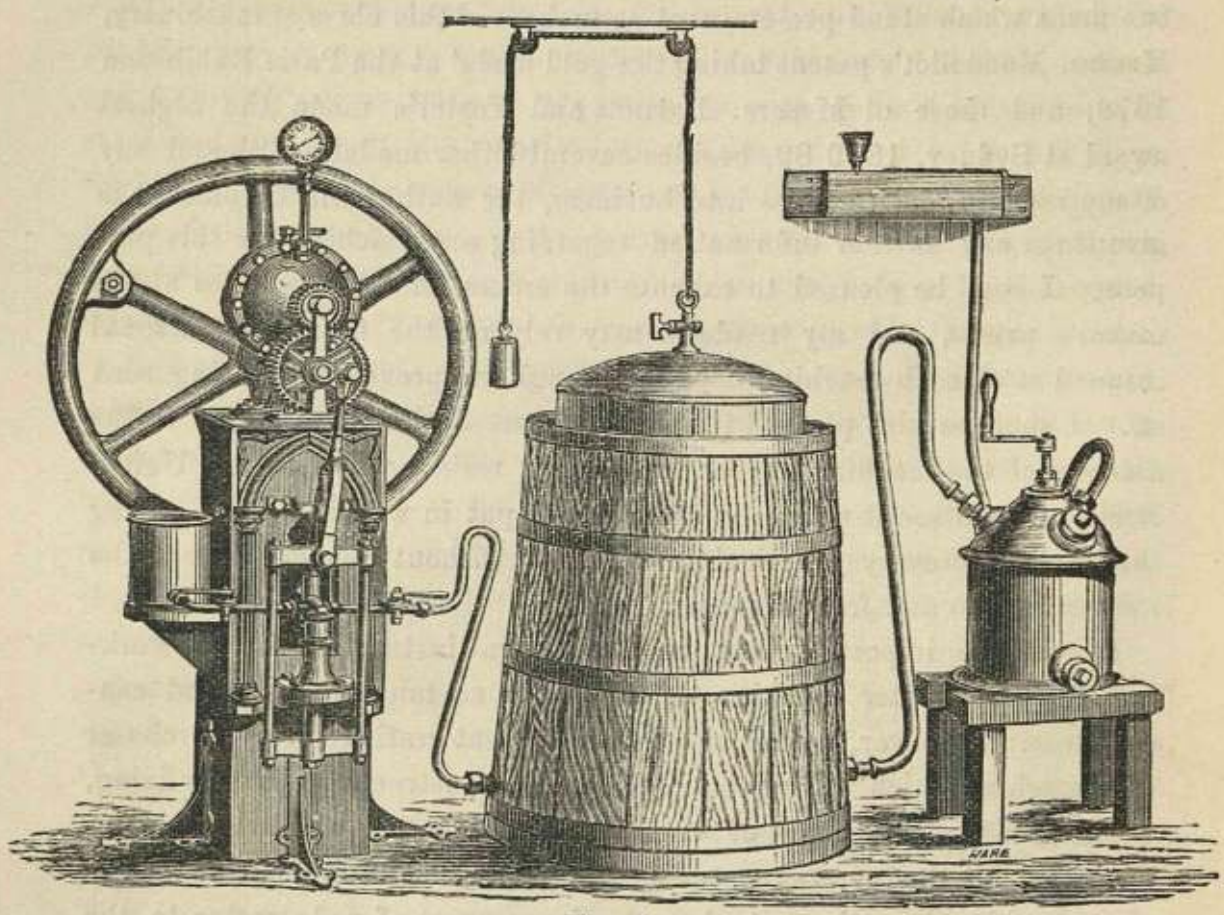


Fig. 1.

This small but effective machine has all the good fitting necessary to render it perfect. The condenser takes apart; the agitator has an outside support; it is fitted with dial pressure-indicator, safety-valve, &c., and is complete in itself, requiring no extra for stand or framing, as it is mounted on a cast iron stand, as shown. Price, complete, £30.

The machine is capable of producing about 40 dozen a day of highly charged aerated water. It comprises a strong gun-metal pump, with valve box at top, a strong copper globe, made to open, if required, and fitted with blow-off valve; the agitator, driven by toothed wheels; solution pan, &c. mounted on stand; strong oak tub, iron bound; copper bell with blow-off cock at top, pipes, and connections, forming gasometer; stout lead generator, with copper tinned agitator; gun-metal fittings and pipes; syphon box and pipe for supplying acid to

generator ; also a bottling cock for fixing in any convenient position ; and all necessary requisites, including spanners to fit every bolt and nut. The whole mounted complete on cast-iron frame.

This special design answers all purposes, and produces aerated water in quality equal to the largest. Its advantages are great to retail dealers, such as chemists, hotel proprietors, confectioners, and keepers of refreshment houses, as by having the machine on the premises, the spare labour of lads can be utilized in rendering an already profitable branch of their business still more so. The cost of production is almost nominal, and only a small invested capital in bottles required, these being filled repeated and expeditiously in proportion to the business done. Apart from these important advantages—which will be at once appreciated by those who have felt the inconvenience and annoyance of not being able to get bottled drinks at all in the season, thus losing a large source of profit—is the fact of being able to produce at any time and in a very few minutes, as the demand may arise. Any filling apparatus can be attached to this machine.

THE PRIZE-MEDAL CONTINUOUS-ACTION SODA WATER MACHINE.

The soda water machine as shown on following page (Fig 2) is the make of Messrs. Barnett and Foster, and is made in five different sizes as follows :—

No. 1 Machine makes 350 doz. Bottles of highly Aerated Waters in a day of 10 hours - - - - - £70

No. 2	,,	,,	250	,,	,,	,,	£65
No. 3	,,	,,	200	,,	,,	,,	£60
No. 4	,,	,,	150	,,	,,	,,	£55
No. 5	,,	,,	100	,,	,,	,,	£50

The machines differ only in size, the design being the same. There are a great many of these machines at work at present, not only in Great Britain, but throughout the world. Some of these machines, made forty years ago by the firm, are at work at the present time, having required no other repairs during that time than an occasional cup leather.

The three characteristic essentials of these machines are :—

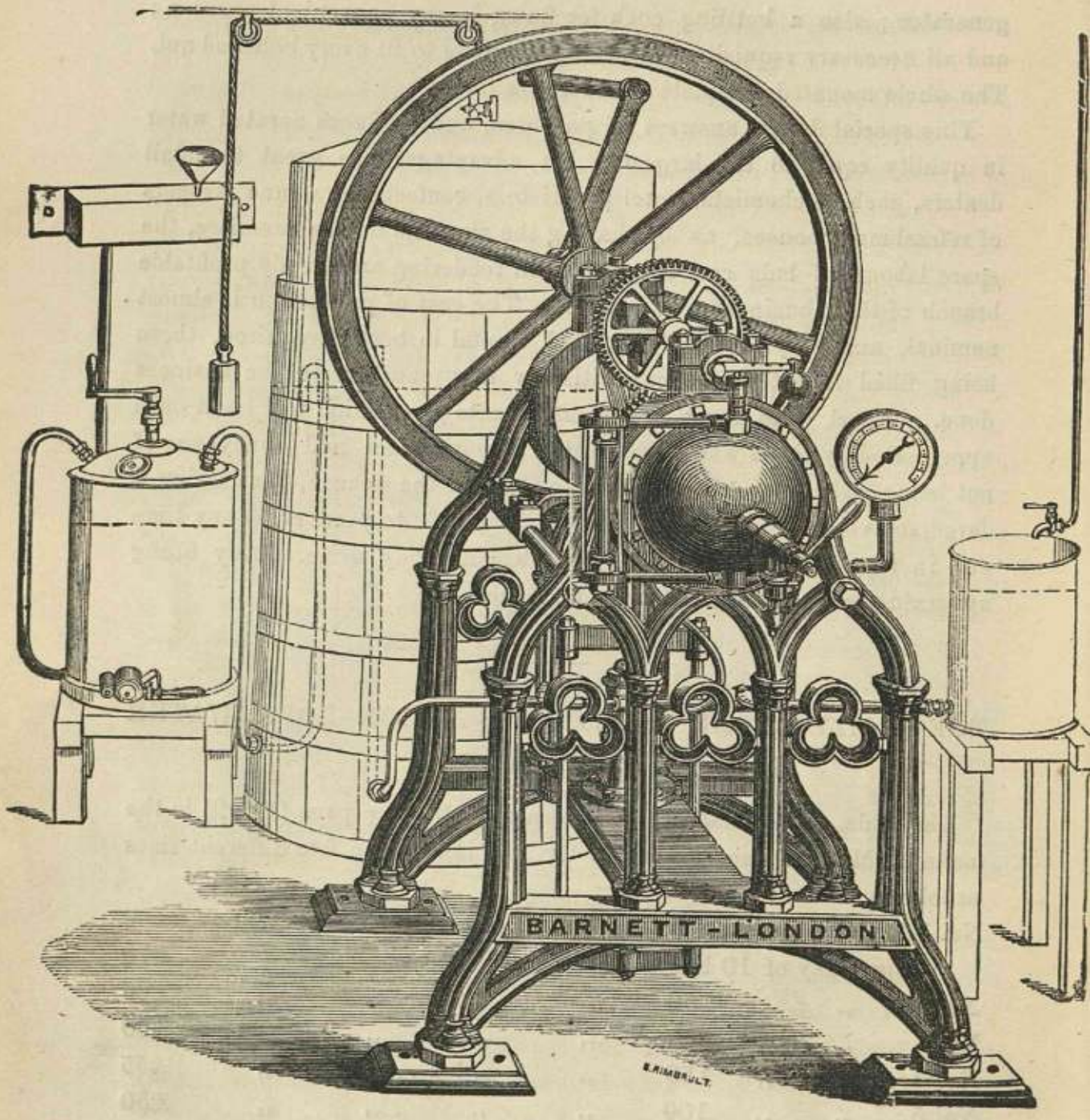


FIG. 2.

SHOWN AS READY FOR USE FOR HAND POWER.

Consisting of the Machine in frame, Gasometer, Generator, Solution Pan, Index-Cocks, Safety-Valve, and Pressure-Gauge on Condenser, Pipes, Spanners, and Fittings Complete.

The *generator* in which the carbonates are mixed with the acid producing carbonate acid gas. The *gasometer*, where the carbonic acid gas

is stored, and the *machine proper*, consisting of the pump and condenser, the former drawing gas on the one side and water on the other, and forcing into the condenser or globe, where both gas and water are incorporated together, ready for bottling, either by the "knee" process or by the various bottling machines.

I would very gladly here give the process for producing the aerated waters by these machines, but considering that they vary so much in size, and also that no two makers make machines which work exactly alike, I am afraid it would be needless, seeing that with every machine delivered by the makers or your humble servant, is accompanied with a special book, which contains in detail every information that can possibly be required; these books are not sold, but kept simply for private circulation to customers, gratis. It will therefore be sufficient for me to state that the process may be easily learned in a day or two by any person who may be inclined to enter the business.

I had occasion to visit the factory of Mr. H. Favarger a short time ago, and was not only pleased, but interested with the performance of this little machine. (See illustration, fig 3.) The quiet automatic action while doing duty is astonishing, when taken into consideration, that a soda water machine of this description and exceeding low price is capable of producing seventy-five dozen daily. Mr. Mondollot, who is not only an engineer but a mineral water manufacturer, has certainly brought all his experience into active operation when inventing the apparatus referred to. The gas is generated in this machine automatically by a self-acting arrangement, at the same rate at which it is drawn into and utilised in the condenser; the old-fashioned and cumbrous accessories are not required in this arrangement, and therefore the production of aerated waters by this machine is simplicity itself. No skilled labour is required to work this machine, and a boy would be able to produce quite as good a beverage as the professional soda water maker. I was invited by Mr. H. Favarger to taste the lemonade that had been made by this machine, and I found it to be of best quality: sharp, palatable, and sparkling. I may also state that I have seen a great number of letters from mineral water manufacturers who have been using these machines, every one of whom expresses their entire satisfaction with their purchases, several of them offering to give intending purchasers their personal testimony.

MONDOLLOT'S PATENT.

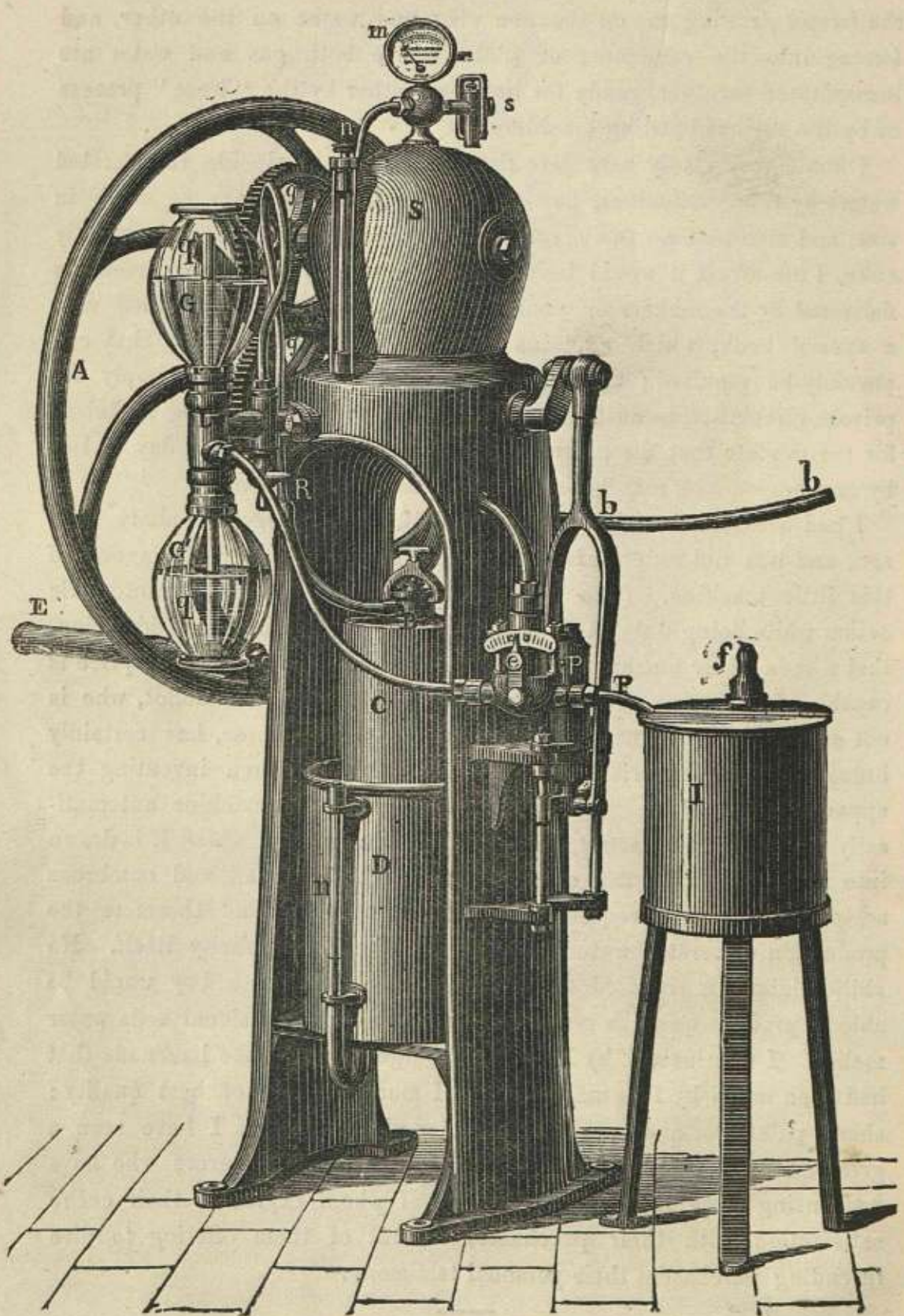


Fig. 3 (showing Machine No. 0 complete).

D is the outer and C the inner cylinder of the generator previously described. G G' are glass purifiers into which the gas passes from the generator. S is the condenser in which the water is impregnated with the carbonic acid gas. I is the water tank affording a constant supply of water for aeration. P is a pump for forcing the filtered water from the tank, and the gas from the purifiers, into the condenser. A is a fly-wheel, with handle E, for working the machine by hand. *g g'* are cog-wheels, the upper one of which is fixed to the spindle of an agitator in the condenser which, by its rapid motion, facilitates the complete saturation of the water with the gas. *n n'* are water gauges, the one indicating the height of water in the condenser, and the other that of the acid solution in the cylinder D. *m* is a pressure gauge for denoting the pressure of gas in the condenser. *e* is a distributing tap for regulating or varying the relative proportions of gas and water forced by the pump into the condenser. *s* is a safety valve attached to the condenser and so constructed as to be easily adjusted to any pressure required.

OUTLINE DESCRIPTION OF MACHINE No. 0.

Constructed for using bi-carbonate of soda and diluted sulphuric acid.

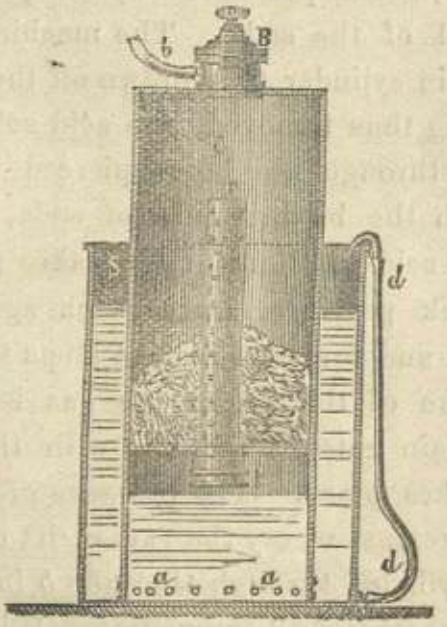


Fig. 4.—Section of the generator. No. 0.

This figure is a view (partly sectional) of the gas generator or producer. S is a cylindrical vessel open at the top, for containing diluted sulphuric

acid. Within this vessel is fixed a second cylinder C of smaller diameter but greater length. A is a partition dividing the interior of this cylinder into two compartments, the upper of which is for receiving the bi-carbonate of soda. T *t* is an open tube pierced with holes for nearly the whole of its length, and which is fixed in the centre of the partition A. B is a tubular opening for charging the cylinder C with the bi-carbonate. *b* is a portion of the tube connecting the apparatus with the condensing and pumping machine, and *d d* is a flexible tube for discharging the acid water.

DESCRIPTION OF THE MODE IN WHICH No. 0 MACHINE OPERATES.

A given weight of granulated bi-carbonate of soda is introduced into the cylinder C, through the feed tube *b*, which is then securely closed. The outer cylinder D is then filled nearly to the top with diluted sulphuric acid. The solution flows by its own gravity through the holes *a a* into the cylinder C, but is prevented by the pressure of air therein from rising to the level of the soda. The machine having been set in motion, the air or gas in cylinder C is drawn off through the pipe *b*, and the back pressure being thus removed, the acid solution rises up to the tube T, and passing through the holes pierced in its circumference comes in contact with the bi-carbonate of soda, upon which a rapid generation of carbonic acid gas immediately takes place. This restores for a moment the back pressure, forces back again the solution from contact with the soda, and for that instant stops the generation of gas. But as at each stroke of the pump the gas is withdrawn from the cylinder, the fluid again raises to contact with the soda and a further generation of gas takes place. The pressure of the gas is thus made to regulate with the greatest nicety the rate of its own production. The gas passes from the cylinder through the tube *b* into the purifiers G G' (fig. 2) where it is divested of all impurities. It is drawn thence by the action of the pump and forced into the condenser, together with the water to be aerated, which is drawn from the tank I. The combination of the two is effected by the high pressure maintained in the condenser,

assisted by the motion of the agitator. The carbonated water then passes through the tube *b b* to the bottling machine.

It will be noted that the production of gas is regulated automatically and at a uniform rate by the simple but effective means described. The process continues while the machine is in motion until the materials are exhausted. The rate of production being regulated with precision and limited to the exact quantity required, no dangerous accumulation of gas can possibly take place, and the degree of attention and skilled labour required for working the machine is reduced to a minimum.

This machine is the smallest of Mondollot make, but there are several sizes larger, regarding which information may be had on application.

ARRANGEMENTS FOR DISPENSING ICED FRUIT DRINKS AND ICD CREAM DRINKS FROM THE COUNTER.

There are three methods of retailing aerated water, viz., from the Bottle, the Syphon, and the Counter Fountain. The machinery for the manufacture of the waters we have already described, the uncorking of bottles and dispensing from syphons is a process so easy and well-known that I have no reason to explain it, the only difficulty is filling them; and this is very easily done by means of the bottle-filling and syphon-filling stand, or one double bottling stand will answer the purpose of filling either.

PATENT SINGLE BOTTLING STAND.

This stand (see Fig. 5) is for filling bottles only. An important advantage is gained by this arrangement, as it renders the operation of corking no longer dependant upon expert and skilful manipulation, but enables even the most unpractised hand to perform the work with facility and precision.

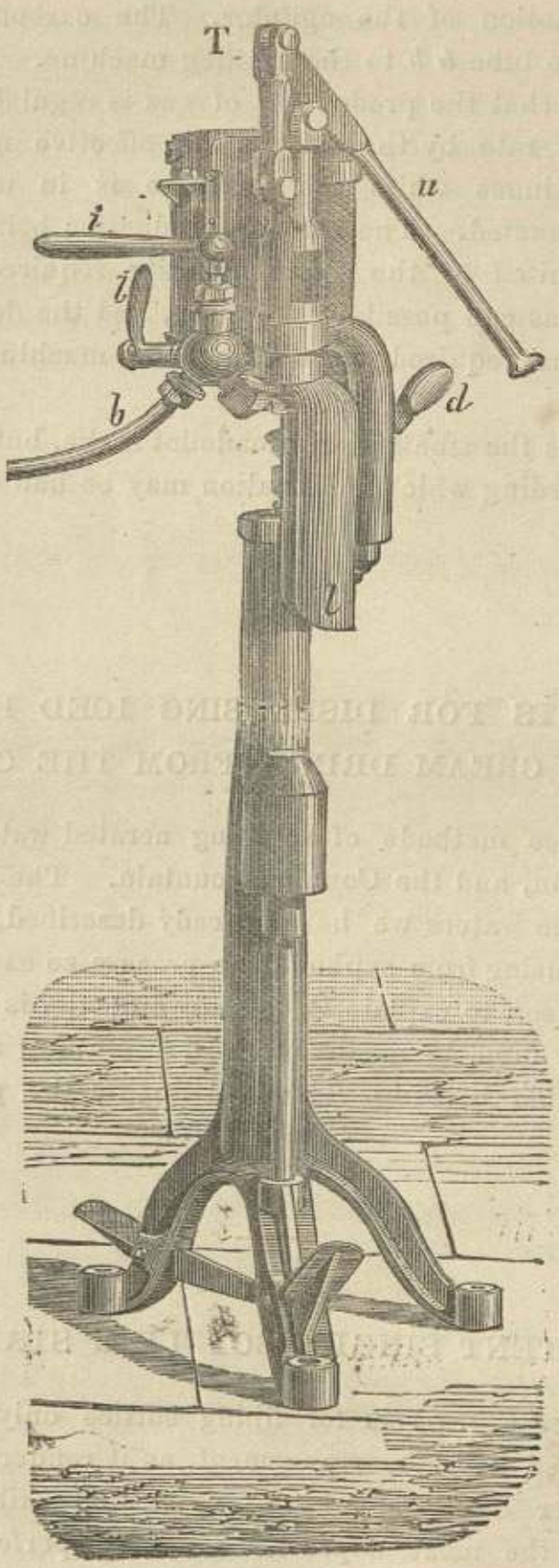
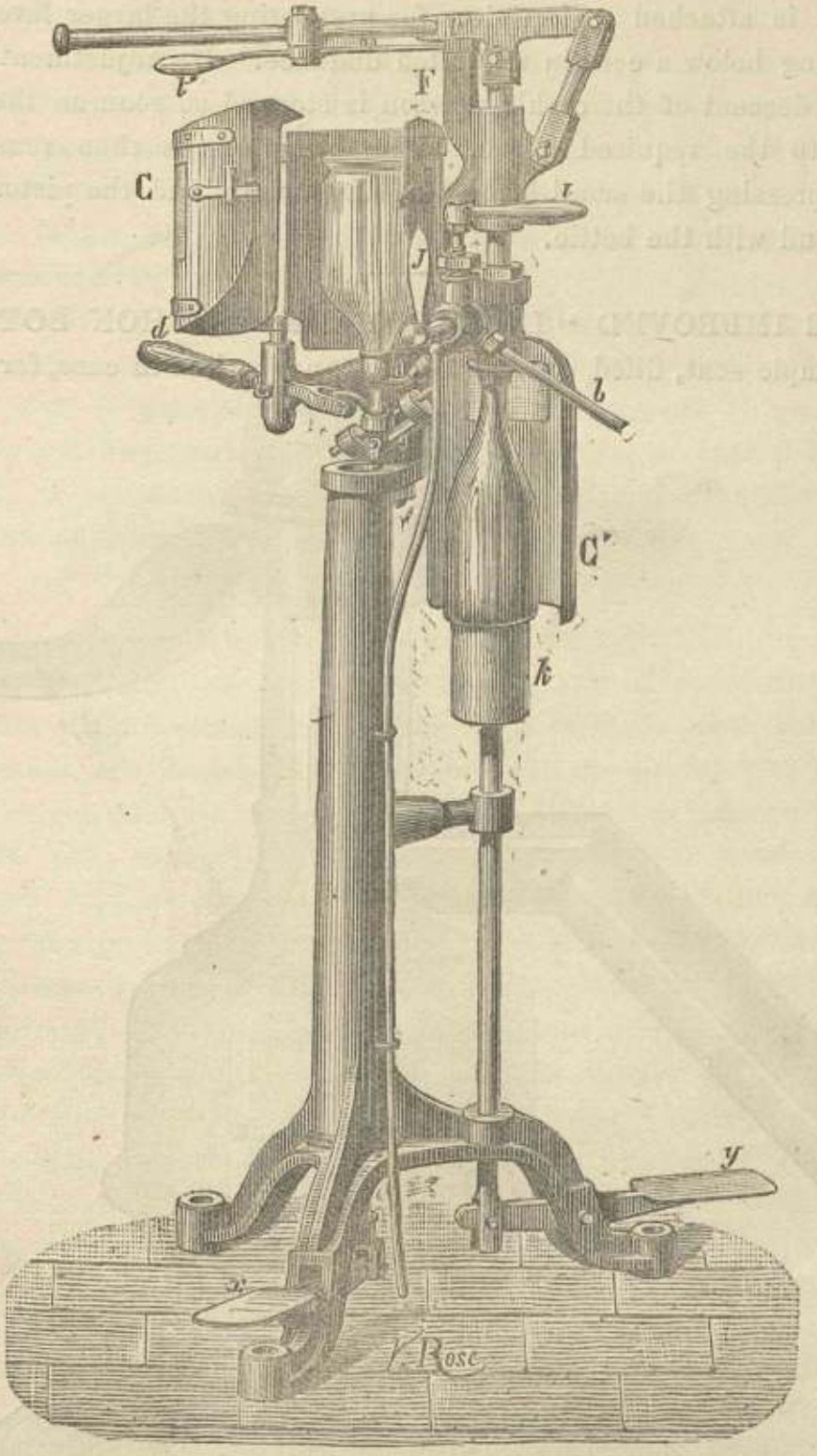


Fig. 5.
Price, £6 10s. complete.

IMPROVED PATENT DOUBLE BOTTLING STAND.

Fig. 6.

Price, £10 10s. complete.



This stand is for filling either syphons or plain bottles. It is of cast-iron, the fittings are of brass; the machine is fitted with sniffing valves

for letting out the air contained in the syphon or bottle to be filled. It has a simple but effective arrrangement for regulating with exactitude the depth to which the cork is driven into the bottle. *t'* is a small lever to which is attached a stop-piece for preventing the larger lever *t* from descending below a certain regulated distance. Its adjustment is such that the descent of the corking piston is stopped so soon as the cork is driven to the required depth. The stop-piece is then removed by merely pressing the small lever with the thumb, and the piston is free to descend with the bottle.

THE IMPROVED "LONDON-MADE" SYPHON BOTTLE.

(Sample sent, filled with soda-water and packed in case, for 8s.)

The drawing (see Fig. 7) shows a full size view of the top of the celebrated "London-made" Syphon, quart size, they are in all cases subjected, when finished to a pressure of about 300lbs.; so that implicit dependence can be placed upon their strength.

The demand for syphon drinks is yearly increasing, they being so admirably adaped for use by invalids and others requiring occasional small draughts, the water preserving its freshness to the last. They are also largely used in refreshment houses, the aerated water being generally taken with syrup, spirits, claret, &c., forming a palatable, frothy, and refreshing beverage.

The sale of syphon drinks should be encouraged as much as possible by soda-water makers; they are more profitable than bottle drinks,—a higher price is generally obtained,—and the expense of corks, wire, string, &c., is dispensed with. The original outlay of capital is sooner returned, as purchasers invariably pay a deposit on the syphon, which in most cases is more than sufficient to cover its cost.

THE COUNTER FOUNTAIN.

Counter fountains are used more particularly in populous places of resort, in a main thoroughfare, or where the traffic is great, then in the warm season, the demand is enormous, and the profits very large, as the drinks are paid for as they are drawn, and no expense is incurred for corks, wire, cartage, bottling, &c. Some of the most delicious drinks are supplied by means of these fountains, and where care and attention are given to this business, large profits deservedly accrue. Since the taste for non-intoxicating drinks is so much on the increase, the opportunity offers itself for anyone who has a shop or store in the position for doing a counter trade, to give the experiment a trial; it is one of the most beneficial additions to an existing business—such as a chemist's or confectioner's, hotel or café—being ornamental and profitable. The experiment entails no risk beyond the purchase of the fountains, as these drinks are not excisable.

The counter fountains as shown here are each suitable for distinct places for which they are designed.

The cylinders, have to be filled at a soda-water machine, and is then a matter of arrangement to have them filled from the nearest mineral water manufactory, the charge for doing so is about 8d. to 10d. per gallon.

PEDESTAL FOUNTAIN FOR DISPENSING ICED FRUIT DRINKS.

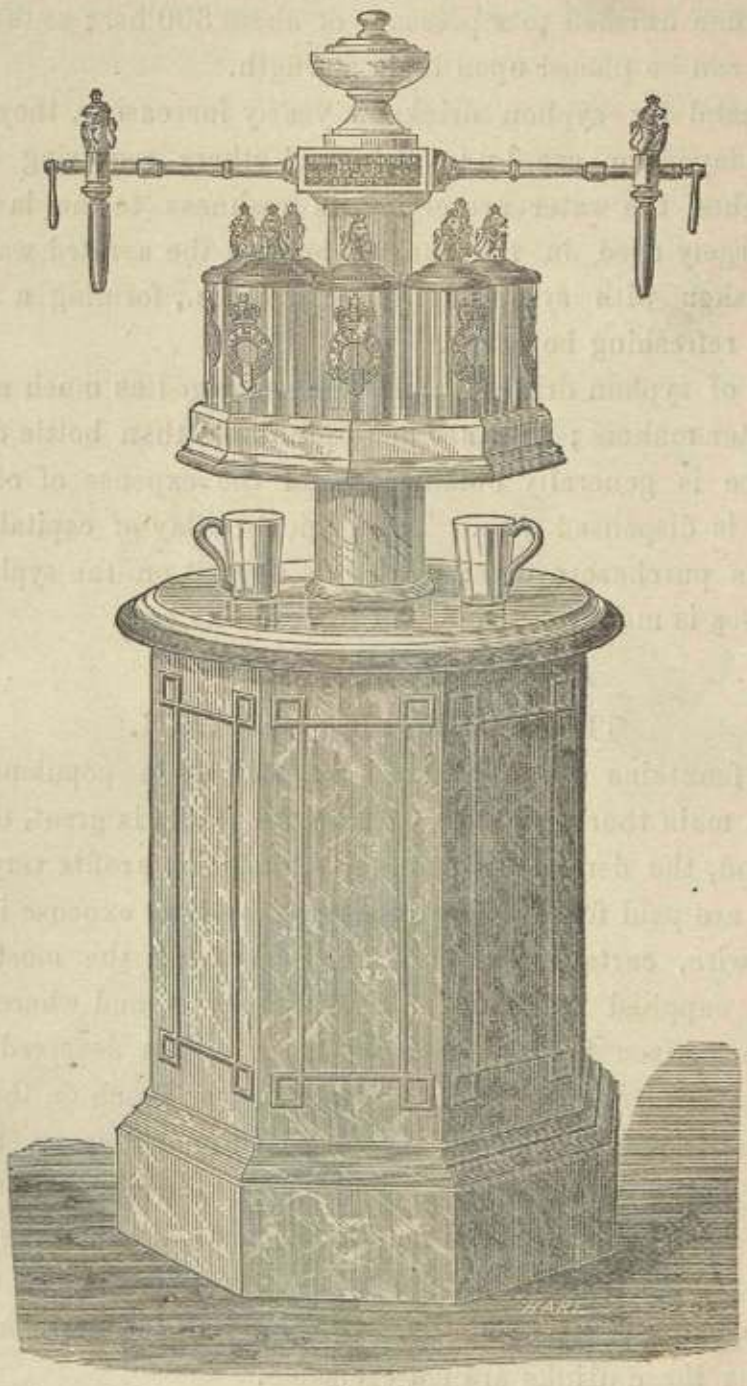


Fig. 8.

Price, complete, £35.

This handsome and complete arrangement is self contained; the cylinder containing the gaseous water is placed within the pedestal, one of the sides being made to open, it is then connected by block tin pipes to the draught arms, from which the aerated water is drawn. The gallery

containing the different drinks, eight in number, is made to revolve, so that the syrups may be brought directly opposite the customer. The syrups are drawn from the bottom into the drinking glass by raising the lion at the top, the glass is then taken to one of the draught arms, where it is filled with aerated water.

The refrigeration of the drinks is not lost sight of, as the cylinder has a cooling coil, through which the water passes. The entire arrangement is very unique; it forms a very handsome combination, and occupies but little space.

THE PILLAR FOUNTAIN.

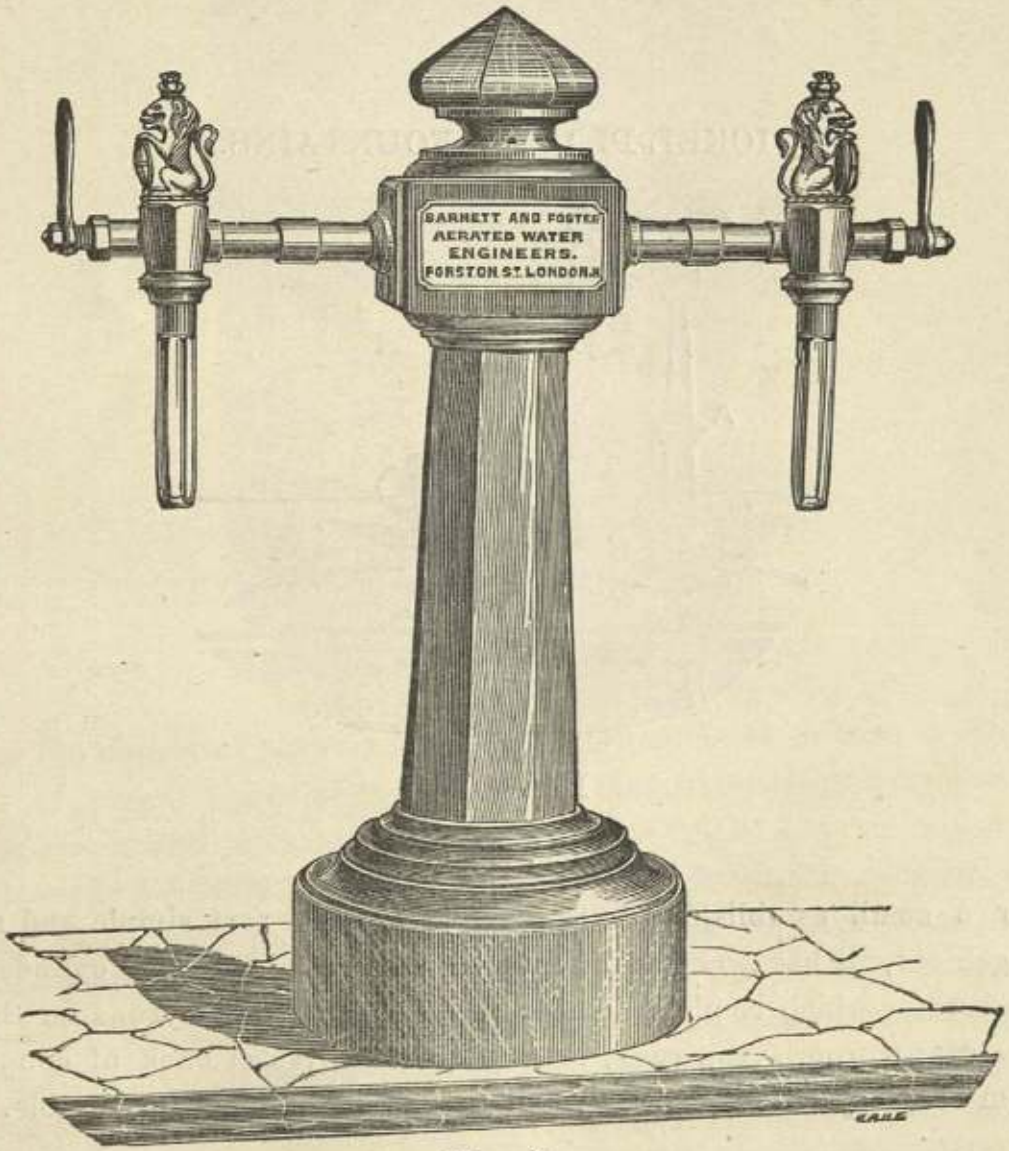


Fig. 9.

Price, complete, ready for placing on counter, with two arms £7 7 0

" " with one arm £5 10 0

The pillar fountain is composed of well-seasoned mahogany; French polished; the base is in one piece, and no part can be affected by wet coming upon it. The draught tubes for drawing the aerated waters are constructed from patterns similar to those used with the marble fountain.

The syrups for these may be supplied out of ordinary stoppered bottles, or from the syrup cans arranged on shelves, the cylinder being placed under the counter, and connected to the draught arm by block tin pipes.

NICKEL-PLATED FOUNTAINS.

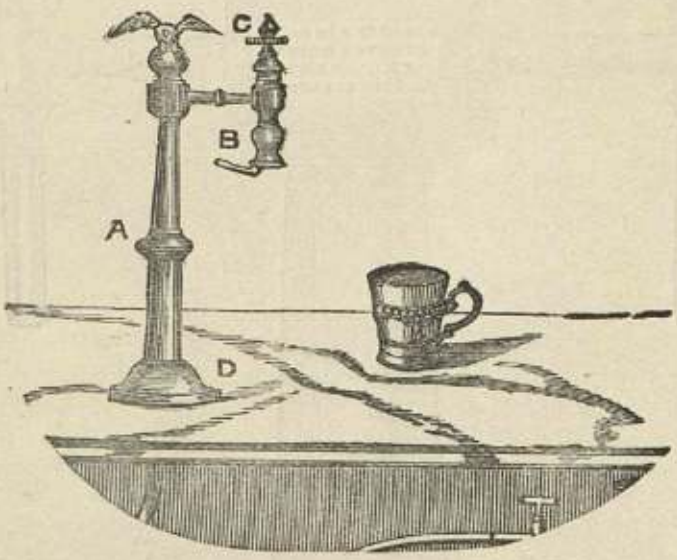


Fig. 10.

Price, £5 5s.

For a small establishment the above forms a very simple and neat arrangement, it has a cap and lining for connecting to the cylinder of aerated water which is placed under the counter. The syrups for these can be drawn from syrup cans, arranged on shelves at back of counter, or from ordinary corked bottles; but the former is much preferable.

CYLINDER FOR SUPPLYING COUNTER FOUNTAINS.

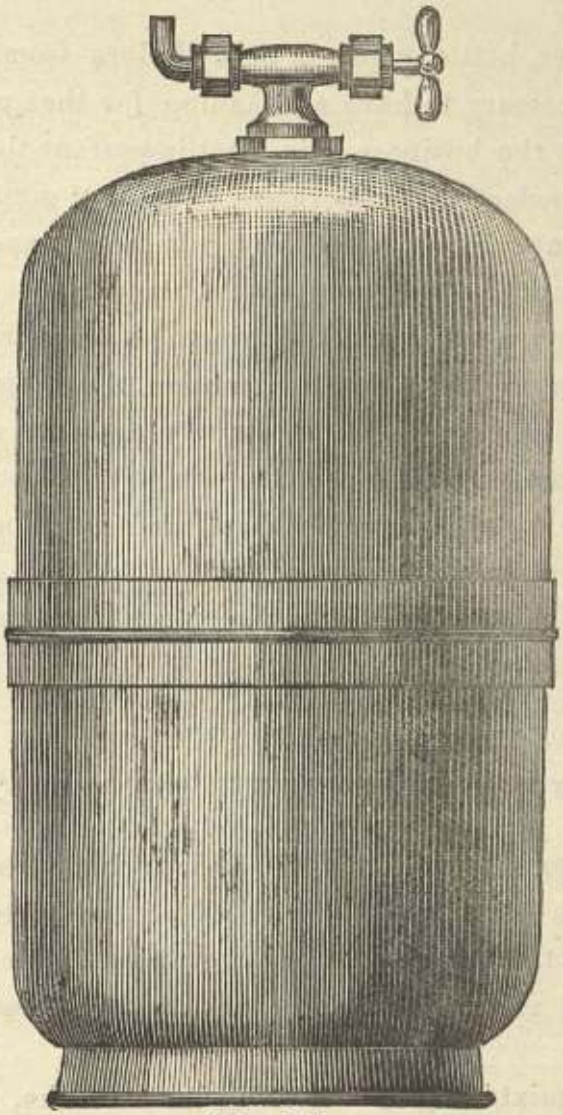


Fig. 11.

For the supply of counter fountains it is necessary to have a cylinder made of proper material so that the aerated water therein may be dispensed pure and without contamination, which is not the case with a great many cheaply constructed cylinders offered for sale by some makers at a low price. The cylinder shown here is constructed on the following principle: the inner shell is made of one piece of pure sheet tin, so that there is no possibility of metallic contamination however long the water may remain in contact with the metal, a desideratum it is impossible to obtain with those that are only "tin washed," as the action of the water quickly wears through the thin coating of tin, and the water becomes impregnated with copper. These cylinders are made in sizes from four to fourteen gallons; prices from £8 8s. to £14 14s.

ON BOTTLING STANDS AND OTHER MACHINES.

For filling either bottle syphons or cylinders from an aerated water machine, it is necessary to have a machine for that purpose; to those unacquainted with the business it is most important that they should be particular in their selection, as there are so many "ginger bread" affairs advertised which are simply worthless. It may appear strange to my readers why I should have been so particular in describing the various machines for the purpose of making mineral waters, while I passed over those for sweet making almost without notice, the reason is simply this: That the quality of mineral water entirely depends upon the class of machinery it is made with, while the quantity of sweets depend upon the sugar and the man who makes them, and also that so many worthless mineral water machines are offered at low prices by unprincipled people, which is seldom the case with confectionery machinery.

AERATED WATERS AND HOW TO MAKE THEM.

Aerated beverages may be divided into two classes, Alkaline and Saccharine. The Alkaline usually called mineral waters, such as soda, seltzer, potass, &c. The Saccharine are those which contain a portion of sugar, such as ginger beer, lemonade, and the various drinks made from the syrups.

The Alkaline mixtures, after settling in the tanks, are usually passed through a lawn sieve, and then pumped through the machine, which impregnates them with carbolic acid gas.

Saccharine drinks do not undergo this process, but a given quantity is put into each bottle or syphon, and the aerated water forced into the bottle on it.

Either hard or soft water may be used for aerated drinks so long as it is pure; where any doubt exists it is always best to have it filtered. Where a choice of water can be had, use hard or spring water for the manufacture of mineral water, and soft or river water for saccharine drinks. As I have before mentioned, it would be needless for me to give the process of making, as the machines differ so much in their construction, by different makers, and also in their sizes, that were I to attempt to give here a definite process it would perhaps cause trouble and con-

fusion, were they to be acted upon with a different machine than I intended them for, suffice it to say that all machines or appliances sold by me, or the firms I represent, will be accompanied by ample instructions for the working and keeping in order for the same, on the other hand the recipes given for the flavouring and making of syrups will apply to any machine, constructed on any principle, and will therefore be valuable alike to all mineral water makers. In these recipes citric acid is more particularly mentioned, and I consider it best, but some makers assert that tartaric acid suits their water best; it is therefore advisable to try both.

These recipes may be varied considerably, some of the most beautiful beverages have been produced by mixing several of the essences together, and altering the colour, sometimes this has been found to so increase the sale as to render them really valuable to a particular manufacturer.

In this case the mixture is kept a secret by those who introduced it. In all these drinks it is the essence, chemically extracted, that is used, as fresh fruit will not do for bottled goods, while for the fountain drinks the fresh fruit, being consumed as soon as mixed, forms that beautiful creamy beverage so much in demand.

In all cases, in the warm weather, it is advisable to have the factory as cool as possible, and more particularly the water; it is a good system, and is employed in many factories, to have the pump of the machine surrounded with ice, the refrigerator being external, any kind of ice may be used.

Mineral Waters, Lemonade, Ginger Beer, &c.

ALKALINE DRINKS—SODA WATER.

Bottle at a pressure of 120 to 140lbs.

Use 1oz. of carbonate of soda to every four gallons of water, after mixing see that it is all dissolved, and let it settle for two or three hours, it must then pass through a lawn sieve before it goes through the pump —that is a piece of lawn should be tied over the top of the solution pan as it runs through it from the supply cisterns.

These supply cisterns are best when made of slate. It is always advisable to let the draw-off pipe rise a couple of inches up the bottom, so as not to draw away the sediment.

SELTZER WATER.

Bottle at a pressure of 80 to 100lbs.

Two ozs. of quick lime, 2ozs. carbonate of soda, 4ozs. of common salt, each dissolved separately, then mixed with ten gallons of spring water, and allowed to settle ten or twelve hours before use; bottle the same as soda water.

LITHIA WATER

(Bottle at a pressure of 120 to 140lbs.)

Is carbonate of lithia put in the bottle, and the aerated water bottled on it, the usual quantity being five grains to the bottle, when bottled this should be shaken to better dissolve the carbonate of lithia.

LITHIA AND POTASS WATER.

Bottle at a pressure of 120 to 140lbs.

Carbonate of lithia 6 grains, carbonate of potass 5 grains; same process as lithia water.

MAGNESIA WATER.

Bottle at a pressure of 120 to 130lbs.

Four ounces of carbonate of magnesia to ten gallons of water, and settle twelve hours before using. The water used to dissolve the magnesia should be, by preference, charged with carbonic acid gas, that is, the magnesia should be put into a stout wine cask of four or five gallons capacity, filled up with aerated water, and corked and tied down at a pressure of about 15lbs for a few hours; then make up the ten gallons with plain water.

CARRARA WATER.

Bottle at a pressure of 140 to 160lbs.

Put 1oz. of Carrara marble into a crucible, and then into a clear fire

and when it has been at a red heat for about ten minutes it will be burnt into lime, let it cool, and then crush it to powder; stir it into ten gallons of spring water, and let it settle eight hours before using. Draw it off a few inches from the bottom, so as to avoid all sediment, and be careful *not* to break the film that has formed on the top. Bottle the same as soda-water.

Whenever the machine has been used for Carrara, you must, before leaving, pump some plain water through it, so as thoroughly to get rid of the Carrara, otherwise it will form an incrustation, and clog the pipe.

SEIDLITZ WATER.

Bottle at a pressure of 80 to 100lbs.

This is a beautiful mild aperient, and is in great request in some parts of India.

4ozs. of the tasteless salts of Rochelle, dissolved into a small quantity of warm water, and stirred into ten gallons of spring water (this may be varied to make it stronger or weaker), then let it settle five hours to get bright.

Bottle the same as soda water.

POTASS WATER.

Bottle at a pressure of 80 to 100lbs.

5ozs. of carbonate of potass, to ten gallons of spring water; settle twelve hours. Bottle the same as soda water.

TONIC WATER.

Bottle at a pressure of 100 to 120lbs.

Tonic water is quinine dissolved in aerated water, in the proportion of half a grain to each bottle; but some waters will not take it up unless it is dissolved in a small portion of sulphuric acid; this does not injure it, but it will keep longer if the water will take it up *without* it. If requisite, however, to use it, proceed as follows: after dissolving the quinine in water, add the sulphuric acid by single drops, stirring it

all the while with a glass rod. The quantity of sulphuric acid used should be about one eighth that of quinine.

Bottle the same as soda water.

CARBONIZED OR PLAIN AERATED WATER.

Bottle at a pressure of 120 to 130lbs.

This is pure spring water impregnated with carbonic acid gas only; it is getting into extended use by parties who require the sharp and pungent effects of the carbon gas, without acid or alkali, and is, to a great extent, superseding soda water. Icing greatly improves this beverage.

CONGRESS WATER.

Bottle at a pressure of 100 to 120lbs.

1oz. calcined magnesia, 20 grains bi-carbonate soda, 23 grains hydrate of soda, 7ozs. common salt. Add to half a gallon of water, and use as Vichy water.

CHELTENHAM WATER.

Bottle at a pressure of 100 to 120lbs.

1oz. sulphate of magnesia, 1¼ozs. sulphate of soda, 2ozs. rock salt. Dissolve in ten gallons of water. Bottle as soda water.

SACCHARINE DRINKS.

These are never pumped through the machine, but a given quantity of the syrup is put into each bottle by means of a syrup measure-tap, or better still, a syrup-pump attached to the filling machine and the aerated water bottled on it.

The best description of sugar is taken as the bases for quantities given for the following syrups. We recommend English titlers.

LEMONADE.

Bottle at a pressure of 80 to 100lbs.

A difference of opinion exists as to whether this syrup is best made by simmering over a slow fire or by merely pouring boiling water on the ingredients, but this is greatly influenced by the quality of the water itself, and we should recommend parties to *try all*, and see which suits their water best. The quantity of sugar and citric acid used to a gallon of syrup is also subject to variation, as some like it more acidulated than others. The usual proportions are 27lbs. of loaf sugar and 12ozs. of citric acid previously dissolved, to three gallons of water. Simmer over a slow fire for five minutes, carefully skim it and strain through a felt bag while hot, and when cooled down to the warmth of new milk, add 2ozs. of my soluble essence of lemon. A slight head is considered an improvement, to produce which add about ½oz. of the French gum extract to one gallon of syrup. One ounce of syrup to be put into the bottle, and the aerated water bottled on it.

LEMONADE. (Another process.)

Provide an earthen glazed vessel, holding about four gallons, rinse it out with boiling water to warm it, into this put about 27lbs. of loaf sugar and 12ozs. of citric acid, previously dissolved in a small quantity of boiling water, pour three gallons of boiling water over it; stir occasionally and when properly dissolved strain it through a felt bag. Drop the soluble essence of lemon on some large lumps of sugar till they have taken up two ounces, and when the mixture has cooled down to the warmth of new milk, drop in the lumps of sugar, and see they are dissolved before you proceed to use it. Tartaric acid may be used in place of citric acid, but it is not so good; 1oz. to each bottle as previous. The extract of lemon may be used in place of the essence.

TONIC LEMONADE

Is lemonade syrup flavoured with quinine, the quantity same as given in tonic water, or to palate.

REMARKS.—As the lemonade syrup forms the basis of so many of the

saccharine drinks, it may be as well to state that some makers prefer to use less water, and also to vary the proportions of citric acid and sugar, and it is also considered an improvement to add one drop of otto of roses to each gallon of syrup ; this, without adding at all to the quality of the drink, throws off a pleasant aroma on the opening of a bottle.

GINGER BEER (Concentrated).

The preparation of above is ready for immediate use. Quarter-pound to be added to one gallon of plain syrup, and thoroughly mixed. About 1 to 1½oz. to a bottle, and filled with aerated water.

GINGER BEER

(Bottle at a pressure of 80 to 100lbs.)

Is lemonade syrup flavoured with essence of ginger and capsicine. The soluble essence of ginger is added to the syrup by dropping the quantity required on to pieces of sugar, when the syrup is lukewarm ; the palate will be the best guide for quantity, as the essences vary much in strength, about ¾oz. to a bottle, and fill up the same as directed for lemonade. The albumen compound to be added at same time as the essence.

GINGER ALE

(Bottle at a pressure of 80 to 100lbs.)

Is ginger beer syrup coloured slightly with sugar or saffron colouring. An addition of pine apple will also greatly improve the flavour. Bottle the same as lemonade or ginger beer. Add albumen compound, S.Q.

GINGER ALE (Concentrated).

The preparation is ready for immediate use. About 1½ozs. to be added to one gallon plain syrup, and well mixed ; 1½ozs. to a bottle and fill with aerated water.

GINGERADE.

Bottle at a pressure of 70 to 80lbs.

1st.—Mix 5ozs. essence of cayenne, 5ozs. essence of ginger, and 5ozs. of water.

2nd.—Dissolve 3lbs. citric acid in half gallon of hot water.

3rd.—Dissolve 4ozs. magnesia and 20lbs. fine loaf sugar in three-and-a-quarter gallons of pure water.

Filter the first compound and add 7ozs., and also 14ozs. of the second to the third ; there will be no cloudiness. About 1oz. to a bottle.

CHAMPAGNE CIDER

(Bottle at a pressure of 80 to 100lbs.)

Is lemonade syrup flavoured with pear essence and coloured with the sugar colouring.

ORANGE CHAMPAGNE.

This is a very delicious drink, and should be put up in champagne bottles, which can be procured at a very cheap rate. A special corking machine is required, and also a better cork than usually in use with lemonade. It should be made to imitate the appearance of real champagne in the corking, capsuling, and labelling of the bottle, by this means a much higher price may be obtained. Seven gallons of water, 54lbs. of sugar, 1lb. 6ozs. citric acid. When cold add to each gallon 3¼oz. of orange tincture ; colour to fancy (sugar colouring). Add ¼oz. of albumen compound at same time as tincture is added. Bottle same as lemonade ; about 1½ozs. to half-pint bottle.

NECTAR

(Bottle at a pressure of 80 to 100lbs.)

Is lemonade syrup flavoured with the essence of pine apple.

PEPPER PUNCH.

A good winter drink.

1¼oz. of concentrated punch to one gallon plain syrup, and well mix; add a few drops of soluble essence of capsicine. About 1½oz. of the syrup for each bottle, and fill up with plain aerated water.

The following drinks are now coming into demand for winter use. By placing these before the public in an acceptable form, a good trade may in the winter time be created. Raspberryette, strawberryette, orangette, gingerette, lemonette, elderette.

These syrups are prepared by adding to the simple syrup a weak solution of citric or tartaric acid, and flavouring with the essences, adding a few drops of essence of ginger and capsicum, to palate. The colouring must also be added to give a rich appearance, and assimilate to the natural colour of the fruit.

Fruit and other Syrups for the use of Soda Water Fountains, Syphon, &c.

The following recipes are a compilation of some years experience by a gentleman, whose whole time and attention is devoted to the manufacture of aerated waters of every description, who has kindly supplied them for publication in *The Confectioner's Hand-Book.*

The following comprises the syrup made from the fruit and also the essences. It is always advisable, however, where fresh fruit can be obtained, to use it in preference to the essence.

These recipes may be varied to suit the taste and requirements; my main object in offering this collection is that each in its turn may be tried, as the quality of the water, varying considerably in each country, one set recipe would not answer for all.

A variety of syrups have been brought into use by adding the various wines, such as claret, hock, sherry, &c., to the simple syrup; others by the addition of spirits, as milk punch, by adding to Vanilla cream Jamaica rum and nutmeg.

ONE GENERAL RECIPE which answers for nearly all fresh fruit—although they are divided under different heads in this book—is as follows: Use nothing but the very best fresh fruit, which must be freed from stalks, &c., then crushed with a wooden instrument (not metal), and when well mashed, let it stand in a room of even temperature (about 68° F.) for four days, which will give it sufficient time for fermentation to have taken place, then press out the juice from the fruit and let it (the juice) settle in a cool cellar for two days, after which 5lbs. of the clear juice to be simmered with 9lbs. of loaf sugar; while warm strain through flannel. The colour may be improved by solution of aniline.

It is advisable to add to the fresh fruit before setting it for fermentation, about 2lbs. of powdered loaf sugar for every 100lbs. of fruit. When cold, it is ready for bottling. It is recommended to add 1lb. of spirits of wine to every 100lbs. of syrup, if making for export to hot climates, and fill in 6 or 8lb. jars, well cork and pitch them, and pack in coal ashes. In this way the syrups will keep some years in any climate.

Cleanliness should be strictly observed in all the utensils used.

When bottling for storing, skim the top of any floating matter from the syrups in the large pan, and see that no residue at the bottom goes into the bottle.

One of the most important discoveries connected with this business is that of salycilic acid,—not like carbolic acid, the former may be used to prevent fermentation, without acting in any way to the injury of health. It is perfectly tasteless, comparatively colourless, and does not in any way affect the flavouring or distinct characteristic of any matter it may be mixed with, and seems to be the one thing so long desired for preventing fermentation. In other words, it seems to act the part of a magician, and stays any change taking place, thus fruit may be preserved without boiling.

Put three grains of pure acid and five grains of sugar into a litre of water, placing the fruit into this solution, then cover the jars or bottles with bladder. Cherries, currants, raspberries, pears, grapes, &c., will keep for twelve months; expressed juices can also be kept in this manner, without loss of colour or flavour.

SIMPLE SYRUP.

Take of white sugar 15lbs., one gallon of water, dissolve with the aid of a gentle heat, strain, and when cold add the white of two eggs, previously stirred with a portion of the syrup, and mixed thoroughly by agitation. (The egg albumen is added to produce froth.) Keep in stoneware jars.

CAPILLAIRE.

Nine pounds of loaf sugar in 5lbs. of orange-flower water boiled till the sugar has dissolved and the syrup is clear; while hot, strain through flannel bag. Add to the cool syrup two drachms of tartaric acid previously dissolved in 8ozs. of the strongest orange-flower water (*aqua florum aurantorium*), then add 4ozs. of the best Rhenish wine.

LEMON SYRUP (Formula 1).

Simple syrup six pints, distilled water two pints, soluble essence of lemon 2ozs. (see price list at end of book), citric acid 2ozs., dissolved in boiling water; mix; if required coloured, the addition of saffron, S. Q.

LEMON SYRUP (Formula 2).

Take of oil of lemon twenty-five drops, citric acid ten drachms, simple syrup one gallon. Stir the oil of lemon with the acid, add a small portion of syrup, and mix.

LEMON SYRUP (Formula 3).

Grate off the yellow rinds of lemons, and beat it up with sufficient quantity of granulated sugar. Express the lemon juice; add to each pint of juice one pint of water, and 3½lbs. of granulated sugar, including that rubbed up with the rind; warm until the sugar is dissolved, and strain.

ORANGE SYRUP (Formula 1).

To be prepared from the fruit in the same manner as No. 3, for lemon syrup.

ORANGE SYRUP (Formula 2).

Simple syrup six pints, distilled water two pints, tartaric acid 2ozs., soluble essence of orange 2ozs. (see list at end of book). Colour with liquid carmine ten drops, and liquid saffron one drachm.

ORANGE SYRUP (Formula 3).

Essence or extract of orange (fresh) 1½ozs., simple syrup one gallon, imperial. After shaking well, add a solution of citric acid 2ozs. This may be slightly coloured with a few drops of tincture of saffron or turmeric.

VANILLA SYRUP (Formula 1).

Take of fluid extract of Vanilla 1oz., simple syrup one gallon, citric acid ½oz.; stir the acid with a portion of the syrup, add the extract of Vanilla; then mix.

VANILLA SYRUP (Formula 2).

Mix two fluid ounces of the extract of Vanilla with four pints of simple syrup.

GINGER SYRUP (Formula 1).

Simple syrup six pints, distilled water two pints, tartaric acid 1oz., soluble essence of ginger 2ozs., and colour it.

GINGER SYRUP (Formula 2).

Tincture or extract of Jamaica ginger (strong), 4ozs., simple syrup one gallon ; shake well.

GINGER SYRUP (Formula 3).

Nine pounds of loaf sugar boiled in 5lbs. of spring water till dissolved, and clear ; when cool add 12ozs. of the essence of ginger and 4ozs. Rhenish wine ; mix well and let settle.

STRAWBERRY SYRUP (Formula 1).

Take of fresh ripe strawberries ten quarts, white sugar 24lbs., water quarter gallon ; spread a portion of the sugar over the fruit in layers, let it stand four or five hours, express the juice, strain, add remainder of sugar and water, raise to the boiling point, and strain.

STRAWBERRY AND RASPBERRY SYRUP (Formula 2).

Mash the fresh fruit, express the juice, and to each quart add 3½lbs. of granulated sugar. The juice, heated to 180 degrees Fahrenheit, and strained or filtered previous to dissolving the sugar, will keep for an indefinite time.

STRAWBERRY SYRUP (Formula 3).

To 54lbs. of sugar add 30lbs. of water, and boil and strain as for raspberry. To the cooled syrup add 8ozs. of tartaric acid dissolved in 1¼lbs. of hot water, then 3ozs. of essence of strawberry, and add 2lbs. of sweet Hungarian wine, and colour a lively red with aniline.

STRAWBERRY AND RASPBERRY SYRUP (Formula 4).

Simple syrup six pints, distilled water two pints, tartaric acid 2ozs., fruit essence 2ozs. (see price list at end of book), colouring sufficient quantity.

RASPBERRY SYRUP (Formula 1).

From fruit, proceed as with strawberry, observing the same proportions, adding to each gallon 3ozs. of solution of citric acid.

RASPBERRY SYRUP (Formula 2).

From fruit juices take raspberry juice ; 1 bottle, red currant juice, half bottle or one pint, simple syrup one gallon imperial ; stir well.

CURRANT SYRUP (Formula 1).

Simple syrup six pints, distilled water two pints, tartaric acid 2ozs., fruit essence, 3 drachms (see list at end of book) ; colouring for red currant use liquid carmine, for black burnt sugar.

RED CURRANT SYRUP (Formula 2).

Can be prepared in the same manner as strawberry with the essence of currant.

BLACK CURRANT SYRUP (Formula 3).

Two pounds of petals of mallow, quarter drachm pure sulphate of iron ; these to be put into a pan, and 40lbs. of spring water poured on ; let it stand for eight hours, and then pass it through a lawn sieve, and allow the liquor to settle during the night ; now pour the liquor on to 54lbs. of loaf sugar and boil till the sugar is dissolved and the liquor clear ; while hot strain through a flannel bag. To the cooled syrup add 3ozs. of the essence of currants, and 4lbs. of sweet Hungarian wine. *Observe !* Tartaric acid is not to be added. Colour with solution of violet aniline (*Parine aniline*).

BLACKBERRY SYRUP.

Prepare from ripe fruit the same as strawberry.

MULBERRY SYRUP.

Same as for strawberry, but 3ozs. essence of mulberry. Take only 4ozs. instead of 8ozs. of tartaric acid.

NECTAR SYRUP (Formula 1.)

Extract Vanilla, ditto rose, ditto lemon, ditto almond, each 1oz. Mix, and add one gallon, imperial, of simple syrup; colour pink with carmine colouring.

NECTAR SYRUP (Formula 2.)

Mix three parts of Vanilla syrup with one each of pine apple and lemon syrup.

NECTAR SYRUP (Formula 3).

Five pints Vanilla syrup, one pint pine apple syrup, two pints strawberry or raspberry. Mix.

SARSAPARILLA SYRUP (Formula 1).

Two ounces essence or extract of sarsaparilla, one gallon simple syrup, imperial. Caramel or burnt sugar colouring sufficient to give the syrup the colour of treacle. Shake well.

SARSAPARILLA SYRUP (Formula 2).

One gallon simple syrup, compound sarsaparilla syrup, *ad. lib.*, 1oz. powdered extract of liquorice, oil of sassafras, oil of winter green, each fifteen drops, ten drops oil of anniseed; stir the oils with powdered liquorice; add a portion of syrup, stir smoothly, and mix the whole together by agitation.

PINE APPLE SYRUP (Formula 1).

Simple syrup six pints, two pints of distilled water ; tartaric acid, 1oz., essence of pine apple 1 drachm, colour with saffron.

PINE APPLE SYRUP (Formula 2).

Take two or three ripe pine apples, 16lbs. of white sugar, dissolved in water. Cut the fruit in thin slices, spread sugar over them, let them stand twelve hours, pour off juice and sugar, and set aside. Express the fruit, adding a little water. Then take sufficient quantity of water to make with the above liquid (juice and sugar) one gallon. Form a syrup with the sugar and water and boil the pieces of the fruit already expressed. When the syrup is nearly completed boil a few minutes to clarify, remove the scum and strain.

These fruit syrups should be bottled while warm, corked tightly, and when wanted for use, add equal parts of the fruit syrup and simple syrup. They will keep a year without a change.

COFFEE SYRUP (Formula 1).

Take of ground roasted coffee 4ozs., boiling water two pints, sugar 4lbs., infuse the coffee in the water until cold, strain, add the sugar and make a syrup.

COFFEE SYRUP (Formula 2).

Pure coffee roasted ½lb., infuse in half-a-gallon of boiling water, enough is filtered off to make half-a-gallon of infusion in which is dissolved 7lbs. of granulated sugar.

CHOCOLATE SYRUP.

Take of best plain chocolate 6ozs., shave fine, and add half-a-gallon of boiling water; boil in a covered vessel ten minutes stirred occasionally, then add 7½lbs. of loaf sugar, stir until dissolved, and remove from fire, stir occasionally until cold, then add extract of Vanilla 1oz.

ORGEAT SYRUP (Formula 1).

Take of cream syrup half pint, Vanilla syrup one pint, simple syrup half-pint, oil bitter almonds 5 drops ; mix.

ORGEAT SYRUP (Formula 2).

Take of sweet almonds (blanched) 8ozs., bitter ditto 4ozs., beat in a large mortar to an emulsion, adding at times a small quantity of water. When smooth, add 3 pints of water, mix and strain, in this dissolve, without heat, 6lbs. of sifted white sugar, and 4ozs. of fresh orange-flower water.

CREAM SYRUP (Formula 1).

Take of fresh cream half-pint, fresh milk half-pint, powdered sugar 1lb. Mix by shaking, keep in a cool place. The addition of ½ drachm bi-carbonate of soda to this syrup will prevent rapid change.

CREAM SYRUP (Formula 2).

Take of Borden's condensed milk one pint, water one pint, sugar 1½lbs. Heat to boiling, and strain. This will keep for over a week in a cool place.

AMBROSIA SYRUP.

A mixture of equal parts of Vanilla and strawberry syrup.

IMPERIAL SYRUP.

Equal parts of raspberry and orange syrups.

SHERBERT SYRUP.

Mix equal parts of orange, pine apple, and Vanilla syrup.

GRAPE SYRUP.

Mix half-a-pint of brandy, ¼oz. of spirits of lemon, and sufficient tincture of red saunders with one gallon of simple syrup.

MAPLE SYRUP.

Dissolve 3½lbs. of maple sugar in one quart of water. (Most of the syrups not made from fruit may have a little gum Arabic added, in order to produce a rich froth).

ROSE SYRUP.

Essence of rose 1oz., simple syrup one gallon. Colour pink with carmine colour, and acidulate slightly with solution of citric acid.

CAYENNE SYRUP.

Tincture of capsicum 2ozs., simple syrup one gallon. Mix, colour pink with carmine colour.

MULLED WINE WITH EGGS, No. 1.

First, my dear madam, you must take
Fine eggs, which carefully you'll break;
Into the bowl you'll drop the white,
The yolks into another by it.
Let Betsey beat the whites with a switch
Till they appear quite froth'd and rich,
Another hand the yolks must beat
With sugar, which will make it sweet;
Three or four spoonsful maybe'll do,
Though some, perhaps, would take but two.
Into a skillet next you'll pour

A bottle of good wine, or more ;
Put half a pint of water, too,
Or it may prove too strong for you.

MULLED WINE WITH EGGS, No. 2.

And while the eggs by two are beating,
The wine and water may be heating ;
But when it comes to boiling heat
The yolks and whites together beat
With half a pint of water more—
Mixing them well—then gently pour
Into the skillet with the wine,
And stir it briskly all the time,
Then pour it off into a pitcher,
Grate nutmeg in to make it richer,
Then drink it hot for he's a fool
Who lets such precious liquor cool.

JAMS, JELLIES, MARMALADES, ETC.

Having had several years experience as principal jam boiler in one of our largest manufactories I have the satisfaction of stating that during that time I have received many tangible proofs of my employers esteem ; I have therefore little hesitation in recommending several improvements on the old method of making preserves ; improvements which your humble servant has introduced, and are at this moment being worked upon in several houses to my knowledge. Jam, jelly, or marmalade, if properly boiled with its proportion of sugar, will keep good for years, in either glass, china, or earthenware vessels, without the aid of vinegar, brandy, or spirits of any kind. The old style of dipping the paper, for covering over the preserves, in spirits is simply useless, and therefore a needless expense ; if the jam is required for keeping any length of time, the surface when set may be slightly oiled with the best olive or salad oil, which will prevent any incrustation forming on the top ; it is not necessary when covering to make them air-tight, as they will keep just

as well without any covering at all, and the only benefit in covering is to keep the dust from the contents. It is an exploded fallacy to suppose that jam made from wet fruit will not keep, although dry fruit is always preferable, especially with raspberries or strawberries, as it causes them to lose their colour in boiling. As regards the quantity of sugar which should be used for jam making, I will make the general remark here which must be applied to all the following recipes, that, in giving the proportion of fruit and sugar, I have taken as granted that the fruit is in fair condition for preserving ; if it is very green or very ripe you must add for the former a little more sugar, and for the latter a little less. As regards the sort and quality of sugar which should be used in preserving, I have always found loaf and good crystals to answer the purpose best, for quality, colour, and quantity. There is no profit in using cheap sugar called pieces, it reduces the quality, deadens the colour, and loses considerably in weight while boiling. I should also object to using raw sugar for preserving purposes, I have never found it work well with any kind of fruit. Whether jams, &c., are boiled over a fire, stove, or by steam, it is necessary to have a sharp heat, in order to get a good colour and a free sparkling jam or jelly, when boiled over a fire or stove, they must be stirred almost continually, or they will catch at the bottom of the pan and burn ; should this unfortunately occur, which may be known by the smell and smoke coming up through the boiling liquid, lift off the pan at once, pour out the contents, clean the bottom, replace the jam, and finish boiling.

N.B.—In order to make the work as plain and intelligent as possible, I give the recipes and instructions for preserving by steam separate.

CHEAP JAMS.

Beginners in this branch have usually an idea that there is *something* used by the trade to increase the bulk and cheapen the product besides fruit and sugar. Many of them commence a series of experiments with turnips, vegetable marrows, corn flour, ground rice, Irish moss, &c., but as far as the writer has been able to learn, the result of such conglomerations has been a complete failure, which in many cases has been attended with considerable loss, not only through waste of materials, but by seriously injuring the business reputation of the manufac-

turers. It is needless to point out to beginners the importance of making a good article which will retain its flavour and keep in condition for at least twelve months, that buyers may have confidence when stocking that they run little or no risk from their turning bad. My experience of mixture of vegetables and fruit is that it ferments in a few days, and where farinaceous food has been added the jam in a few weeks becomes dry and sour.

To reduce the cost it is advisable that makers turn their attention to the judicious mixing and blending of the different fruits, also to the careful boiling of them. Although opposed to the introduction of any foreign matter into the jam pan, I do not advocate that what may be termed our fine jams, such as raspberry, black currant, strawberry, &c., should be made from the fruit and sugar only, as I am of opinion that these jams are not only cheapened, but improved by the addition of apples. The flavour of black currants and raspberries are very strong, and if not boiled when fresh have a tendency to acidity. This may to a great extent be remedied, and even when the fruit is quite fresh the jam may be improved by the use of apple juice. When our fine fruits are in season apples are not to be bought, and raspberries, strawberries, &c., must be preserved when we can get them, but that is no reason why they should be sold just then, or in any large quantities that is sufficient to keep the customers supplied until apples are in the market. However, a good substitute for apple juice is gooseberry juice, which fruit is in season at the same time as the finer sorts. The flavour of the gooseberry is much stronger than the apple, and cannot be used in such quantities without making its presence known, but when used with care will give a brilliant colour and fine consistency to the jam.

Large firms preserve the fruit when in season, to be afterwards worked into jam. There are several different methods of doing this; some preserve with sugar, and some without (the process for the latter will be found on another page). To preserve the fruit with sugar it is safest to add the full quantity; in fact, make a pure jam of it and put it in stock, it is then either ready for sale or may be re-boiled as required with apple juice.

APPLE JUICE FOR JAMS.

This method has for many years been adopted on a large scale by the first houses in the trade, and the few customers who really did know that there was any addition to the fruit mentioned on the label preferred the mixture to jam made from all raspberries or black currants. But some cutting firms have sometimes overdone it, and turned out stuff for black currant jam which was six parts out of seven simply apple jelly, and even this was much liked, and was really very good; but it was such a difficulty to find the currants. However, a good quality is made from equal proportions of jelly and fruit. Wash in cold water any quantity of good cooking apples, cut them up in slices with a knife, put them into the pan and cover them with water; boil until they are quite soft and pulpy; should they become thick, add more water; when thoroughly done, lift off the fire, and strain through jelly bags. To every pint of this juice allow 6ozs. of sugar; put into the pan any quantity in this proportion; boil until it jellies, then add raspberry or other jam in fair proportion, and simply allow it to boil through that it may be well mixed. Should the raspberries not have been preserved with sugar the proper quantity must be added to the juice, in addition to the 6ozs. allowed for the juice. In making the apple juice, see that plenty of water is kept in the pan, so that it may be thin enough to run through the jelly bag. What is left in the bag may, if boiled when fresh, be added to other fruits to make what is known as family jam, mixed fruit preserve, &c. Gooseberries are treated in the same manner for this purpose.

GLUCOSE IN JAMS.

Many jam makers use large quantities of glucose for the purpose of reducing the cost, and, as they think, of causing the mixture to congeal. Opinions differ on this subject, and the writer is amongst the many who have tried it and discarded it altogether. However, as it is still a recognized ingredient for the purpose mentioned, and having no wish to appear one-sided, will here give the necessary instructions for using it. Glucose not having the same keeping properties as sugar is used in greater proportions, *i.e.*, 14lb. glucose is understood to be equal for preserving purposes to 10lb. sugar. In boiling small quantities, the

following is found by experience to be the proper proportions :—28lb. fruit, 16lb. sugar, and 10lb. glucose, the glucose to be added when the jam has finished boiling, then simply boil through and well mix by stirring.

HINTS ON JAM BOILING.

Preserving pans should be made of copper or bell metal, when used they should be bright. Stewpans made of iron, glazed inside, are also very suitable for jam making ; avoid using iron or tinned pans, they turn the colour. Never use tin, iron, or pewter spoons for skimming. These precautions are necessary to preserve the true flavour and colour in jams or jellies. Coloured fruits should be boiled rapidly before the sugar is added, but not too much, or they will become too thick to dissolve the sugar and throw up its scum. Never place preserving pans flat upon the fire, let them rest on a trivet ; this will render the contents less liable to burn. Have the fire as clear as possible before putting the pan on, but with the coals sufficiently fresh to carry through the operation, as to add fresh fuel would cause smoke, the flavour of which is not so well liked. Let everything used be perfectly clean and dry, especially pots, bottles, and the like. Jams, jellies, &c., keep better under lock and key.

Jams, Jellies, Marmalades, Etc. (fire heat).

RASPBERRY JAM.

Put any quantity of raspberries in a clean bright pan (copper or brass), together with 12ozs. of loaf or crystal sugar to each pound of fruit, with about a quart of water to every 14lbs. ; put it on a sharp clear fire, and stir almost continually, until the whole has boiled for a quarter of an hour or twenty minutes. When it begins to feel thick in stirring, take out a small quantity on a plate, stand it in a cool place for two or three minutes, and if it congeals the jam is done, if not boil it a little more, and try again until it sets on the plate.

N.B.—A learner while trying should stand the pan off the fire until he sees whether it is done. The best method of trying jam or jelly is by dipping in your spaddle and holding it above the jam while boiling, if done it will drop off in webs ; considerable practice is required to test

jams by this means, but when acquired much time is saved, and the consistency determined more accurately.

NOTE.—It is advisable to boil raspberries and other red fruit a few minutes before adding the sugar, as it brightens the colour; raspberries bought for preserving are generally already free from stems, if not, of course it is understood the stems and leaves must be taken from them.

STRAWBERRY JAM.

To make a nice strawberry jam add apple juice (see apple jelly) instead of water, be careful in boiling this jam as the fruit is delicate and boils thin, put in the same quantities as for raspberry, it will require a little longer boiling, but do not overdo it or you will spoil the flavour, try it in the same manner as directed for raspberry.

GOOSEBERRY JAM.

Gooseberries of any kind will make good jam, but the best for the purpose is the red jam gooseberry, or better still the green gooseberry known as cockspurs. Put any quantity (which your pan will conveniently boil) of gooseberries with 14ozs. of sugar to each pound, add a little water, and boil as directed for raspberries; if the fruit is very green add a little more sugar, as this jam is more liable to turn off; very ripe fruit will not make a good jam, it boils dark, and the skins get tough.

PLUM AND DAMSON JAM.

For domestic use it is advisable to have the fruit stoned, especially where there are children, this should be done previous to boiling; English fruit is the best for preserving, avoid buying the Dutch mussel plum; if the fruit is sweet, such as magnum bonum or Orleans, 12ozs. of sugar will be sufficient, but if sour and hard, like the white egg or Worcester plum, 14 or even 16ozs. will not be too much; put the fruit and sugar into your pan at the same time with a little water, proceed

as for other jam trying in the same manner ; the same remarks will apply to greengages.

BLACK CURRANT JAM.

Having remarked in one or two works which profess to give instructions in this branch, the reader is recommended to "rub the fruit through a copper or cane sieve, this practice is to be condemned, it injures the flavour, pick the stems and leaves from the fruit with the hand, put 16ozs. of good loaf or crystal sugar to every pound of currants, with a little apple juice, or water, boil with care on a brisk fire.

N.B.—It is a fallacy to suppose any kind of sugar will do for black currants, to make a good jam good sugar must be used, apple juice is a great improvement, black currants when not too ripe have a great tendency to congeal, and do not require so much boiling.

RED CURRANT JAM.

This fruit should be fresh or the flavour will be gone ; treat them in the same way as black currants.

APPLE JELLY.

Wash in cold water any quantity of good sound cooking apples, cut them up in slices with a knife, put them into the pan and cover them with water, boil till they are quite soft, should they become thick, add a little more water, strain them through a flannel jelly bag, stir them while on the fire or they will catch ; to every pint of juice allow 6ozs. of sugar, put into the pan any quantity in that proportion, boil until it jellies on the plate, or falls off the spaddle like a web ; colour with a little cochineal. In boiling jelly see that you have a good strong fire, the brisker the fire the better for quality and colour.

N.B.—In boiling off the jelly it does not require stirring after the sugar melts, but some apple juice has a great tendency to flow over, this you must watch. In every treatise which I have seen upon this branch

gives the old method, viz., to pare and cut the core out of the apples before boiling; I have never experienced the advantage to be derived from this trouble, but I feel I should be taking too much upon myself in condemning such an old and established recipe, therefore I shall simply ask the reader to try my way and judge for themselves.

RASPBERRY FLAVOURED JELLY.

This is made from apples exactly as apple jelly, mix with a little water two teaspoonsful of orris powder, with one teaspoonful of tartaric acid, when the jelly is done this quantity will be sufficient to flavour 14lbs.; before the adulteration act the author has made tons of this jelly, which has been labelled and sold as pure raspberry jelly.

RASPBERRY JELLY

This may be made by boiling the raspberries with a little water, and strain as directed for apple jelly, for every pint of juice add ¾lb. of good loaf or crystal sugar (more or less, according to the substance of the juice), as it gets done very quickly, it requires close attention while boiling off; a portion of apple juice mixed will cheapen by increasing the bulk, and jelly made with this mixture is preferred by some to the pure raspberry. Another method is by putting the raspberries in an earthenware pan, and standing them in a cool oven during the night, strain off in the morning and pass the juice through a jelly bag; to every pint of this juice add 14ozs. of sugar, and boil off as before.

RED CURRANT JELLY.

Proceed in the same way as directed for raspberry jelly (both recipes will apply); the pulps which are left in making jellies may be made into a good common family jam by mixing them with the same weight of fresh apple pulp, which have been rubbed through a sieve just fine enough to prevent the pip of the apple passing through; to every pound of the mixture allow 8 or 10ozs. of sugar, and boil off.

GRAPE JELLY.

Strip from the stalks some fine ripe black cluster grapes, put them into the pan over a gentle fire, let them burst, the juice flows freely from them, pass through the jelly bag without pressure, weigh the juice and boil over a brisk fire for fifteen minutes, lift it off and add 14ozs. of loaf sugar to every pound of juice, and boil till ready (about fifteen minutes), keep it stirred while boiling and well skimmed.

ORANGE JELLY.

Peel any quantity of fine sweet oranges and squeeze them through a strong linen bag; dissolve in hot water, just enough to cover, 1oz. of isinglass to every six good sized oranges; to one pint of juice add 1lb. of sugar; put it on the fire and when it begins to boil pour the isinglass in, boil fast for about twenty minutes; put it in hot jars.

LEMONS may be treated in the same manner, with the exception that they will require 2lbs. of sugar to every pint of juice.

SEVILLE ORANGE MARMALADE.

Put any quantity of Seville oranges into a large earthenware pan and cover them with boiling water, when they have soaked for ten minutes, with a knife cut the rind into four equal parts, take out the pulps, pass the rind through a machine or cut it up into strips with a knife, boil the rind till tender, changing the water once or twice; strain through a sieve. Boil with a little water the pulps, separate for a few minutes and rub them through a sieve just fine enough to keep back the pips. Mix pulp and rind together, weigh, and to every pound of the mixture add one pound of the best loaf or crystal sugar, and boil off on a good brisk fire, testing it in the same way as directed for jam.

LEMON MARMALADE is made precisely as the orange, but with a little more sugar.

N.B.—This is exactly as made in Dundee and other large houses in Scotland.

QUINCE MARMALADE.

Pare and core any quantity of ripe quinces, put them in a pan and cover with water, boil till quite soft, rub through a fine cane sieve, allow 10ozs. of sugar to every pound of pulp, and boil on a moderate fire, stir all the time, as this preserve is very liable to catch. A little apple juice is a wonderful improvement.

PRESERVES BY STEAM POWER.

Nearly all manufacturers for the wholesale trade have adopted steam as a means of boiling instead of fire as formerly; the saving of labour by this process is no less remarkable than the facility with which it can be made; like most modern inventions in the business or trade of a confectioner, it has caused quite a revolution in this particular branch. One man could not possibly attend to more than one pan boiled over a fire or stove, and a good day's work would not exceed 3cwt. of jam, or half that quantity of jelly. By the aid of steam the author has superintended six pans, turning out on an average 1½cwt. each boiling per pan, or 22 tons per week. It would not be to the interest of the large majority of my readers to go fully into the details of the process. I will therefore try to give satisfaction by being brief on the subject, and, for the benefit of those who may require fuller information, I shall be pleased to communicate by post, or, where convenient, to see them personally. For the manufacture of preserves by this method, it is of course necessary to have a steam boiler, the size of which must be judged by the quantity of jam you wish to make, and the number and size of the pans to be supplied. The pans which I have always found to work best are those made by a large coppersmith in Dundee (it must be understood that I have no interest in recommending any maker, I simply state facts for the benefit of my readers); to have sufficient steam you must allow 4 horse-power for each of these pans, in averaging the size and power of the boiler, one pan will boil comfortably 1½cwt. of jam each time, or one ton per day, while a ½cwt. of jelly will be enough to boil off at a time; it will be also necessary to have what is called by the trade a "steam tub," that is a cask to hold say sixty gallons, more or less, with a block tin or copper coil perforated, through which the steam passes,

for boiling apples, orange chips, &c. The pressure of steam for boiling purposes should not be less than 35lbs., tables, benches, &c., must be erected according to the size, shape, and convenience of the workshop.

N.B.—See also instructions for boiling by fire heat.

MIXED FRUIT JAM OR FRUIT PRESERVES.

The above, besides several other names, are given to a common or cheap jam, which is made by most large English manufacturers, and the demand for this class of jam is enormous. There is no preserve that differs so much in quality and composition as this does, in fact, from the many samples I have seen of different makers, I should think they each adopt a mixing of their own. All manner of dried fruits I have known boiled into this preserve, such as dates, figs, raisins, currants, &c., which were not in the best condition ; nevertheless the article sells, and a fair quality will always commands a quick sale. The following will be found a recipe for a thorough good wholesome palatable jam : fill the steam tub full of cooking apples, cover it and turn on the steam for twenty minutes, or until the apples are squashed, they will then have sank a third part down the cask, bruise with a long spaddle any apples which may remain whole against the side of the tub, fill up to the top with cold water, turn on the steam again gently till the whole boils, watching that it does not flow over, rub through a fine cane sieve to keep back the pips, measure with a pail holding two gallons, put in the jam pan say five pailsful of the pulp, together with 9lbs. of sugar to every pailful, 28lbs. of plums, allowing 21lbs. of sugar for them, making in all 66lbs. of sugar, boil off with good steam, colour with magenta crystal.

If dates are to be used they must be treated in the same way as apples, they will take much longer to soften, when thoroughly smashed add a few pailsful of water, bring them again through the boil, stirring them up from the bottom ; rub through a coarse iron wire sieve to keep out the stones ; a pailful or so of this pulp may be added with the other ingredients to each pan of fruit preserve, allowing from 4lbs. to 6lbs. of sugar per pail, according to the quality and condition of the dates. The same remarks will apply to figs. Raisins and currants spoil the jam ; I will therefore say nothing about them. The quantities of fruit and

sugar given in this recipe must not be taken as stereotyped, because the nature of apples and consistency of the pulp differ so much it would be impossible to be exact ; having got the principle you must judge by tasting and trying the preserve after it has been made a few hours, to determine the exact proportions. The jam, when well boiled with its proper quantities, will be bright, free, and stiff ; if it is tough or syrupy, it contains too much sugar, if it is soft and does not congeal, it lacks sufficient sugar or wants a little more boiling.

GOOSEBERRY, PLUM, AND DAMSON JAM. (By Steam.)

The instructions given for jam made by fire heat will apply, the only difference is in quantity ; a good sized steam pan will take 112lbs. of any of these fruits, and 96lbs. of sugar, add a pailful of water or apple juice, boil off with a pressure of steam not lower than 35 to 40lbs., stir it occasionally till the sugar dissolves, and when it gets thick try it with a long stick, when it falls off in webs the jam is done ; practice will be required before being able to bring it off to a nicety, it boils almost too fast to try it by putting a little on a plate.

N.B.—The above was the Author's proportions when the fruit was in fair condition, if very green use a little more sugar, if ripe a little less. Should the fruit be very ripe and smashed, use plenty of apple juice, allowing a fair proportion of sugar for it, this will give it a body and cause it to congeal. Apple juice will be found very useful, and in fact a remedy for nearly all the " ills that fruit is heir to."

RASPBERRY AND STRAWBERRY JAM. (By Steam.)

When fruit is preserved in quantities raspberries and strawberries generally arrive in large casks already picked off the stems, but all more or less fermented, this will cause it to boil a bad colour, which must be remedied by using a little artificial colouring. Allow this fruit to stand no longer than absolutely necessary before using ; boil it the same day it comes in if possible, or the flavour will follow the colour. I recommend a little apple juice to be used with both these fruits. Strawberry boils much thinner than raspberry, and is more difficult to determine when it is done : it may not look boiled enough when it may be over

done ; watch it carefully, directly it appears to jelly on the stick turn off the steam.

BLACK AND RED CURRANT JAM. (By Steam.)

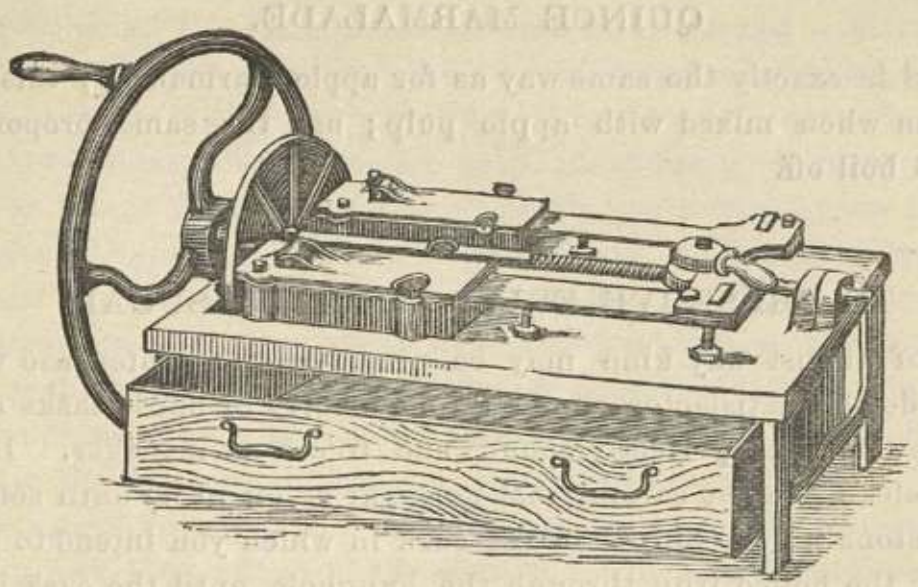
These fruits by large makers are generally rubbed through a sieve, the Author has made it both ways, and I can assure my readers the preference by the customers for the hand picked fruit was so universal that the proprietors adopted the system of having all currants picked ; the flavour is superior, the appearance much better, and altogether a jam, to my mind, better by half, the cost of picking is trifling ; I think we paid about one shilling per hundredweight. The quantities of fruit and sugar will be about the same as for plums, &c. Apple juice may be used largely ; boil as instructed for other jams.

APPLE JELLY. (By Steam).

Fill the steam tub three parts full of clean cooking apples, cover, turn on the steam till the apples are smashed (about twenty minutes), bruise with a long spaddle any apples not broken, fill it up to the top with cold water, turn on the steam until it boils ; strain through flannel jelly bags, put into the jam pan three pailsful of this juice, strained through a very fine hair sieve, with 21lbs. of sugar, boil with steam at a pressure of not less than 40lbs., stir till the sugar dissolves, when ready let it stand one minute, skim it and pot it quickly, or it will set.

COLOUR FOR JAMS AND JELLIES.

The best and cheapest colour which I have used is magenta crystal, it may be had from most chemists, or the publisher will supply it, dissolve a little in boiling water and add it to the jam when boiling ; it is very powerful and a little goes a long way, it must therefore be used with caution or you may spoil your preserve by making too deep a colour.



ORANGE MARMALADE. (By Steam.)

Put any quantity of Seville oranges into a tub, cover them with boiling water, mark them into quarters with a knife, separate the pulp from the rind, pass the rind through the cutting machine (see illustration) and boil the chips in the steam tub till tender, so soft that you can nip them through between your thumb and finger, strain them through a sieve, boil the pulps in the jam pan with a little water until mashed, pass through a sieve to keep back the pips, mix the pulp and chips together and boil off with 14ozs. of sugar to each pound, the same as directed for jams. Use the best loaf or crystal sugar in order to get a bright colour.

N.B.—Lemons must be treated in exactly the same manner; but will require more sugar. Price of marmalade machine £10.

APPLE MARMALADE.

Boil a quantity of apples in a preserving pan or steam tub, if in a pan cover them with water, allow them to boil till quite soft, take them off the fire and press through a fine cane sieve so fine as to prevent the apple pips from passing through; put this pulp back in the pan with 10ozs., of sugar to every pound of pulp, boil off on a good fire or with high pressure steam; if on a fire keep it well stirred, try it in the usual way; it gets ready very quick.

QUINCE MARMALADE.

Proceed in exactly the same way as for apple marmalade ; this makes a nice jam when mixed with apple pulp ; use the same proportion of sugar and boil off.

TO PRESERVE FRUIT WITHOUT SUGAR.

Fruit of almost any kind may be preserved for winter use without sugar, to do this satisfactory some strong sherry or spirit casks may be used ; they must be perfectly sound and free from leakages. Boil the fruit in a clean pan (be careful that no sugar is left in it) until soft, burn with brimstone all the air out of the cask in which you intend to put the fruit, pour the boiled fruit through the bunghole until the cask is quite full, place the bung in and put the cask aside for a day or two, then bore a hole in it with a gimblet, a little air will immediately escape, have a small wooden peg ready, and drive it in the hole directly. Many tons are preserved in this way every season by the large manufacturers, for working up in the winter, and the fruit is almost as fresh as when picked from the trees.

RASPBERRY AND BLACK CURRANT CAKES.

The pulp of raspberries and black currants (left from jelly making) may be used for making cakes. Put them in a pan over a stove with a slow fire, stir them until they flap against the sides of the pan, when they are sufficiently done the bottom of the pan will show, as it is moved about with the spaddle ; take it off and mix in a third of the weight of fruit of powdered loaf sugar. Mix it well in and roll it out on wafer paper, put it on a tray and cover with wafer paper, or it may be pressed into tin moulds, put it in the drying-room for a day. The pulps of damsons plums, black currants, &c., may be dried down in the same manner after being rubbed through a sieve, do not use any sugar before the pulps are quite done.

CANDIED ORANGE AND LEMON PEEL.

Cut the oranges and lemons intended to be candied in half length-

ways, squeeze out the juice, make a brine with salt and water, so strong that an egg will float on it, put the peel in it and allow them to remain for not less than ten days, strain and boil in water till quite tender, put them in cold water, clean out the pulp, place the peel loosely into one another and pack them in the vessel which you intend to use for syruping; boil sufficient loaf sugar to cover them to the degree of feather, let it cool and pour it over them, drain off in a day or two, add more sugar to it and warm up, pour the syrup over the peel again, and repeat this process until the chips get saturated and coloured, it may then be used or sold as drain peel. Before candying drain all the syrup off and dry the peel in the stove room, boil a syrup a little higher and grain on the side of the pan only, put your peel in, and lift out each piece separately, with a little of the grained sugar from the side, and place them on wire trays till cold.

N.B.—The raw peel may be preserved for any length of time by keeping it in the brine till used.

BOTTLED FRUIT WITHOUT SUGAR.

Fill some wide mouthed glass or stone bottles with almost any kind of fruit (see that the fruit is well packed in), cork them tight with the best corks, secure them strongly by tieing down with wire or strong twine, place them upright in your boiling pan, with a little hay between to steady them, fill the pan up with cold water to the neck of the bottles, place on a moderate fire until it boils; allow it to boil for ten minutes, then withdraw it from the fire, when the water is cool remove the bottles, resin the corks over, and they will keep for years.

DAMSONS AND OTHER STONE FRUIT.

For this purpose they should be gathered before they are quite ripe and on a dry day, pack them in dry bottles, picking out all damaged or bruised fruit, when quite full cork them with good corks (not bungs), loosely, place them in the pan with cold water, to reach half-way up the necks of the bottles, allow the water to heat gently to the boiling point, and after being kept at this heat for two or three minutes lift them off

the fire and allow them to cool; when quite cold cork them tight, place them in a cool dry place. When preserved in this way they are equal to fresh fruit for tarts, pies or puddings, or any other purpose, for which fresh fruit is used. Filling the bottles with water is a bad practice, as it deprives the fruit of much of the flavour, and in no way adds to their preservation.

TO FROST FRUIT.

Select the finest plums, cherries, apricots, grapes or small pears, leave on their stalks, whisk the white of eggs to a stiff froth, dip the fruit in the beaten eggs, leaving the stalks out, lift them one at a time and cover them with finely powdered sugar, cover a tray with white paper, lay the fruit on it and place in a cooling oven, when the icing becomes firm, pack and put them in a cool place.

PRESERVED PEACHES.

The peaches may be either preserved whole or in halves, if whole prick them with a pin, put them in a pan with cold water, and let them just boil, strain and put them again into cold water to cool, when cold strain them again and pack them in an earthen pan, boil sufficient sugar to cover them, let them remaing in the syrup for one night, drain off the syrup, add more sugar and boil it a little higher, cover again and allow them to remain in the syrup for say, for halves two days, and for whole peaches three days, drain them again and put them in fresh syrup for another night, repeat the process of straining again, and boil the syrup a little higher, put the fruit in it, and allow the whole just to boil, and put them in jars for sale or use.

APRICOTS PRESERVED WHOLE.

Take a quantity of apricots not quite ripe and slit them down the middle on one side, and take the stone out, put them into boiling water to blanch, they will be done enough when they rise to the top of the water, lift them carefully out with a ladle, and put them into cold water

immediately, drain them on a sieve and pack them on a pan for syruping, prepare syrup and pour over them hot, let them stand in the syrup for three days, drain it off, add a little more sugar, boil it up again and pour it over them whilst boiling, repeat the process at the end of two or three days, and then put them aside for use. The stones may be cracked, the kernels blanched, and put again in the middle of the apricots before being finished.

PASTRY.

THE OVEN.

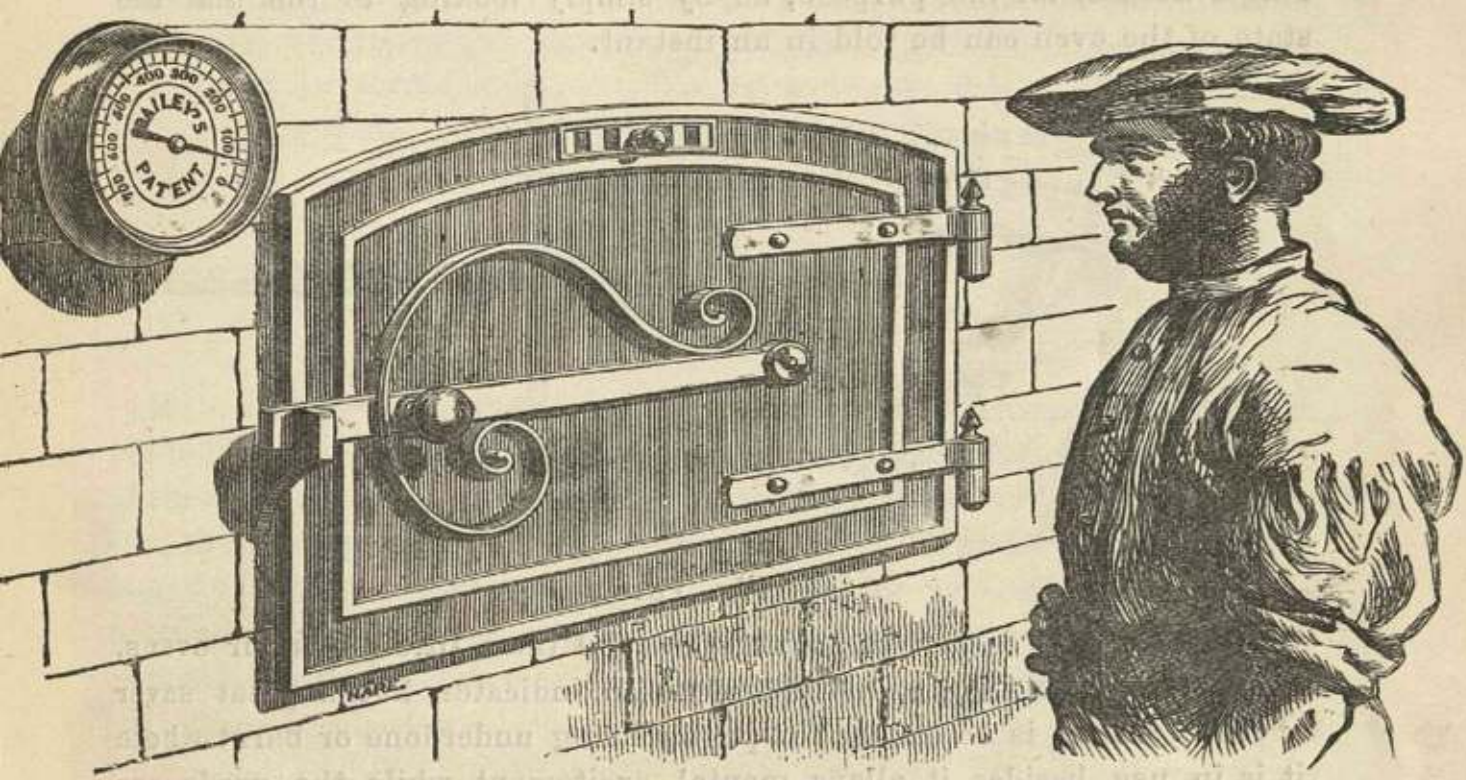


Fig. 12.

In making pastry it is necessary that the oven be closely watched and its heat regulated according to the articles which is undergoing the process of cooking. If pastry is well baked it can be handled about with care or placed in clean tins or patty pans without their being *greased or buttered.* On the other hand, should the pastry be insufficiently baked, it is liable to be squashed when lifted from the patty pans, and if not handled very tenderly it soon gets out of shape when moved about. Light paste must be baked *moderately quick,* if the oven is too

cool the goods will not come to perfection either in colour or size; and if the oven be too hot they become brown, and puff up before ready, and if taken out will fall flat. Again, puff paste should not be baked in an oven with large goods, which throw off steam, or they will not rise nicely. Iced goods, tarts, and puffs which have been washed over with powdered sugar and egg must have a cooler oven, or the icing is liable to catch. To determine the heat of the oven it has always been the practice to open the door, and *then* it required an experienced man to tell exactly the degree of heat.

The recent invention of Messrs. Bailey & Co., of Salford, called the Pyrometer, or Baker's Guide, has rendered the opening of doors no longer needful for this purpose, as by simply looking to the dial the state of the oven can be told in an instant.

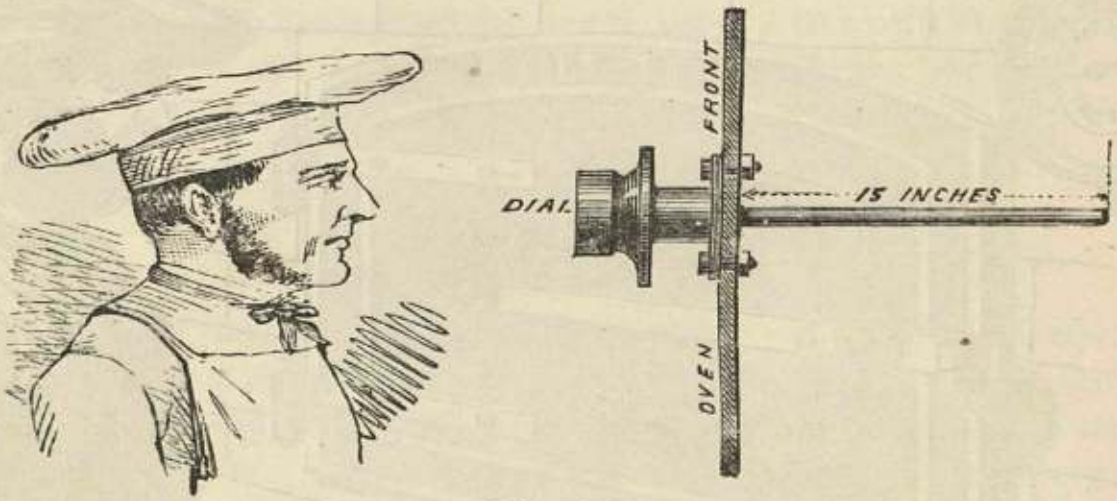


Fig. 13.

Nearly all the large bakers have now got them fitted to their ovens, and they find THEM not only useful as an indicator, but a great saver of fuel. There is no excuse for pastry being underdone or burnt where it is in use, besides it allays mental excitement while the goods are undergoing the process of baking. Small makers, or those inexperienced would find it a useful tool, which can be affixed to any oven at a small cost, the price of the pyrometer being from £1 10s. to £2 10s., and may be had from the author or the makers.

ON MAKING PASTRY.

In mixing paste there is a difference of opinion between different makers as regards the exact proportions of ingredients for the different

articles, each in his turn considers his own proportions the proper recipe, and so far that may be right, at least as regards the taste of the customers his goods are prepared for.

Without prejudice, the author submits the following recipes with every confidence that each will be found to answer the purpose for which it is written. Of course the quality of pastry not only depends upon the recipes from which they are mixed, but also upon the materials which are used and the manner in which they are prepared.

The very best flour should be used, and the butter should be of good quality and "tough," should the butter be hard, it must be worked with the hands until pliable and of the same consistence as the "dough" before mixing with it. The paste should not be handled more than is necessary, nor rolled out oftener than three times. It is better if the dough can be mixed in a cool place on a marble slab. When mixed, always let it stand a short time before working up, sweep off the extra flour which hangs to the paste in folding in.

PUFF PASTE, No. 1.

In preparing this paste the best flour and good butter only should be used, take for example 3lbs. of flour and 3lbs. of butter, work the whole of the flour into ½lb. of the butter, use a little water and make a stiffish dough, roll it out, spread the remaining butter in small pieces over the sheet, fold it up and roll out again, repeat this process two or three times, stand it in a cool place; before using roll and fold up twice.

N.B.—A commoner paste may be made by using 1½lbs. of flour to every pound of butter.

PUFF PASTE, No. 2.

Take 3lbs. of best flour, 3lbs. of good butter, and the yolks of 9 eggs. Mix the whole of the flour with about 6ozs. of butter and make it into a paste, adding water enough to form a dough, after which roll it out and spread the remainder of the butter over the surface. Then fold it over and roll it out, refold it and roll out again three times; it is then ready to be cut into shapes.

N.B.—The foregoing recipes to be used for the various kinds of raised or light pastry.

SHORT PASTE FOR TARTS, ETC.

Rub well with the hand any quantity of flour and butter, in the proportion of 1lb. of flour to ½lb. of butter, when the butter crumbles into pieces, add a little cold water, and mix it into a moderate paste, rub it well with the hands on the slab until you have a smooth pliable paste; this paste is used for making covered tarts, raspberry tarts, fruit and other pies.

FRENCH OR SWISS PASTE.

Raspberry Sandwich.

This paste is made precisely the same as puff paste, the difference is simply in the cutting and baking. Take the paste and roll it out about half-an-inch thick, and cut it into strips about three inches long and half-an-inch wide; lay them on the baking plate with the cut side uppermost, place them about three inches apart. Bake in a moderately quick oven. While they are baking, instead of rising they will spread out like a fan; take them out and dust over them some fine powdered sugar; put them again in the oven one minute to melt the sugar, and they will be glazed. When done form a sandwich by spreading some raspberry jam between two pieces.

BANBURY PUFFS.

Roll out the puff paste and cut it the sizes required with a cake cutter, form an oval puff with the hand, put some meat in the middle, turn them over and lay them together, dust over them some powdered sugar, bake in a moderate oven. The meat for Banbury puffs is made according to requirements and ingredients at command; the following will make a mixture for this purpose; chop some apples, cut some candied peel fine, bruise some currants, crumble some stale sweet cake,

mix the whole with a little treacle or moist sugar, and shake some mixed spice over the lot.

THREE CORNERED PUFFS.

Roll out a thin sheet of paste and cut it with a cake docker, according to the size the puffs are to be, then put a tablespoonful of thin raspberry jam in the middle ; then turn up the sides in three places, forming a peak at the top, then turn them over, and place them on the board side by side, fitting in closely to each other, whisk the white of an egg and wash the puffs all over with it, laying it on with a brush, dredge them all over with powdered sugar, and just before putting them into the oven sprinkle them over with water.

A GOOD CHEAP CAKE.

Mix 3lbs. of flour, 1½lbs. of raisins, ½lb. of sugar, two eggs, ½lb. of butter, and two teaspoonsful of carbonate of soda, warm a quart of new milk and dissolve the soda in it, mix the whole together well and bake in a slow oven.

SEED CAKES.

Mix with 2lbs. of flour, 2lbs. of powdered loaf sugar, six good sized eggs, and a few carraway seeds, and mix the whole together for half-an-

hour, well grease your tins, put the mixture in, and bake in a moderate oven.

POUND CAKES.

One pound of fine powdered sugar, 1lb. of butter, beat the sugar and butter together in a copper for ten minutes, then add by degrees fifteen eggs, beating the batter all the time; then mix in 1¼lbs. of flour, ¾lb. of clean currants, and 3ozs. of candied peeel (cut up); put into tins and bake.

MADEIRA CAKES.

Take 1lb. of fine powdered sugar, 1lb. of butter, beat it together in a copper, add by degrees ten eggs, beating all the time, then stir in 1½lbs. of flour. Bake in hoops, cut up some long slices of citron peel and lay them on the tops and dust with fine powdered sugar.

SPONGE CAKES.

Whisk thirty eggs in a copper pan with 3lbs. of sugar, for nearly half-an-hour, then stir in gently 3lbs. of fine sifted flour; put them in moulds and bake in a moderate oven.

QUEEN CAKES.

Beat together 2lbs. of butter and 2lbs. of fine powdered sugar for ten minutes, then add by degrees fourteen eggs and 3lbs. of flour; put them in heart shaped tins, sprinkle a few currants on the top and bake.

POLKA CAKES.

Take 2lbs. of butter and 2lbs. of fine powdered sugar, beat them together as directed for pound cakes. and add twenty eggs; keep beating all the time; stir in gently 2½lbs, of flour, currants and lemon peel to taste; bake in hoops.

RATIFIA CAKES.

One pound of sweet almonds ground, ½lb. of bitter almonds ground, 3lbs. of powdered loaf sugar, and the whites of 24 eggs ; mix together. Make them into drops on wafer paper, and bake in a slow oven.

ROUT CAKES.

One pound of sweet almonds ground, 2lbs. powdered sugar, mix with the yolks of 12 eggs, and form a stiff paste, roll it out, and cut it into any fancy shapes, and bake in a moderate oven.

ECCLES CAKE.

Roll out a sheet of paste sufficiently large to cover the baking plate about a quarter of an inch thick, then roll out another sheet same size, but rather thicker ; spread on the first sheet some Banbury meat (see Banbury puffs), a quarter of an inch thick, then cover it with the second sheet, trim it, and mark the top sheet into squares, bake in a moderate oven ; when it is done dredge the top with powdered sugar.

SAUSAGE ROLLS.

Roll out some paste and cut into squares, lay some best sausage meat lengthways along the centre, fold over the paste, and form it like a long puff, wash over with yolk of egg, and bake in a moderate oven.

TO MAKE BUNS (Various).

Dissolve in one pint-and-a-half of milk 3ozs. of German yeast, then stir in 1oz. of brown sugar and a handful of flour ; let it stand to rise. Mix 1½lbs. of flour, ¾lbs. of brown sugar, and 9ozs. of butter together ; then put the sponge to it, and work it into a dough, it is then ready to be shaped into buns ; sufficient for about 60 buns.

BATH BUNS (No. 1).

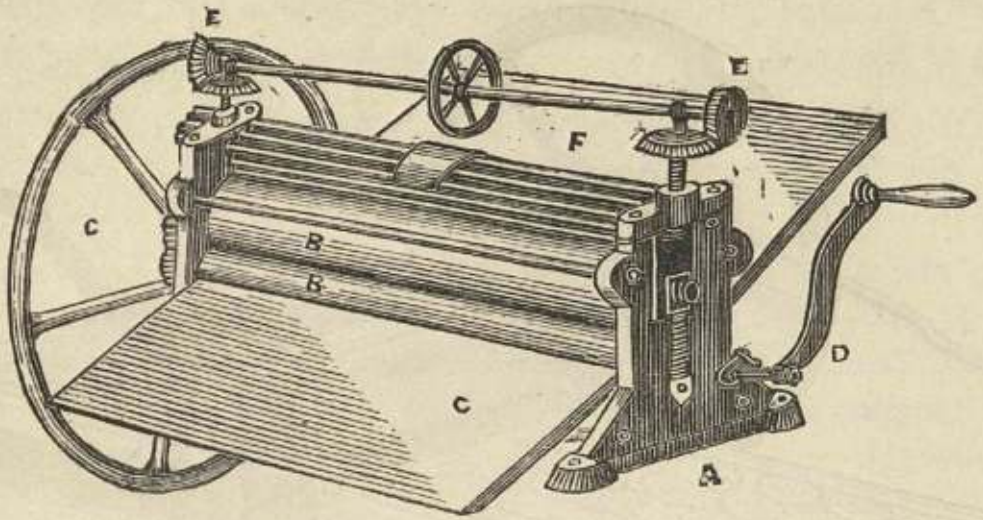
Mix 2lbs. of flour with the rinds of six lemons grated fine, 1lb. of butter melted in a breakfast cupful of cream (or new milk), a tablespoonful of yeast, and six eggs, add 3lbs. of powdered loaf sugar, mix well, let it stand to rise ; this mixture will be sufficient for 80 buns.

BATH BUNS (No. 2).

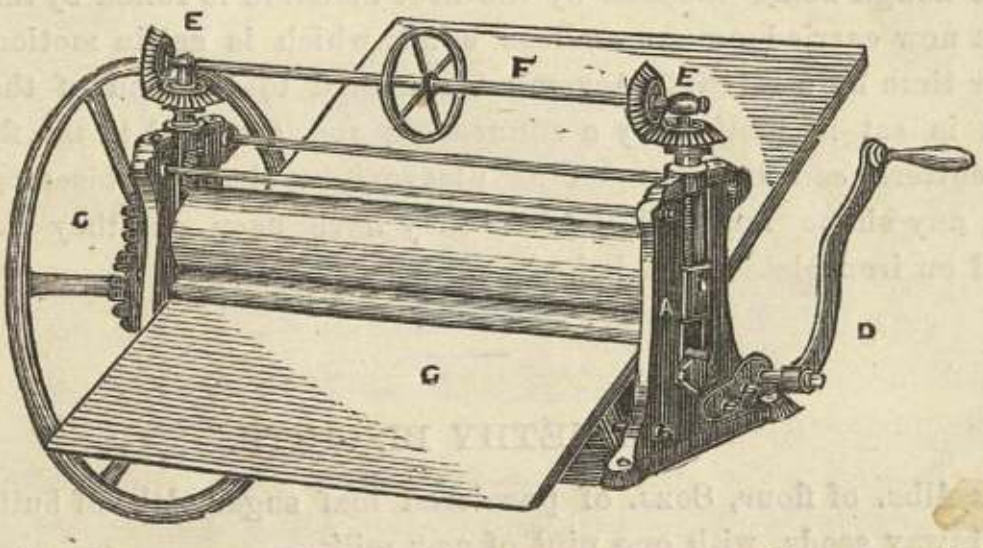
Mix 2ozs. of German yeast with one pint of milk and a handful of flour ; set it aside until it rises. Take 1lb. of flour, 6ozs. of butter, and eight ounces of powdered sugar, mix it together ; then add the sponge, and work it up to a dough ; this quantity is sufficient for 24 buns.

BISCUITS.

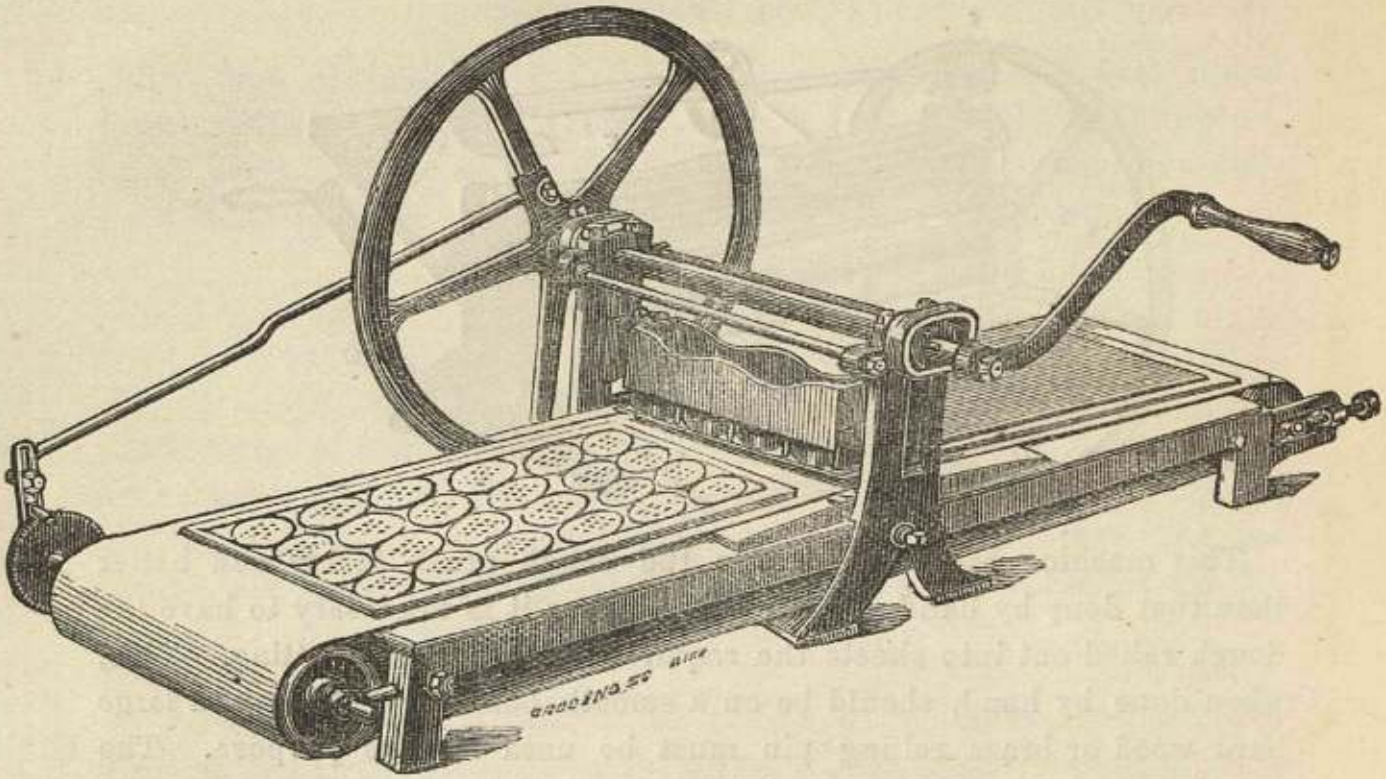
Biscuits are now made in so great a variety that to mention even the names of the different kinds would occupy more space than I can allot for this class of goods ; therefore I will give a selection of the principal sorts that are most in demand, with recipes and instructions. Biscuits may be divided into two heads, *hard and soft.* Biscuits are composed generally of flour, sugar, butter, milk, and water, with a little flavour. The quality of the biscuit depends upon the quantity of sugar, butter, and milk with which it is composed ; the common or *hard* biscuit is composed of water and flour only, while the better class of biscuits varies considerably as to the quantities of their component parts. To prepare a hard biscuit for the oven is certainly a slow and laborious task when done by hand or manual labour, but the mechanic has rendered it comparatively easy and very expeditious. After mixing the dough for the biscuit it requires to be broken, that is, *kneaded hard*, this is generally done with a long wooden lever, which is attached to the kneading board by a hook and staple, the dough is put under the lever, and is well pressed by the workman for nearly half-an-hour (according to quantity), to make the biscuit hard, otherwise when finished they would eat like dry crustry paste ; the process of kneading is now done by a machine, (see illustration), where quantities are required.



This machine breaks or kneads the dough much faster and better than that done by hand. After this process it is necessary to have the dough rolled out into sheets the required thickness for cutting. This, when done by hand, should be on a smooth board or slate slab, a large hard wood or brass rolling pin must be used for the purpose. The machine (see illustration), which is used by large manufacturers rolls



out the dough to the required thickness at once, giving it a nice level smooth surface. When the dough has been rolled out the thickness, the next job is to cut and prick the biscuits. This is done by tin cutters the required size and shape. Some cutters recently made are on an improved principle, which not only cut but prick at the same time, while the old-fasioned style was to cut them first and have them pricked afterwards. Then again the large houses have the advantage in the shape of machinery (see illustration).



The dough being kneaded by the first machine is rolled by the second and is now carried on an endless band, which is set in motion at the proper time by a ratchet movement attached to the end of the roller, which is set in motion by a connecting rod attached to the fly wheel. The cutters can be changed at pleasure, so that the biscuits can be make any shape required. After they have been cut they should be spread on iron plates, and baked.

ABERNETHY BISCUITS.

Mix 4lbs. of flour, 8ozs. of powdered loaf sugar, ½lb. of butter, ¼oz. of carraway seeds, with one pint of new milk.

NURSERY BISCUITS.

To one pint of warm milk put 2lbs. of flour, and set a sponge with brewer's yeast, when ready for working add another pint of warm milk, now work in 2lbs. more of flour, with 2ozs. of powdered sugar and 6ozs. of butter ; make the whole into a dough rather stiffer than for buns, prove

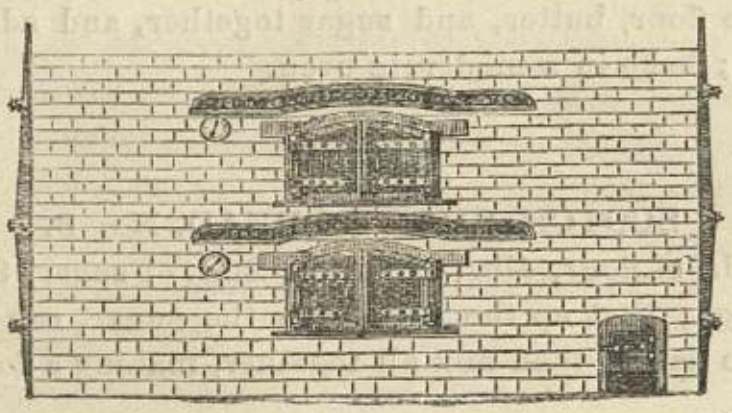
the dough and make them into cakes or biscuits, bake in a slow oven until a delicate brown, when they should be brought forward to crisp.

BUTTER BISCUITS.

Dilute about three pints of water with as much yeast as will give it a slight taste ; strain it, and mix with it 8lbs. of flour, 1½lbs. of butter, make it into a dough and set it to prove, after which knead it well and roll it out about an eighth of an inch in thickness, cut out your biscuits and bake in a hot oven.

PIC-NIC BISCUITS.

Use 3lbs. of flour, 6ozs. of butter, and 10ozs. of sugar with three drachms of carbonate of soda ; mix them well together and form it into a stiff dough with sufficient milk for the purpose ; break, roll out, and cut ; bake in a moderate oven.



ROUTE BISCUITS.

To 4lbs. of flour, 8ozs. of butter, 1½lbs. of powdered loaf sugar, 2ozs. of ground bitter almonds, a little carbonate of soda, and add sufficient milk to make a dough ; mix the whole together, roll out, and cut them into fancy shapes ; bake in a moderate oven until they are a nice pale brown, bring them forward to the mouth of the oven to dry and crisp.

SCOTCH PASTRY.

For the following recipes I am indebted to Mr. John Strachan, Pastry Cook and Confectioner, 73, Church Street, Inverness; who guarantees each of them genuine, having worked from them for thirty years at his address.

SCOTCH SHORT BREAD, No. 1.

Eight pounds of flour, 2lbs. of butter, 2lbs. of lard, 2lbs. of sugar, 1oz. volatile salts, four drops of oil of cinnamon, two gills of water; rub the flour, butter, and lard together, then add the sugar and oil of cinnamon, and make a dough; bake in round frames. Sold in cakes from one penny upwards.

SCOTCH SHORT BREAD, No. 2.

Eight pounds of flour, 4lbs. of butter, 2lbs. of sugar, and one gill of water; rub the flour, butter, and sugar together, and add the water to make a dough; bake in a moderate oven.

SCOTCH SHORT BREAD, No. 3.

Eight pounds of flour, 4lbs. of butter, 2lbs. of sugar, 8ozs. of ground rice, three eggs; beat up the eggs with the sugar, rub the flour and butter with the hands, then mix all together, making a dough.

SCOTCH SPONGE CAKES.

Twelve ounces of sugar, twelve eggs, 12ozs. of flour; whisk up the eggs and sugar light, then mix the flour; put in round or square tins, and bake.

SCOTCH SEED CAKES.

One pound of butter, 1lb. of sugar, 1½lbs. of flour, twelve eggs, 1½lbs.

of orange peel ; beat the butter and sugar to a cream, then add the eggs three at a time, then put in the flour with ½oz. of carraway seeds ; bake in round hoops.

SCOTCH PLUM CAKES, No. 1.

One pound of butter, 1lb. of sugar, ten eggs, ½lb. of currants, ½lb. of candied peel, 2ozs. of almonds, 18ozs. of flour ; made the same as seed cakes.

SCOTCH PLUM CAKES, No. 2 (Cheap).

Six pounds of flour, 1½lbs. of lard, 1½lbs. of sugar, 2ozs. of carbonate of soda, 2ozs. of volatile salts, 1½ozs. of tartaric acid, 5lbs. of currants, carraway seeds ; mix with butter milk, spread out on buttered tins. Sold at sixpence per pound.

SCOTCH SODA SCONCES.

Four pounds of flour, 1oz. of carbonate of soda, 2ozs. of cream of tartar ; mix these ingredients by sifting them through the flour sieve three times, then rub 8ozs. of butter with the mixture ; make a dough with butter milk, adding 8ozs. of sugar ; form them into round two-penny cakes and bake ; these cakes are afterwards cut into four pieces, selling at a half-penny each.

LOCH KATHERINE CAKES (Scotch).

Four pounds of flour, ½lb. of lard, 1lb. of sugar, 6ozs. of currants, 1oz. of carbonate of soda, 1½ozs. of cream of tartar ; make a dough with butter milk, flavour with essence of lemon, spread on buttered tins and bake. Sold at one penny each.

SCOTCH CREAM CAKES.

Two pounds of flour, 2½ozs. of lard, 10ozs. of sugar, ½oz. of volatile

salts, two eggs ; form a dough with butter milk, flavour with essence of lemon.

INVERNESS CAKES.

Four pounds of flour, 2ozs. of lard, 2lbs. of sugar, 2ozs. of volatile salts, three eggs ; mix with butter milk, cut with small cutter, loaf sugar on top. Sold at four a penny.

PERKINS' BISCUITS (Scotch).

One-and-a-half pounds of flour, 1½lbs of oatmeal, 8ozs. of lard, 9ozs. of sugar, 2ozs. carbonate of soda, 2ozs. mixed spices, 2lbs. of treacle, one gill new milk ; washed with eggs, almonds on top ; sold at four ounces a penny.

PARIS BUNS (Scotch).

Four pounds of flour, 1lb. of lard, 2lbs. of sugar, four eggs, 1oz. carbonate of soda, ½oz. tartaric acid, mix the soda and acid together, add sugar, &c., butter milk to make dough, wash with eggs, rough pounded loaf sugar on top, baked on buttered tins in steady oven ; sold at three a penny.

GARIBALDA SCONES (Scotch).

Two pounds of flour, 5ozs. lard, 8ozs. of sugar, 1oz. cream of tartar, ½oz. carbonate of soda, pass the flour, soda, and cream of tartar through the sieve, add the other ingredients, and make dough with butter milk; sold at four ounces for one penny.

SULTANA CAKES (Scotch).

Four ounces butter, five eggs, 6ozs. sugar, 1lb. flour, 14ozs. sultana raisins, a pinch of volatile salts ; bake in hoops, papered.

KING'S BISCUITS (Scotch).

One pound flour, 1lb. butter, 1lb. sugar, six eggs, drop on buttered tins, put ground sugar on top ; flavour with lemon.

GERMAN WIGS (Scotch).

One pound of flour, ½lb. sugar, 6ozs. butter, ½oz. volatile salts, dust sugar on top ; flavour lemon.

JUDGE'S BISCUITS (Scotch).

Twelve eggs, 2lbs. sugar, ½oz. volatile salts, 1lb. flour, and a few carraway seeds ; bake on buttered tins.

HONEY CAKES (Scotch).

One pound flour, 5ozs. butter, 6ozs. sugar, 1oz. almonds, ½oz. volatile salts.

BRIGHTON BISCUITS (Scotch).

Rub ½lb. butter, ½lb. flour, ½lb. powdered sugar, ½oz. volatile salts, two drops lemon, three eggs, roll out and put cut almonds and sugar on the top.

LEMON BISCUITS.

Half pound flour, 4ozs. butter, ½lb. sugar, ¼oz. volatile salts ; flavour with essence of lemon, and cut.

INDIAN GINGER BREAD (Scotch).

Fourteen pounds golden syrup or treacle, 4lbs. moist sugar, 10ozs. pearlash, 10ozs. ground alum, 7lbs. oatmeal, nine gills of water ; put

the pearlash with the water, and let it stand one night to dissolve, mix the sugar and alum together, then mix in the oatmeal, afterwards add syrup or treacle to set sponge ; take fine flour to make dough ; the third day this ginger bread stands the weather ; spice, peel, or almonds may be added to taste.

BRANDY WAFERS (Scotch).

Half pound flour, 14ozs. sugar, 8ozs. butter, 1oz. ground ginger ; buttered tins.

COMMON GINGER BREAD (Scotch).

Twenty-one pounds flour, 12ozs. carbonate of soda, 6ozs. of alum, 14lbs. treacle, 1½ pints of water ; sift the flour and soda together through a fine sieve, boil the alum and water. Mix the whole together and make a dough. Bake in large or small cakes ; add spices, seeds, or peel ; sold at sixpence per pound.

BROWN BISCUITS (Scotch).

Eight pounds of flour, 2lbs. of lard, 1½lbs. of sugar, 2ozs. of carbonate of soda, 1oz. tartaric acid ; mix with butter milk to make dough.

PRINCE'S BISCUITS (Scotch).

Two pounds of flour, 6ozs. of sugar, 8ozs. of butter, three eggs, ½oz. of volatile salts ; flavour with lemon.

RICE CAKES.

One pound of flour, 1lb. of sugar, ½lb. of ground rice, fourteen eggs ; make the same as sponge cakes, but drop on buttered tins ; bake in cold oven.

GINGER BREAD LOAF (Scotch).

Twelve ounces of treacle, 1lb. of flour, 5ozs. of butter, 5ozs. of sugar, 3ozs. of peel, two eggs, ½oz. of soda; bake in buttered tins.

RICH GINGER BREAD (Scotch).

Thirteen pounds of ginger bread dough, 6ozs. of peel, ½lb. of butter, 2ozs. of ginger, 2ozs. of cinnamon, 2ozs. of cloves, 1oz. of carraway seeds; mix, and make in one shilling cakes.

BLANC MANGE.

Two quarts of milk, ½lb. of sugar, half-a-pint of rose water, 4ozs. of isinglass; mix; let it come to a boil, flavour with almond, allow it to stand till blood warm, and run in moulds.

ALMOND BLANC MANGE.

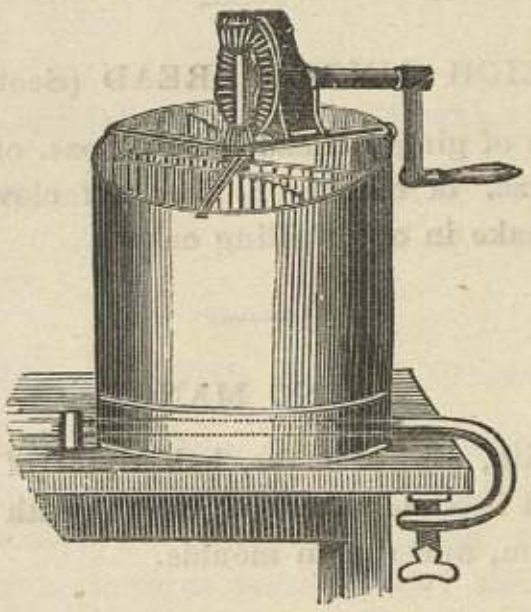
Four ounces of sweet almonds, ½oz. of bitter almonds; pound them in a mortar, mixing in a little orange-flower water to moisten; mix this with 1oz. of isinglass and a quart of fresh cream, put it on the fire until it boils, stirring all the time, strain through sieve, pour into mould and put them on ice. Blanc mange made according to this recipe may be flavoured with coffee, strawberries, pistachios, maraschino, &c.; if required in this case, use no bitter almonds; blanch the almonds before pounding.

CHARLOTTE RUSSE.

Half-a-pint of sweet cream, one gill of new milk, one glass of Madeira wine, ½oz. of Swinborne's isinglass, six eggs; form a custard with the yolks of the eggs and the milk; sugar to taste; dissolve the isinglass in half-a-pint of water, and add it to the custard; put the whole on the fire until it gets thick and creamy, keep stirring and add the wine.

Whip the cream, sweeten it and mix it with the custard; pour the mixture into moulds previously lined with sponge cake, and set on ice.

N.B.—The custard must be allowed to cool before adding the whipped cream; any flavour preferred may be used in place of the Madeira wine.



EGG WHISK.

ICING FOR WEDDING CAKES.

Pound some best refined sugar very fine, and sift it through a lawn sieve, put any quantity into a clean earthen vessel, adding the whites of three eggs to every pound of sugar; then beat it well up with a wooden spoon to a moderate consistency; add a little lemon juice occasionally while beating; if the icing seems too thick, a little more egg may be added; the icing should be nice and light, and hang on the sides of the pan and spoon. When properly beaten, a pan of icing should occupy as much space again as it did at the commencement. The addition of the lemon juice is to prevent the icing scaling off the cake when cut.

HOW TO ICE A CAKE.

Put the cake to be iced on a flat dish a little smaller in diameter than the cake, pour the icing prepared as above on the cake and spread

it over the surface smoothly and thinly with a knife. When it is entirely covered give it a slight shake, which will make it smoother. To make thick icing it should be put on in layers, or if it is laid on thick the first time it will be thicker round the bottom and thin on top, however this much depends upon the consistency of the icing and the way in which it is prepared.

ORNAMENTING WEDDING CAKES.

It would be impossible to give distinct instructions for the working out of this process, as the manner in which the decoration is carried out will depend to a large extent upon the taste of the workman and the tools at his command; however, a few practical suggestions from the writer may assist the inexperienced. See that the icing is well beat up to a light consistency. The stars, flowers, leaves, borders, and different devices are formed on the cake after it has been iced all over as described above.

The decorating is done by means of small pipes or tubes, these are generally made with writing paper folded in the form of a cone, something like the small bags used by grocers for doing up small lots of tea and sugar. This tube is filled up with icing, the top or base of the cone is then turned in to prevent the escape of the icing from the top; the point is then cut off with a sharp knife or scissors to make a hole sufficiently large to form the icing on the cake. By pressing the sides of the cone together the icing is forced through this small hole in the form of a thread; this thread will be thick or thin according to the size of the hole which has been cut at the bottom of the cone. A few different shaped threads may be formed by shaping the small hole at the point of the cone with scissors.

Fruit baskets, Chinese temples, and other ornaments are formed in moulds, afterwards fastened to the cake in their proper places. To make these, brush over a coat of melted white wax over the moulds, then fill in the icing, which is formed on it like trellis work (allow the melted wax to cool before putting on the icing); when done, the icing easily comes off by simply warming the mould. It is as well to note that tin pipes are used for best work; these pipes, which are very cheap, are made to run different devices, which could not be done with

paper ones. They are very convenient to the workman, as they are always ready for use, having a bag fastened to them almost similiar to that used for dropping out macaroons, savoury biscuits, &c., only much smaller. These tubes are made to form stars, tapes, and other borderings of different sizes and shapes. They will be found much more convenient, better and cheaper to use than paper ones, as it saves all the time and trouble of making new ones, to say nothing of the waste of icing. These tools should be in the hands of a workman what the brush is to the artist, viz., a means of displaying genius and taste. Much more might be said in reference to decorating, such as colouring the icing, &c., but the fancy of the workman will be his best guide, and where it is possible to get a model to work from, my remarks will be all that is needed to imitate the original.

GELATINE ICING FOR CONFECTIONS OR CAKES.

Put into two tablespoonsful of hot water one scant tablespoonsful of gelatine; let it dissolve, then mix sufficient fine powdered sugar to make a stiff paste. Spread this icing over the cake with a knife smoothly, dip the knife occasionally in hot water during the operation. Icing made according to this recipe does not crack when dry.

BURNT SUGAR.

This being a favourite old-fashioned and useful colouring, the following recipe for burning sugar may not be out of place:—Put the sugar intended for the purpose (any sort) into a pan, just cover it with water, put it on the fire and let it boil until it turns dark brown, and emits puffs of smoke; remove it from the fire and add hot water until it is of the consistency of thin syrup, then bottle, cork, and put aside for use.

HOW TO REMOVE ACID FROM SUGAR.

It is very necessary to know how to abstract acid from sugar, as the siftings which are left from making acid drops, &c., would, when reboiled with other sugar and siftings, cause the boiling to burn and

prevent the boil from setting when poured out. To do this, put the goods from which you wish to abstract the acid into a pan with sufficient water to melt them, then add some whitening or powdered chalk or lime, put the whole on the fire and stir until it melts to a syrup, remove it from the fire and let it stand for half-an-hour, then strain it through flannel, taste to see that all the acid is removed, if not, repeat the process; this syrup may then be boiled for common drops, &c., but it is best to add a little fresh sugar in re-boiling.

TO MAKE GINGER BEER POWDERS.

Finely powdered sugar 10lbs., tartaric acid 2½lbs., carbonate of soda 2lbs. powdered ginger 2½ozs., essence of lemon ¼oz.; mix the whole together and pass twice through a fine sieve, it is then ready for sale usually done up in penny packets. Do not expose this powder to the air or it will lose its virtue.

TO MAKE SEIDLITZ POWDERS.

Mix 5ozs. of tartarised soda with 2ozs. of carbonate of soda; pass through a fine sieve two or three times, divide this quantity into twenty equal parts, and wrap each in blue paper; 1½ozs. of pulverised tartaric acid, and divide into twenty equal parts and wrap in white papers; these two packets are tied together and sold as one.

In using, dissolve the contents of the blue paper in a tumbler three parts full of water, add the contents of the white paper and stir this well, cause it to effervesce, when it must be drank immediately.

TO MAKE MILK OF ALMONDS.

Two ounces of sweet almonds, 3ozs. of bitter almonds, blanch them (see French almond rock) and beat them with 1½lbs. of sugar in a mortar adding by degrees one quart of water; beat until they come to the consistency of cream, then strain and flavour with orange-flower water.

LEMON SPONGE.

Put 1oz. of Swinborne's patent gelatine in a pint of water and let it soak for twenty minutes, then dissolve it over the fire ; add the rind of two lemons pared thin, ¾lb. of sugar, and the juice of three large lemons ; boil all together for two minutes, strain it, and let it remain till nearly cold ; beat up the whites of two eggs and add, whisking the whole together ten minutes, when it will be the consistency of a sponge, then put it lightly into a glass dish at once, leaving it lumpy in appearance.

SWEET CHOCOLATE PASTE.

Put in a clean pan 5lbs. of sugar with three pints of water, with one teaspoonful of cream of tartar ; boil until it reaches the degree thread, 230 by thermometer, then add 1lb. of malted chocolate paste and ½lb. of butter, then keep stirring until it reaches the degree of ball, which must be tried without the thermometer, on account of stirring (see degrees of sugar boiling) ; when the boil shows a soft ball, lift off the fire and pour in two tablespoonsful of the extract of Vanilla, and stir the lot until it gets quite stiff, then pour it on greased tins ; when cold it eats like cheese. This is a delicious sweet and sells well.

NOUGAT.

Take a few best sweet almonds and blanch them, then take some cream (see cream for chocolate creams), put the cream into a clean pan and melt over a slow fire, and add some Vanilla flavour and stir in a few almonds, remove from the fire and pour out on tins which have been previously oiled ; mark into small squares 1oz. each, which is afterwards broken off, put in a neat packet, and sold at one penny each.

N.B.—The almonds when blanched must be dried before put with the cream, but fine Jordour almonds may be added without being blanched.

VANILLA CREAM ALMONDS.

Roast any quantity of almonds until they assume a brown colour when broken, use some cream (see cream for chocolate creams), roll it out in a sheet a ¼in. thick, cut it into strips about 1in. wide, and wrap each almond separately and smoothly in this cream; stand them in the drying room or a warm place a few hours to harden, then crystalize them in syrup as directed for liqueurs.

ROSE CREAM ALMONDS.

Roast almonds as for the above, then take some cream, melt it (keep stirring all the time), colour it a nice pink, flavour with a few drops of otto of roses, pour the cream out and knead it until stiff enough to be rolled out; cover almonds as in last recipe, and crystalize in syrup.

CHOCOLATE CREAM ALMONDS.

These are made exactly as the two foregoing; when the cream has been melted, melt also some of Fry's malted chocolate paste, and mix sufficient with the cream to give it a dark brown colour, pour out on slab, when blood warm knead the whole up, roll out and envelop the roasted almonds as described for Vanilla cream almonds; when dry and set, crystalize in syrup. This process is very simple and may easily be accomplished by anyone, and the almonds done in this way are of the best quality and eat very rich; some practical confectioners adopt a different system, but the process is difficult to explain, and the writer can see no advantage in adopting it.

HOW TO DETECT ALUM IN TARTARIC ACID.

It is a very usual custom to adulterate tartaric acid with alum, which can hardly be detected by taste, although it renders the mixture unwholesome and reduces the strength of the acid and thereby injures the flavour of the sweets. To test the purity of acid, put some in a solution of water in a copper pan and make it hot, lift the pan off the fire and stand

it aside all night; pour it out in the morning carefully, and if it leaves the pan clean, it is pure; if small crystals adhere to the pan, you may know it contains alum, as alum has an affinity to adhere and crystalize on copper.

TO TEST THE OIL OF ANNISEED.

This important oil seems to tempt adulteration in the shape of sweet oil, pure oil of anniseed congeals at a temperature of 55 Fahr.; when sweet oil is present it will not congeal at this temperature, but to deceive on this point some chemists mix in a little spermaceti, which causes the whole to congeal together like genuine oil, this may be easily tested by getting a little pure spirits of wine, and add a little of the suspected oil of anniseed to it; if the oil is pure it will mix with the spirits directly; but, on the contrary, if spermaceti be present, it will fall to the bottom, not being soluble in spirits of wine (alcohol).

TO TEST ESSENCE OF LEMON.

This oil is more frequently adulterated than any of the others, and is more unpleasant and annoying to use when so adulterated. The writer has found it more frequently with turpentine or sweet oil than anything else; however, it is very easy to test this; simply dip a piece of paper into the essence and hold it by a fire, the turpentine will soon be discovered by the smell.

To try it for sweet oil dip in a piece of clean writing paper, and dry the paper in front of a fire, if the paper when dry is greasy it contains sweet or olive oil. The essence of lemon would leave no stain, as it is when pure and fresh a delicate if powerful flavour; the slightest quantity of adulteration spoils its effect.

THE PURITY OF CONFECTIONERY.

Sugar, the principal ingredient used in all kinds of sweets, has now become so cheap that confectionery made in any part of Great Britain may be considered comparatively pure, no doubt isolated cases may occur

where resort may have been made to increase the bulk by the substitution of something even cheaper than sugar, but happily these cases are few and far between. When the writer first entered the trade, and during his apprenticeship, things were different, sugar was much dearer, and the confectioner's knowledge of colours did not seem to be fully developed, and in many cases ingredients were used for this purpose, which to say the least of them they were not wholesome. Sugar was mixed with foreign matter, in the shape of an article called terra alba (ground Derby stone), and made into lozenges, and other matters all more or less deleterious were used to increase the bulk when manufactured, however, things are altered, sugar is cheap, vegetable colours are now specially manufactured for the trade, and generally speaking every article used in the manufacture of sweets, especially by large houses, is strictly wholesome. The very small amount to be gained by resort to adulteration of any kind is not now tempting enough to induce even those who otherwise might entertain the idea, besides the Adulteration Act of 1872 holds out a very wholesome dread to unprincipled manufacturers, as its penalties are very severe upon the adulterator. The offender renders himself liable on conviction for the first offence to a penalty of £50, and for the second goes to jail for six months with hard labour. These facts, coupled with the small amount of gain which would be derived from such practices, renders the buying and consuming of confectionery a matter of comparative safety. However, should the reader wish to test the purity of any article of confectionery, he may do so as follows :—Put a few of the sweets you wish to test into a glass vessel and pour over them some hot water, and let them stand twelve hours, after which time they, if pure, should be dissolved and amalgamated with the water, as sugar is perfectly soluble in water ; in the case of comfits and lozenges, a little wheaten flour or starch powder is necessary to be used in making therefore a small sediment would fall to the bottom ; this, if required, could be easily dried and examined with a microscope for foreign matter.

ESSENTIAL OILS AND EXTRACTS—HOW TO PREPARE THEM.

It is a well-known fact that oils are not soluble in water, and when

essential oils are added to drinks for the purpose of flavouring ; it forms a very greasy combination indeed, the drink being very irregular in its flavour, the oil generally preferring the uppermost part of the fluid ; extracts are therefore used for this purpose, as they are soluble. These extracts bought from different chemists are not of uniform quality, and are generally sold at a price equal to the value of the pure oil, of which they do not contain a tenth of the strength. These extracts are usually what is sold as essences, and are much stronger than those sold for domestic purposes. It would be a great save for those who use these extracts to prepare their own from the recipes as under, which they will find not only much cheaper, but a great deal better, and it is no trouble to make them. Buy the oils pure from a respectable house.

EXTRACT OF PEPPERMINT.

1oz. of Hotchkiss's oil of peppermint, half-pint pure spirits of wine; mix.

EXTRACT OF LEMON.

1oz. of oil of lemon, half-pint pure spirits of wine ; mix.

EXTRACT OF CLOVES.

Oil of cloves 2ozs., spirits of wine half-pint.

EXTRACT OF ANNISEED.

Oil of anniseed 1oz., spirits of wine one pint.

EXTRACT OF CINNAMON.

Oil of cinnamon 1oz., spirits of wine one pint.

EXTRACT OF BITTER ALMONDS.

Oil of bitter almonds 1oz. spirits of wine half pint.

EXTRACT OF SARSAPARILLA.

Sassafras 1oz., winter green 1oz., spirts of wine one pint; mix.

EXTRACT OF CAPSICUM.

Cayenne pepper, powdered, 4ozs., spirits of wine one pint; let it stand eight days, and then filter.

POISONOUS COLOURS.

I deem it necessary to add the following list of colours, and to state that they should under no circumstances be used, even in a stripe, as they are highly dangerous to health. I give this list that people may not get into trouble ignorantly or innocently.

I know sugar boilers who are very partial to use a little chrome yellow for stripes; it should not be done, as it is a deadly poison, although a nice colour.

YELLOW.—Chrome yellow, sulphate of arsenic, chromate of lead, iodine of lead, nor any other preparation of lead.

RED.—Vermillion, red lead, sulphate of mercury, oxide of lead, minium.

BLUE.—Calcium, blue verdita, carbonate of copper.

GREEN.—Emerald green, arsenite of copper, green verditer, carbonate of copper, Scheel's green, &c.

PLUM PUDDING (Imitation).

Although imitation plum puddings are by no means a novelty, they are still made in a great many places at Christmas time, and having received several requests from customers for the process, I do not think

it would be out of place to give here the instructions. Prepare 1lb. raisins, 1lb. of Sultanas, and 2lbs. of currants by washing them clean in cold water, afterwards drying them, cut into strips ½lb. of peel, and blanch and chop into small pieces 1lb. of almonds. Boil 7lbs. of brown sugar to the degree of ball; when ready lift the pan off the fire and grain it in the usual way, then add the ingredients as described above together with 1oz. of mixed spice, work in the whole well with the spatula. It may then be put into wet cloths and tied up as you would a Christmas pudding, tie them very tight and hang them up until set hard. The blanched almonds are used to represent suet, and should therefore be chopped up accordingly.

SUGAR CANDY.

Sugar candy is made in several different colours, the most popular sort being the brown, which is made from brown sugar, and sold wholesale at prices very little above that paid for sugar; but the pink, white, and yellow are not so common and generally command a remunerative figure. The process for making these candies is very simple and interesting. Copper pans are sold for this purpose, but for small quantities, any copper or metal pan will answer the purpose which has its sides a little wider at the top than bottom, so that the crystalized sugar may come out in shape. The pan must be perforated with small holes, so that a thread may be passed across on which the sugar by its own action crystalizes; the holes should be about three inches apart, and when the thread is passed through, the holes must be stopped up from the outsides with a thin coat of beeswax and resin to keep the syrup from running through.

When the pan has been got ready, boil sufficient sugar to fill it in the proportion of 7lbs. of sugar to two quarts of water until it reaches the degree of thread, or 230, then pour it into the pan and stand it in the drying-room for three or four days, then see if the crystals are heavy enough, if so pour off the superflous syrup and rinse the candy in lukewarm water and stand it in the drying-room till dry.

HOW TO PICKLE.

(For domestic use.)

Use only the best and strongest vinegar for this purpose. The vinegar and spices should not be boiled or a great part of the strength and flavour will be lost by evaporation. If the vegetables to be pickled be par-boiled in brine, they will be ready much quicker than if done by the old method of soaking them in cold brine for a week. When the vegetables have been par-boiled take them immediately out of the hot brine and allow them to get quite cold and dry before putting the liquor with them.

The following are the spices used for flavouring and preserving pickles:—Black pepper, long pepper, ginger, allspice, garlic, cloves, mace, mustard, horseradish, eschalots, and capsicum, with a portion of common salt.

To prepare a really good liquor for pickling, bruise in a mortar ½lb. of the above spices, and put it with two quarts of good strong vinegar into a stone jar, stop the jar with a good bung, then cover the bung and neck of jar with a bladder which has been soaked with pickle, and stand by the side of the fire for three or four days; shake it up two or three times a day. The jar being air-tight the full flavour is retained, as no evaporation can take place during the infusion.

If the articles intended for pickling are large, prick them with a fork or long needle and they will imbibe the full flavour of the pickle. The articles should be kept well covered with the liquor or they are liable to turn off bad. Glass bottles are best for pickling in as you can see whether they are all covered without opening them.

When all the pickles have been used, the liquor may be re-boiled with a little fresh spice and used again. Use a wooden spoon for taking them out of the bottles. Should more pickle be taken out than required, do not put what is left back in the bottle.

To get cauliflowers, onions, &c., a nice white colour, use distilled vinegar.

For a nice harmless green colour put either a small quantity of bi-carbonate of soda or liquid amonia with the water the vegetables are boiled in. Do not use brass or copper kettles for pickling. The vinegar produces a verdigris in them which is poisonous. The objection to iron

is that is apt to discolour the pickle. Glazed kettles are best, block tin will do.

TO PICKLE GHERKINS OR FRENCH BEANS.

French beans for pickling should be quite young, in fact not half grown, gherkins about the size of the finger, not smaller, or they have no flavour. Make a brine with salt and water, strong enough to float an egg, put the beans or gherkins into this brine for nearly a week, take them out and put them into a pan with equal quantities of vinegar and water, sufficient to float them in, put the pan on the fire until almost boiling (not quite), and keep them at this heat for a couple of hours, then let them cool in the liquor. When cold strain all the vinegar and water from them, put them into a jar and cover them with cold vinegar, flavoured with mace, pepper whole, allspice and bruised ginger; cork the jars close, and tie them over with bladder wetted with the pickle, and keep in a dry cool place.

N.B.—If a greener colour is required heat them again after they have cooled, before the cold vinegar is added, and let them cool as before.

ONIONS.

Small button onions are the best for pickling, get them as near a size as possible, put them in warm water before peeling, which will prevent them effecting the eyes so much while peeling them. When peeled put them in a strong brine of salt and water for twenty-four hours, then put them on the fire till they boil, strain the brine off, and dry the onions; put them into jars or bottles and cover them well with cold distilled vinegar, flavour with whole pepper, bruised ginger, and if preferred, a little mace, and sliced horseradish. Cork and tie over with bladder; see they are well covered with the vinegar.

CUCUMBERS.

Cucumbers for pickling should have come to maturity, but not overgrown. They may be treated in the same way as gherkins and French beans, or cut them in two, take out the seed and pare off the skin, and preserve as gherkins.

WALNUTS.

Prick a quantity of walnuts with a needle, wipe them, and put them into a jar or bottle, mixing with them the following spices:—Nutmeg, allspice, cloves, sliced ginger, and whole pepper, in the proportion of one ounce of each to every hundred walnuts, together with half-a-pint of mustard seed, four cloves of garlic, and a stick of horseradish; add two tablespoonsful of salt, and pour sufficient boiling vinegar over them to cover the whole; when cold cork and cover over with bladder, wetted with the liquor.

N.B.—The liquid from this pickle makes excellent catsup for flavouring steaks, chops, stews, &c.

CAULIFLOWER OR BROCOLI.

Select the firmest and whitest cauliflowers for this purpose. Break off the small branches and put them in a brine of salt and water for eight or ten days, then strain off the brine and put them in a saucepan with sufficient clean water to cover them, and boil them for ten minutes till tender, not too much, or they will not be crisp when finished. Strain off the water and spread them on a coarse cloth, and let them dry in the sun. When dry, put them in jars or bottles and cover with distilled white wine vinegar, which has been previously flavoured with long pepper, mace, white peppercorns, and a few grains of allspice. The vinegar should have been stood by a fire to extract the flavour from the spice, but not allowed to boil; it must be quite cold when poured over the cauliflower. The jars will require filling up occasionally with vinegar, as the vegetables absorb it.

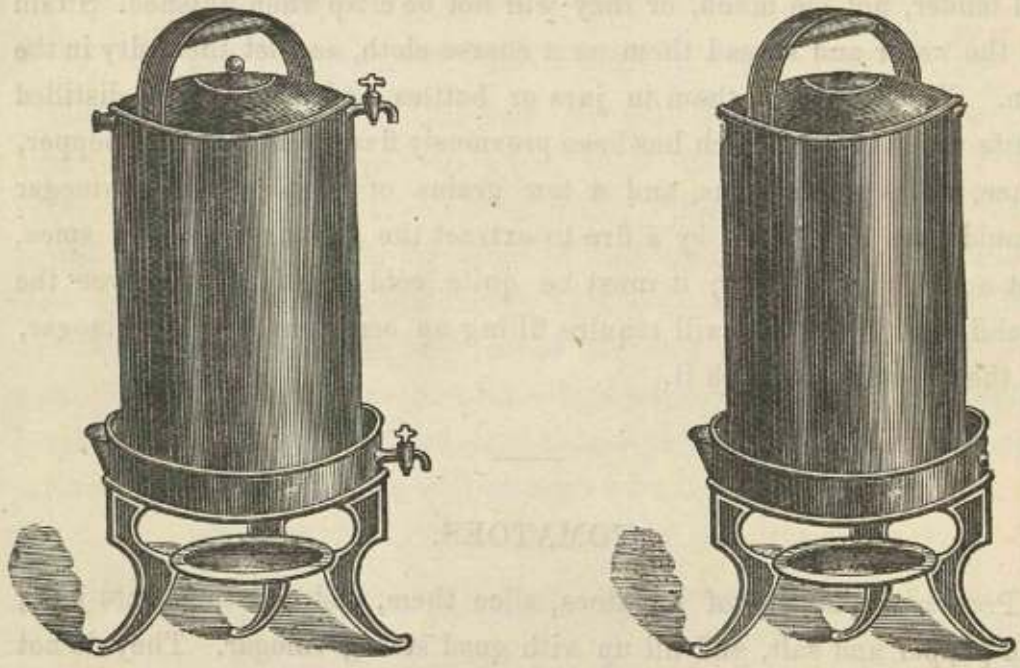
TOMATOES.

Peel any quantity of tomatoes, slice them, and put them into jars; add pepper and salt, and fill up with good strong vinegar. They do not require putting in brine.

PICALILLI.

This is a mixture of pickles of all kinds. Take from the brine, of a uniform size and of various colours, button onions, small bunches of cauliflower, small cucumbers, cut carrots, sliced turnips, French beans, ginger, mace, cayenne pods, long spice, strips of horseradish, &c.; put them in jars or bottles, packing them tastefully, and cover them with the following liquor: To each gallon of white wine vinegar, eight tablespoonsful of salt, eight tablespoonsful of mustard flour, four of ground ginger, two of turmeric, two of allspice, two of pepper, and boil the whole for one minute; mix the mustard and turmeric together with vinegar, before they are put into the liquor; when the liquor has boiled, pour it into a dish and cover it until cold, when it is ready for putting into the jars containing the pickles; when the pickles have been covered, cork, and tie over with bladder; let them stand from four to six months, when they will be excellent pickles.

THE METALLIC HOUSEKEEPER.



The foregoing illustrations represent a recent invention by Messrs. Biertumpfel & Son, and is well worthy of notice in this book, as it is not only useful but economical, in either summer or winter, in shop,

warehouse, kitchen, or sitting room; and it is surprising to note the amount of work this little wonder is capable of performing. It is convenient for shopkeepers dispensing hot beverages, as they can always have a supply of hot water as well as a genial temperature in their shop during the cold weather; at the same time a dinner may be cooked in the best style, as the internal arrangements are complete for that purpose, with five convenient moveable trays, tea kettle, saucepan, toast maker, &c. The Housekeeper is scientifically constructed to do its work with a very small amount of gas, which, taken on the average, is about the same quantity as consumed by an ordinary gas jet, about two or three feet per hour, when in actual work; or, in other words, an apartment may be kept warm for a day at the cost of one penny (during which period cooking may be done). There is no smell whatever from the gas; and meat, tarts, custards, &c., cooked by it are quite equal to anything baked in an oven. It is alike convenient in the nursery as it is in the sick chamber, and is valuable in many ways. It is portable, and can be placed where the warmth is most required, without soiling carpets or furniture; requiring no fixing and is ready at once. In appearance they are very neat; chocolate japanned, height 3ft. 3in., and occupy 18 inches floor space; price, from 27s. 6d. to 57s. 6d. See advertisement at the end.

PRICE LIST AND ADVERTISEMENTS.

In calling attention to the Price List and Advertisements which follow, I may be allowed simply to state that all Advertisements in this book eminate from the first houses in their several departments, and every reliance may be placed in the articles sold by them. I have been careful to avoid opening the pages of this book for publishing Advertisements in any way calculated to mislead the beginner, and on that consideration have declined to insert several. I do not think I need offer any apology for giving the Price Lists in detail, as I have no doubt they will be found valuable to many country and foreign subscribers. It is one thing to know what you require and quite another to know where to obtain it, and the market value of the commodity.

The prices quoted in my lists are for the best quality only; especially do these remarks apply to the fruit essences, as they are distilled from

the "fruit," the ordinary quality being much cheaper (about half). I have no wish to disguise the fact that all flavours, &c., sold by me are the manufacture of W. J. Bush & Co., and customers can obtain the same article direct at the same price as I quote. My price list for sweets is about the same as other houses, but it must be understood that to obtain confectionery at prices quoted, customers are expected to buy parcels of the value at least of £3 or £4. I submit the prices simply as a guide, and have no intention of puffing my goods or to p rejudice the customer in my favour; the question of carriage is a c onsideration, and where customers can suit themselves nearer home, there is a save. Machinery I can offer as low as any machine maker, and when favoured with orders I guarantee every machine to work satisfactorily, as I try them all before sending them off.

E. SKUSE,

PRACTICAL CONFECTIONER,

30, PRAED STREET, LONDON, W.

PRICE LIST of Essential Oils, Fruit Essences, Drugs, Chemicals, and Colours, used by Confectioners, &c.

This List is subject to Market fluctuations. Terms—Nett Cash.
All Packages and Bottles Charged.

Post Office Orders payable at Southwick Street, London, W., Cheques crossed "City Bank," to E. SKUSE.

ESSENTIAL OILS.

Almonds	per lb.	38/
ex-Prussic Acid	,,	38/
Anniseed	,,	9/
Bergamot	,,	8/
,, Super	,,	9/ 10/6
,, ,, Extra	,,	12/6
Carraway, English	,,	8/
,, Foreign	,,	5/ 7/6
Cassia	,,	4/3
Cinnamon, heavy	per oz.	5/ 6/6
,, light	,,	3/
,, leaf	per lb.	6/
Cloves	,,	8/9
Citron	,,	15/
Citronelle	per oz.	/4
Geranium, Indian	,,	/4½
,, Turkish	,,	1/ 1/6
,, French	,,	3/6
,, Spanish	,,	4/6
Lavender, Mitcham	per lb.	126/
,, Foreign	,,	3/6 4/9
,, ,, Super	,,	6/ 8/6 10/
,, ,, Peculiar	,,	16/
Limes (Citrus Limetta)	,,	7/6
Linalœ	,,	24/
Lemons	,,	7/6 9/
,, Super ... ... Case /3 less	,,	10/6
,, Selected from Extra Super ...	,,	12/

ESSENTIAL OILS (Continued).

Nutmegs, English	... ...	per oz.	/9 /5 Expd.
Orange, Super Foreign	... ...	per lb.	11/
,, Bitter . .	Jars /6 less	,,	17/
Orris Root, Liquid and Concrete	... ...	per oz.	20/ 75/
Otto Roses ...	... ...	,,	16/ 20/
,, Virgin ...	.. ...	,,	24/6 28/
,, Artificial	... ...	,,	5/6
Peppermint, Mitcham	... ...	per lb.	34/ 53/
,, English	... ...	,,	33/
,, Hotckiss's L.B.	... ...	,,	14/6
,, ,, H.G.	... ...	,,	15/
,, W.J.B. The Finest Oil Imported in Winch. qts.			13/6
,, Hale & Parshall's	... ...	,,	13/6
,, Canister	... ...	,,	10/
Pimento ...	... ...	per lb.	18/
Compound Scent, 1st quality	... ...	,,	12/
,, ,, 2nd ,,	... ...	,,	8/6
,, ,, 3rd ,,	... ...	,,	6/
Circassian Essence (For Hair Oil)	...	,,	5/
Verbena ...	... ...	,,	/4

NEW ESSENTIAL OILS.

(Invented by W. J. Bush & Co.)

Ol. Dipteritis, Tonquin	... ...	per lb.	9/ 10/
,, Syringæ, Lilac	... ...	,,	8/
,, Pelargonii Ang.. English Garden Geranium	...	per oz.	4/
,, Almonds, Artificial	... ...	per lb.	8/
,, Wintergreen, Artificial	.. ...	,,	12/

These Oils are very powerful, lasting, and of rich fragrance.

FRUIT ESSENCES FOR CONFECTIONERY, LIQUEURS, &c.

Apricot, Concentrated Quality	... ...	per lb.	7/
Banana ..	... ...	,,	7/
Barberry ...	... ...	,,	7/
Blackberry ...	... ...	,,	7/
Cachou (Aromatic)	...	,,	22/
Cherry, 1st quality	... ...	,,	12/
,, 2nd ,, ...	... ...	,,	7/
,, Blackheart	... ...	,,	11/
Chocolate ...	... ...	,,	7/
Citron ...	... ...	,,	7/
Cocoa-nut ...	... ...	,,	7/
Coltsfoot ...	... ...	,,	6/
Cough Drop ...	... ...	,,	8/

PURE ESSENCES FOR CONFECTIONERY, &c. (Continued).

Cowslip	per lb.	8/
Currant, Black	,,	7/
,, Red and White	,,	7/
Cyder	,,	7/
Damson	,,	7/
Elderberries	,,	8/
Ginger Ale	,,	7/
Grape	,,	7/
Greengage	,,	7/
Hawthorn	,,	40/
Honey Drop	,,	7/
Horehound	,,	7/
Melons	,,	7/
Magnum Bonum	,,	10/
Marshmallow	,,	6/
Mulberry	,,	7/
Nectar	,,	7/
Paregoric	,,	5/
Peach	,,	7/
Pear, Jargonelle	,,	3/
Perry	,,	7/
Pine Apple	,,	7/
Pippin, Ribston	,,	7/
Plum, Orleans	,,	7/
Prunes	,,	9/
Quince	,,	7/
Raisin	,,	10/6
Raspberry	,,	7/
Spruce	,,	7/
Strawberry	,,	7/
Vanilla	,,	16/
Capsicine	,,	48/
Gingerine	,,	28/
Muskine	,,	54/
Musk	,,	20/
Violet	,,	14/
Essence of Brandy	,,	16/
,, Gin, London	,,	14/
,, Rum	,,	10/
,, Noyeau	,,	12/

The above may be had in ¼lb. bottles or larger quantities; bottles charged 2d. each.

QUINTESSENCES OF HERBS, SPICES, AND FRUITS.

For Domestic Purposes.

Almonds	... ...	per lb.	8/ in bulk
Lemon	... ...	,,	,,
Vanilla	... ...	,,	,,
Garlic	... ...	,,	,,
Shallots	... ...	,,	,,
Smoke, for Westphalia Hams	.. ...	,,	,,
Peach	... ...	,,	,,
Ratifa	... ...	,,	,,

The above assorted in ½oz., 1oz. & 2oz. Stoppered Bottles, 4/ 8/ 15/ per doz.; Plain Bottles, 3/6, 7/ 14/.

Magnesi Cito. Chelts., various	... ...	per doz.	5/6 8/ 10
Essence of Rennett	... ...	,,	8/
Essence of Coffee	... ...	,,	8/
Celery Salt	... ...	,,	4/ 8/

DRUGS AND CHEMICALS.

Acid, Acetic Fort	... ...	B.P. per lb.	/6
,, Benzoic	... ...	per oz.	1/4
,, Citric, Xtal. Perfectly dry and free from sulphuric acid	...	... per lb.	2/6
,, ,, Powder	...	... ,,	2/5
,, Salicylic	... ..	.. ,,	8/
,, Tartaric, Xtal. Special made	...	... ,,	1/8 1/8½
,, ,, Powder	...	... ,,	1/8½
,, ,, Xtal. Howard's	...	... ,,	1/10
,, ,, Powder ,,	...	... ,,	1/10
Alum	... ...	... ,,	/2
,, Powder	... ...	... ,,	/2
Armonia, Liquor Fort 880	...	... ,,	/7½
,, Carbonate	...	... ,,	/7½
,, ,, Powder	...	... ,,	/11
Arrowroot, Bermuda	...	... ,,	2/6
,, St. Vincent	...	... ,,	/9
,, Natal	...	... ,,	/11
Balsam Tolu	... ...	... ,,	4/
Borax	... ...	... ,,	/8
Camphor	... ...	... ,,	1/6
Castor Oil	.. ...	.. ,,	/5 /7 /9
Citrate of Magnesia	... ...	... ,,	1/ 1/3 1/7
Cochineal, S.G.	.. ...	.. ,,	2/10
,, B.G.	... ...	... ,,	2/10
Cod Liver Oil	.. ...	... per gall.	5/ 6/ 7/
Cream of Tartar	... ...	... per lb.	1/2½
Farina	... ...	.. ,,	/3

Gamboge	per lb.	4/3
Gelatine	,,	/9 /11 1/1 1/7
Glucose, Extra Quality	,,	/3
Glycerine	,,	/11 1/
Grape Sugar	,,	/3
Gum Arabic, Turkey Sorts	per cwt.	48/ 58/ 62/
,, ,, ,, Elect	per lb.	1/4
,, ,, Finest Elect	,,	1/8
,, ,, E.I.	per cwt.	42/ 60/ 70/
,, ,, Senegal	,,	84/
,, Tragacanth	per lb.	2/8 3/6 4/2
Honey, Chilian	8d. per lb., per cwt.	52/ 63/
Insect Powder	per lb.	2/3
Ipecacuanha, Powder	,,	7/
Jamaica Ginger, Powdered	,,	/8 1/3 1/8
Japan Wax	,,	/8
Liquorice Root Exot.	per cwt.	56/
,, ,, Ang.	,,	84/
,, Juice, in cases	per lb.	/7
,, ,, Block, in cases	per cwt.	52/
Magnesia Bicarb	per lb.	/8
Morphia Acet	per oz.	13/
,, Hydrochlor	,,	13/
Musk, in pods	,,	45/ 65/
,, Grain	,,	63/ 75/ 95/
Oil, Olive	per gall.	5/
,, ,, Super	,,	6/ 6/6
,, ,, Sublime	,,	7/3
,, ,, Nut (Foster's)	,,	5/6
Oil, Perfumed Hair	,,	5/6 6/
,, Slab Fine	,,	4/9
,, ,, Finest	,,	5/3
Orris Powder	,,	/9 1/
,, Root	,,	/5 /8
Otto Roses, Artificial (for Confectioners)	... per oz.	5/6
Pearlash	per lb.	/5
Saffron, Valentia	,,	50/ 56/
,, Alicant	,,	42/
Salts Tartar	,,	/6
Santonine	,,	32/
Seidlitz Powders	per doz. boxes	5/ 6/6
Senna	per lb.	/5 /7 /9
Sherbert (65/ 74/ cwt., in casks) ...	... ,,	/7 /9
Soda, Carb. Coml.	,,	/2
,, ,, W.J.B. Fully carbonated and free from lime	,,	/3
Soda	,,	1/1
Starch Powder	,,	/3
Tamarinds, in casks	,,	/3
Turkey Seeds	,,	/4

Turmeric	per lb.	/6	
Vanilloes	„	20/ 31/ 42/	
Colouring Red, for Jam	„	3/	
Capillaire	per doz. bottles	14/	Half-bottles 7/6 doz.
Cherry Syrup	„	„	
Orange	„	„	
Raspberry	„	„	
„ Vinegar	„	„	
Strawberry Syrup	„	„	
Lemon	„	„	
Black Currant	„	„	
Red	„	„	
Pine Apple	„	„	

The above in bulk 8/ gal.—hhds. 7/6.

Elder Flower Water	per lb.	/10
Orange	„	1/
Rose Water	„	1/2

Ditto in Half-Pint and Pint Bottles, 7/ 14/ dozeu.
In Carboys, 50lbs., /10 per lb.

WEST INDIA LIME JUICE.

Lime Juice, Crude (as imported) ...	per gall.	2/3	
„ Refined 3/9	„	3/3	hhd.
„ Cordial 3/9	„	3/3	„
„ Concentrated, for makng Aerated Lime Juiceade 8/	„	7/6	„
„ Bottles	per doz.	10/	
„ „ Half	„	7/	
„ Cordial, Quart	„	10/	
„ „ Pints	„	7/	

FRENCH CREAM.

GUM EXTRACT OR ALBUMEN COMPOUND

(By Royal Letters Patent)

For producing a permanent head of creamy richness upon Ginger Beer, Lemonade, Beers, Wines, &c., lb.		2/6
Ditto in Powder*		18/

* This being in a concentrated and solid form, is specially adapted for Exportation.

CAUTION.—*Proceedings will be takan against any infringement of this Patent.*

HARMLESS VEGETABLE COLOURS FOR CONFECTIONERY, &c.

We particularly invite attention to the following Colours, which are perfectly harmless, having been analyzed by the most eminent Chemists, are guaranteed to be free from Mineral, Organic, or Earthly Matters, and to contain no substance injurious to health, and may be used without danger.

THE LABORATORY,
LONDON HOSPITAL MEDICAL COLLEGE,
27th May, 1873.

To Messrs. W. J. BUSH & Co.

I have most carefully examined the several colours you forwarded to me. They consisted of two shades of *Yellow*, *Orange*, *Blue*, *Green*, *Red*, *Plum*, and a *Coffee Brown*.

I.—I examined them most carefully for *Metallic Salts*. I found no traces in any of them. The colours I consider are purely vegetable.

II.—I examined their physiological action. The results of my experiments prove that they are perfectly harmless given to animals in any quantity.

I am of opinion, therefore, that they may be used for colouring Sweetmeats and other confectionery with *perfect Safety*.

C. MEYMOTT TIDY,
M.A., M.B., F.C.S., C.M.,
Joint Lecturer in Chemistry, and Professor of Medical Jurisprudence at the London Hospital; Medical Officer of Health and Food Analyst for Islington, &c., &c.

Apricot Yellow, in paste	per lb.	1/9
Orange Red	,,	3/6
Orange Yellow	,,	2/6
Lemon Yellow	,,	3/
French Yellow	,,	2/6
Cherry Red	,,	4/
Orleans Plum	,,	3/9
Damson Blue	,,	3/6
Apple Green	,,	3/6
Coffee Brown	,,	3/
Chestnut Brown	,,	3/
Violet	,,	4/
Jetoline Black	,,	1/6

Colour Bottles charged /4 each.

The above Vegetable Colours are also prepared DRY in the form of CARMINE, which will keep good any length of time, and are especially adapted for exportation, viz.:—

Apricot Yellow Carmine	per lb.	5/
Orange Red	,,	9/6
,, Yellow	,,	7/6
Lemon Yellow	,,	9/
French Yellow	,,	8/

HARMLESS VEGETABLE COLOURS. &c. (Continued.)

Orleans Plum	per lb.		9/
Damson Blue	,,		9/6
Apple Green	,,		9/
Cherry Red	,,		12/
Coffee Brown	,,		8/
Chestnut Brown	,,		8/
Carmine, Persian	per oz.	4/	,, 54/
,, Finest, No. 10 ...	,,	3/	,, 43/
,, ,, ,, 20 ..	,,	2/6	,, 36/
,, ,, ,, 30 ...	,,	2/0	,, 28/
,, ,, ,, 40 ...	,,	1/9	,, 25/
In batches of 14lbs., 2/ per lb. less.			
Liquid Carmine	,,		6/
,, Cochineal	,,		5/
,, Imperial Blue	,,		5/
Saffron Colouring	,,		6/

SALTS.

(These Salts are the genuine product of the Natural Spring.)
For preparing Mineral Waters.

Calcis Chlor	per lb.	1/
Carlsbad	,,	2/10
Cheltenham	,,	3/
Seltzer	,,	2/6
Kissengen	,,	4/
Vichy	,,	4/6
Pullina	,,	3/6
Fachingen	,,	4/
Kreuznach	,,	3/6
Fredericksbhall	,,	2/10

ESSENTIAL OILS.

Lemon, ordy. quality	,,	7/6 9/
,, super ,, ...	,,	10/6
,, extra, made specially from selected fruit . .	,,	12/
Orange, super. quality	,,	9/6
,, extra quality	,,	11/

SOLUBLE ESSENCES.

For making Lemonade, Ginger Beer, and other beverages of the finest flavour, without rendering them turbid.

Sol. Ess. Lemon Con.	per lb.	7/
,, ,, Orange	,,	7/
,, ,, Jamaica Ginger	,,	4/6

SOLUBLE ESSENCES (Continued).

Sol. Ess. Ginger Ale	per lb.	7/
,, ,, Capsicine	,,	8/6
,, ,, Cloves	,,	7/
,, ,, Cinnamon	,,	7/
,, ,, Hops	,,	24/
,, ,, Peppermint	,,	7/
,, ,, Rose	,,	18/
,, ,, Anniseed	,,	6/

W. J. B. & Co. caution the trade against the so-called Soluble Essences now so frequently offered for sale, which are nothing more than mere Tinctures, and although offered at lower prices, cost five or six times as much in use, and impart a strong medicated flavour.

E. SKUSE,

MANUFACTURING CONFECTIONER,

30, *PRAED STREET, LONDON, W.*

PRICE LIST JULY, 1883.

(Subject to Market fluctuations).

PACKAGES DELIVERED FREE IN LONDON TO RAIL OR WHARF

Terms—Nett Cash.

BOILED SUGARS (Best quality).

	Per cwt. s.	d.
Acid, Pear, Pine Apple, Raspberry, Lemon, Greengage, Cherry, Orange, Cough, Cinnamon, Ginger, Peppermint, and a variety of other sorts		
In bottles ...	44	0
In 7lbs. tins ...	42	0

BOILED SUGARS (Second quality, assorted to order).

In bottles	38	0
In 7lb. tins	37	0
Mixed Fruit Drops, No. 1	35	0
,, ,, ,, No. 2	32	0
,, ,, ,, No. 3	30	0
Barley Sugar Bull's Eyes	32	0
Peppermint ,, ,,	32	0

BOILED SUGARS (Continued).

	Per cwt. s.	d.
Ripe Pears, Crystalized Tablets, Crystalized Fishes, Brandy Balls all sizes, Broken Sweets	32	0

2lb. bottles charged 2/3 per dozen,
4lb. ,, ,, 4/ ,,
7lb. tins charged 4d. each; the same allowed when returned in good condition.

CUSHIONS (¼d. each).

	per lb.	
Almond, Clove, Raspberry, Peppermint, Lemon, and Mixed Cushions ...	0	5

ROCKS.

Almond, French ...	0	6½
,, Brown ...	0	6

ROCKS (Continued).

	Per lb. s.	d.
Almond Hardbake ...	0	5
Eggs and Bacon ...	0	5
Peppermint, Black and White	0	5
,, all White ...	0	5
Pine Apple, Yellow and Pink	0	5
Cinnamon, Brown ...	0	5
Lemon, Yellow ...	0	5
Half-penny Sticks, assorted	0	5½
,, ,, Acid	0	5½
Farthing Sticks, assorted	0	5½
,, ,, Acid	0	5½
Half-penny Sticks, Barley Sugar	0	5½
Farthing ,, ,, ,,	0	5½

The above packed in 4 or 7lb. tins, charged 4d. each, or 4lb. bottles charged 7d. each; the same allowed when returned.

JUJUBES, GELATINE PASTILLES, &c., in 4 and 7lb. boxes.

	Per cwt.	
Lime Juice Tablets ...	42	0
French Olives ...	42	0
Fruit Pastilles ...	42	0
Rose and Lemon Pastilles	42	0
French Olive Pastilles ...	42	0
Harlequin Jelly ...	42	0
Honey Dates ...	42	0
,, Jubes ...	42	0
,, Pastilles ...	42	0
Persian Jubes ...	42	0
Raspberry ,, ...	42	0
Rose and Lemon Jelly ...	42	0
Strawberry Pastilles ...	46	0
Zulu Riband ...	46	0
Glycerine Jubes ...	46	0

GUM GOODS (Best quality). (In 7lb. Boxes).

	Per lb.	
Pink Jubes (Rose) ...	0	10
Pine ,, (Clear) ...	0	10
Liquorice (Black) ...	0	10
Fruit Pastilles (large) ...	0	9
,, ,, (small) ...	0	9
Crystalized Dates ...	0	9
Plain ,, ,, ...	0	9
Voice Jubes ...	0	10
Crystalized Diamond Gems	0	9

BOX GOODS (Lined and Laced.)

	Per cwt. s.	d.
Acidulated Jellies, 4lb. boxes	50	0
Apples ,, ,,	50	0
Breath Perfumers ...	52	0
Coltsfoot Cakes ...	50	0
Chest Warmers ...	50	0
Chocolate Pods ...	50	0
Cocoa Nut Gums ...	50	0
Coral Beads ...	46	0
Cyprus Fruits ...	46	0
Nonpariel Raspberries ...	46	0
Cocoa Nut Rolls ...	46	0
Roly Poly ...	46	0

CHOCOLATE CREAMS.

	Per lb.	
Chocolate Creams, 1 2 & 4lb. Boxes ...	0	10
,, Tablets ...	0	9½
,, Bars ...	0	9½
,, Drops ...	0	9
,, Drops (Nonpariel)	0	9
Sweets Chocolate, 4lb. Boxes	0	7
,, ,, ¼lb. Squares	0	7
Chocolate Sticks, ½d. ...	0	8
,, ,, 1d. ...	0	8
Broken Chocolate Cream	0	6

COMFITS AND PAN GOODS. (7lb. Parcels).

	Per cwt.	
Anniseed Balls (all sizes)	42	0
Bagatelle Balls ...	44	0
Billiard Balls ...	44	0
Bird's Eggs (all sizes & colours	44	0
Blood Allies ,, ,,	44	0
Ching Changs ...	44	0
Cocoatines ...	44	0
Lemontines ..	44	0
Rainbow Balls ...	44	0
Rifle Balls, 2, 4, 8, 16, & 32 to oz.	44	0
Nonpariels (hundred and thousands) ...	56	0
Pan Drops ...	48	0
Cinnamon Strings ...	50	0
Corrianders ...	46	0
Almonds, Pink & White	66	0
	Per lb.	
,, Valencia ...	1	0
,, Jordan ...	1	6
,, Burnt ...	0	10

MIXTURES.
(In 7lb. Boxes.)

	Per cwt. s.	d.
London Mixture, best quality, very pretty ...	52	0
London Mixture, No. 1. ...	46	0
,, ,, No. 2. ...	42	0
Grocer's ,, ...	38	0
Parisian ,, ...	44	0
Tom Thumb ...	44	0

COCOA NUT GOODS.
(In 4lb. and 7lb. Boxes.)

	Per. lb.
Cocoa Nut Ice ...	0 5½
,, Candy ...	0 5
,, Cream ...	0 6
,, Chips, Loose ...	0 9
,, ,, Block ...	0 9
,, Toffee ...	0 5

FONDANT CREAM.
(In 4lb. Boxes.)

Chocolate & Vanilla Fondants	0 8
Rose and Lemon ,,	0 8
Cocoa Nut ,,	0 8
Cream ,,	0 8
Variety of Fancy Shapes	0 8

SUGAR CANDY.
(In 7lb. Boxes.)

Brown Sugar Candy (Dutch)	0 4½
Pink and White ...	0 8
Pink, White, and Yellow	0 8

LIQUORICE.
(In 4lb. Boxes.)

Solazzi Juice ...	1 6
Corrigliano ...	1 1
Spanish Juice, ½d. Sticks	0 5½
,, ,, ¼d. ,, ...	0 6
Pontefract Cakes ...	0 7
,, Pipe ...	0 7

LOZENGES.
(In 7lb. Parcels.)

	Per cwt.
Peppermint Lozenges 1s. size	48 0
,, ,, 6d. size	48 0
,, ,, 4d. size	48 0

LOZENGES (Continued).

	Per cwt. s.	d.
Peppermint ,, Extra Strong	72	0
,, ,, Super	90	0
Musk Lozenges, any size	48	0
,, ,, Best, per lb. 1/4		
Rose ,, any size	48	0
,, ,, Best, per lb. 1/4		
Ginger, any size ...	48	0
,, best, per lb. 1/		
Cayenne ...	48	0
,, best per lb. 1/2		
Cough, No. 1 per lb. /11		
,, No. 2 ,, /7		
Jenny Lind ...	56	0
Brilliants ...	56	0
Conversation ...	48	0
,, Small ...	48	0
,, Hearts ...	48	0
,, Mixed ...	48	0
,, Rings ...	48	0
Fancy Cuts ...	48	0
Fruit Lozenges ...	52	0
,, Small ...	52	0
Cachous in 2lb. & 4lb. boxes, 1/6 per lb.		
Oriental Lozenges ...	66	0

SPECIALITIES.

	Per lb.
Butter Scotch, ½d. pieces	3 11
,, ¼d. ,,	3 11
Afghan Ramrods, ¼d. ,,	3 11
Cocoa Nut, Scotch ½d. ,,	3 11
Colo Gum, Squares ½d. ,,	3 11

The above are wrapped in tin foil.

FANCY GOODS.

The Novelties in this branch are ever changing; customers who leave the selection to me may rely on getting the newest and most popular sorts at lowest prices.

When ordering from the above List, customers will please understand the prices are low and nett, orders cannot be executed of less value than £2, at these prices; and must always be for parcels of 7lb. or boxes of 4lb., or one gross each, according how the article is packed. Customers must pay Carriage. No charge for Packages.

W. J. BUSH & CO.,

MANUFACTURERS OF

Harmless Vegetable Colours & Carmines,

IMPORTERS & DISTILLERS OF ESSENTIAL OILS,

AND

MANUFACTURERS OF FRUIT ESSENCES,

CITRATE OF MAGNESIA, &c.

SPECIALITIES FOR CONFECTIONERY,

ESSENTIAL OILS.

Oil of Almonds (purified, without Prussic Acid)
Oil of Anniseed
„ Lemons
„ Cloves
„ Peppermint
Compound Scents, and all other oils.

LIME JUICES.

Concentrated & Refined

FRUIT ESSENCES.

Essence of Cherry
„ Raspberry
„ Strawberry
„ Vanilla
„ Pear
„ Pineapple
„ Ginger, and all other essences.

COLOURS.

Apricot Yellow, Lemon Yellow, Cherry Red, and all other colours.

20 TO 23, ARTILLERY LANE,

BISHOPSGATE, LONDON.

JAMES H. WATHEW,

CONFECTIONERS' AND BISCUIT MAKERS'

MACHINIST,

288 & 289, SUMMER LANE, BIRMINGHAM.

3½ Inch. Frame, 12s. each. Rollers to fit Ditto, 28s. Per Pair.

3¼ and 4½ Machines are fitted with Standard Gauges, and will admit of any number of Rollers being fitted to one frame, which is so constructed that a pair of Rollers can be taken out and replaced in one minute. Parties after purchasing a machine can at any time have Rollers sent to them.

All kinds of Confectioners' and Biscuit Bakers' Machinery kept in Stock or made to order at the shortest notice. Oscillating and Revolving Steam Confecting Pans, Copper Boiling Pans (all sizes). Pouring Slabs, Hot Plates (all sizes). Jujube, Liquorice, Coltsfoot Rock, and Rout Machines. Icing Pipes, Whisks, Thermometers, Sugar Grinding Mills (all sizes), Biscuit Rolling, Breaking and Cutting Machines, with or without Tinning Apparatus (all sizes). Almond Blanching Machine, French Drop Machines, Ball Rolling Machines &c.

N.B.—Our celebrated Cocoa Nut Cutting and Shredding Machines (Price £1 5s.) will slice 100 Cocoa Nuts an Hour, Double Action, to Cut and Shred, £1 10s.

Illustrated Lists, of 200 Engravings, free on application.

BIERTUMPFEL & SON,

Patent Candle Machine Engineers, Mould Makers,

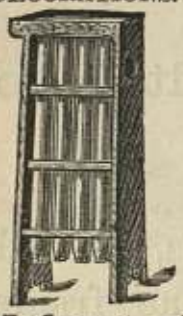
Pewterers and Special Makers of Pure Tin Candle Moulds,

Office and Show Rooms—138, ALBANY STREET, REGENT'S PARK,
LONDON, N.W.

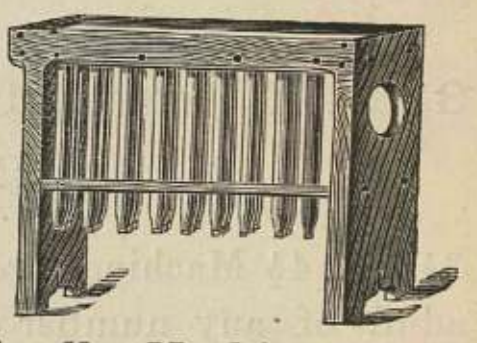
WORKS, 87 & 89, LITTLE ALBANY STREET. ESTABLISHED 1831.

ROYAL LETTERS PATENT.

FOR CATHEDRAL, CHURCH, ALTAR, AND DECORATIONS.



HAND FRAMES FOR ALL MATERIALS.



Makers of Patent Self-fitting End Candle Machines, and Machines for the Saving of Material, Time, and Wick.

EVERY INFORMATION AFFORDED TO INTENDING MAKERS IN THE COLONIES AND ABROAD. ALL REQUISITES SUPPLIED.
WORKMANSHIP GUARANTEED.

THE METALLIC HOUSEKEEPER.

(*See pages* 182 *&* 183.)

This useful invention affords the Comfort of Hot Water. Shop or Room Warmed. Facility to Cook without trouble, Dirt or Danger.

SEE AUTHOR'S REMARKS IN ABOVE PAGES.

No. 1, for Warming, 37s. 6d. No. 2, Cooking, 50s.
No. 2, for Cooking, and Copper Boiler for Hot Water, 57s. 6d.

Licensed Victuallers' Wine, Spirit, and Beer Measures, Pots, Mugs and Tankards, over 84 Designs. Electro Tankards. Brass and Pewter rimmed Measures of every kind.

All kinds of Pewter Work Done and Repaired.

OLD METAL BOUGHT or TAKEN in EXCHANGE.

BIERTUMPFEL & SON (Patentees),

ICE CREAM MAKING REQUISITES

OF EVERY DESCRIPTION.

The "Crown" Ice Cream Machines Working Pewter Freezers are the most durable and cheapest in the Market.

PRICES WITH EXTRA COVER OF PEWTER:

SINGLE.

	Single. s.	d.	Double. s.	d.
2 Pts.	27	6	45	0
3 ,,	32	6	60	0
4 ,,	40	0	70	0
5 ,,	45	0	80	0
6 ,,	50	0	90	0
4 Qts.	60	0	100	0
5 ,,	72	0	130	0
6 ,,	84	0	160	0
8 ,,	100	0	—	
10 ,,	120	0	—	

DOUBLE.

The FAMILY FREEZING MACHINE to Freeze and Mould in one Action with extra Cover, 50s. "RAPID" ICE CREAM MACHINES, all prices.

The whole of our Ice Freezing Pots from the smallest to the largest are designed after one style and are agreebly arranged in proportion to form an entire and elegant set, are made of the very best hard metal pewter with pure tin handles in sizes, as under :—

	s.	d.		s.	d.		s.	d.
2 Pints - - -	6	6	4 Quarts - -	18	6	12 Quarts - -	53	0
3 ,, - - -	8	6	5 ,, - -	23	0	14 ,, - -	60	0
4 ,, - - -	10	6	6 ,, - -	26	6	16 ,, - -	68	0
5 ,, - - -	12	6	8 ,, - -	39	6	18 ,, - -	75	0
6 ,, - - -	15	6	10 ,, - -	47	0	20 ,, - -	80	0

Ice Spaddles, No. 1 size, 21in. long, 3s.; No. 2 size, 24in. long, 3s. 6d.; No. 3 size, 30in. long, 4s. 3d.; No. 4 size, 36in. long, 5s. each.

Ice Moulds, Neapolitan Spoons and Moulds, Garnishing Fruit and Flower Moulds, Oak Tubs, Glasses Spoons, Advertising Tablets. Flavours, Saccharometers, Book on Ice Cream 2s. 6d., &c., &c., &c.

REPAIRS OF EVERY KIND CHEAP AND QUICK.

Especial attention to Export Orders. List Free, 46 cuts. Call and inspect and judge for yourself the largest and best Stock in the Trade.

Show Rooms and Offices, 138, Albany St., Regent's Park, N.W.

LONDON.—ESTABLISHED 1831.

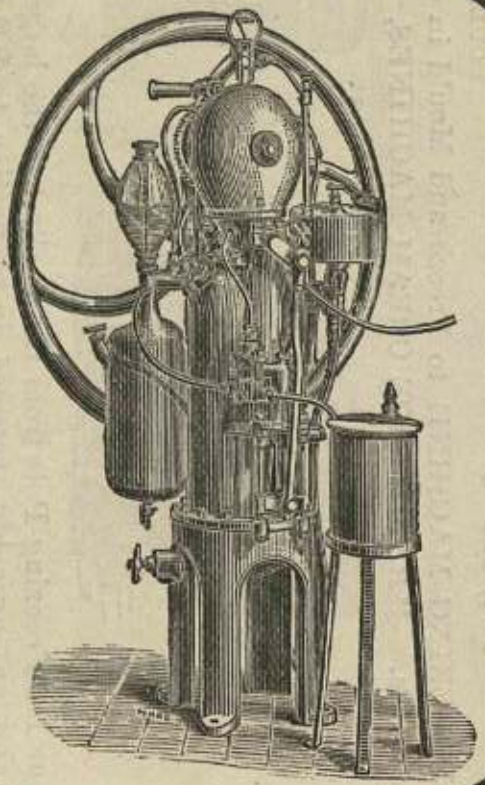
SODA WATER MACHINERY

MORDOLLOT'S PATENT

CONTINUOUS SYSTEM WITHOUT GASOMETER

DOUBLE GENERATORS FOR CARBONIC ACID GAS.

GOLD MEDAL PARIS 1878



THE CONFECTIONERS' MACHINE

NEW ILLUSTRATED CATALOGUE POST FREE ON APPLICATION.

BOOK OF INSTRUCTIONS & RECIPES ACCOMPANY EVERY MACHINE.

Gas & Steam Engines, Shafting & Boilers,

Bottles, Boxes, Syphons &c. Essences,

H. FAVARGER, 75 TURNMILL ST LONDON, E.C.

SYPHONS.

SHORT LEVER.

H. FAVARGER has much pleasure in announcing that, encouraged by the enormous demand last season for the well-known MONDOLLOT SYPHONS, he has made special arrangements for the prompt supply of these convenient vessels. Nevertheless, he would remind his customers, and also intending purchasers, that it is greatly to their advantage to order early, as then the necessary time can be given for an especially well finished article to be turned out.

The few following are the leading points of these Syphons:—

The Top is of pure tin, which is warranted to contain no trace of lead, copper or other injurious metal. It is carefully turned and polished.

The Spout is cast in one piece with the top, and not soldered on, so that it is almost impossible to break it off.

Its curved shape also facilitates the egress of water, thereby preventing to a great extent the loss of gas which occurs whenever the flow of aerated water is obstructed by sharp angles.

The Lever, usually a source of trouble from constant breakage, is specially made to resist heavy blows being of great thickness & strength at the point of contact with the head of the syphon.

The Pistons are of pure tin.

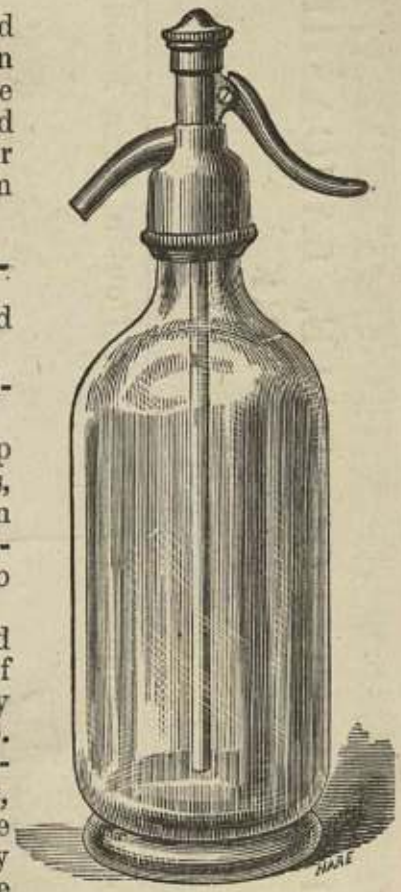
The Springs are of most elastic and durable metal.

The Washers are of the best vulcanised rubber.

The Milled Rings that fix the top on the bottle are made in two halves, so that in the event of a syyhon being broken, the top can be transferred by an unskilled hand to another bottle.

The Glass is of the purest and toughest that can be made, and is of extra weight so as to resist the heavy internal pressure it is subjected to.

The necessary tools and appliances for repairing the syphons, and all the separate parts, are supplied at moderate prices. Every syphon is tested to a high pressure before being sent out.



LONG LEVER.

PRICES—Short Lever Cylindrical White or Blue Glass, **26**/- per doz. Long Lever Cylindrical White or Blue Glase, **27**/- per doz. Special terms for large quantities. Name on head free. Silvering from 12s. per doz. Nickeling by new process, 4s. per dozen. For Samples and further particulars apply to

H. FAVARGER, 75, TURNMILL, STREET, LONDON.

WILLIAM BRIERLEY,

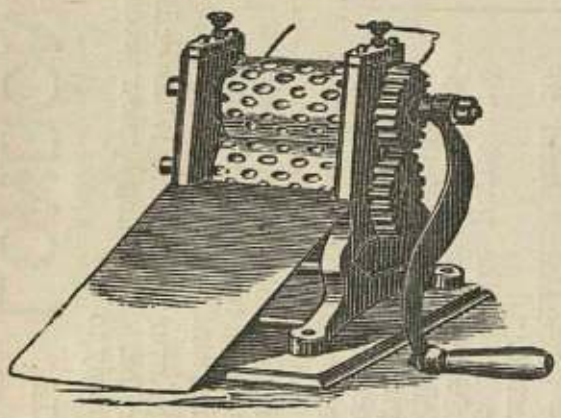
BOROUGH BRASS AND COPPER WORKS,

HILL STREET, ROCHDALE, LANCASHIRE.

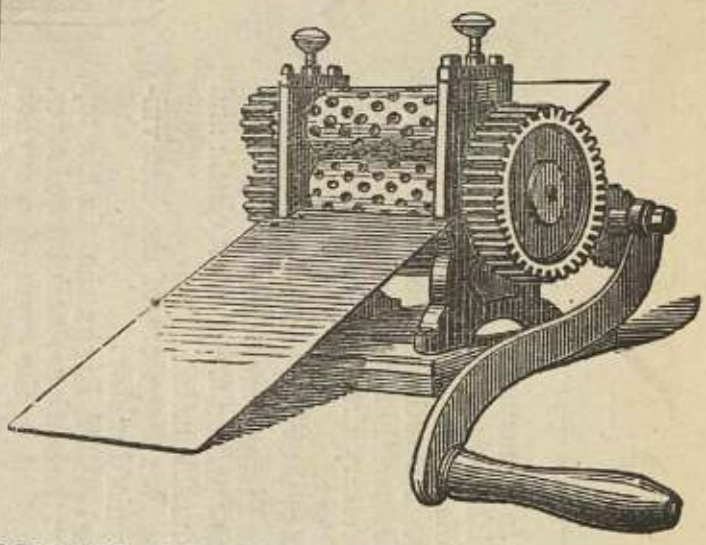
ESTABLISHED 1844.

Successor to LUKE COLLIER, Junr., also to Messrs. BROOKES, GREENWOOD & Co., Limited, Confectioners' and Sugar Boilers' Machinists.

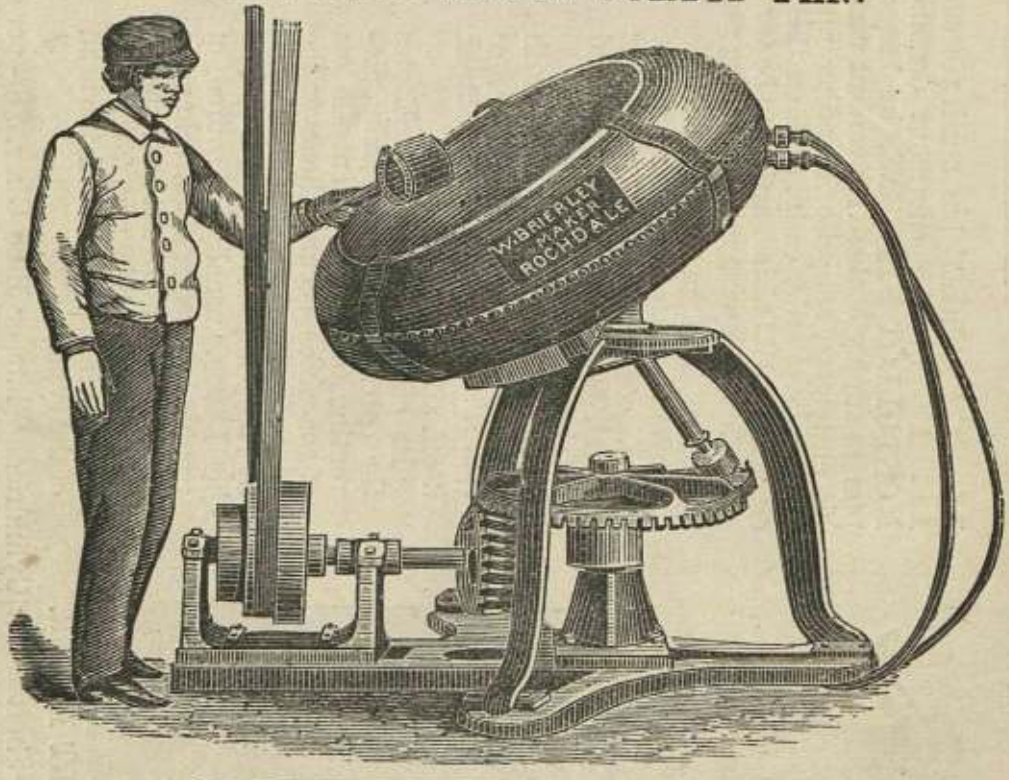
3¼ Single Gear Machine.



4¼ Double Gear Machine.



OSCILLATING STEAM COMFIT PAN.



Manufacturer of Improved Revolving Oscillating Steam Comfit Pans, Marmalade, Jujube and Coltsfoot Rock Machines, Double Cased Syrup and Jam Pans, Sugar Mills, and every description of Confectioners' Machines.

—: ILLUSTRATED CATALOGUES SENT ON APPLICATION :—

Ice Moulds

New Designs.

E. SKUSE,

30, PRAED STREET, LONDON, W.

PILLAR MOULDS (Ornamented on Plynths).

		Pint.	1½ Pints.	2 Pints.	3 Pints.
No. 3	Rose Top ...	7/	8/	9/	12/ each
No. 4	Fluted Top ..	7/	8/	9/	12/ ,,
No. 5	Rose Top ...	7/	8/	9/	12/ ,,
No. 6	Stop Top ...	6/6	7/6	8/6	11/6 ,,
No. 7	Chested Cupola Top	6/6	7/6	8/6	11/6 ,,
No. 33	Extra Ornamented	—	—	10/	12/ ,,
No. 34	Base in addition	—	—	10/	12/ ,,
No. 35	Top and Body	—	—	10/	12/ ,,

FLAT DESSERT MOULDS (Four Sizes).

No. 8, 9, 10, 15, 16		2/6	3/0	3/6	4/ ,,
No. 11	Wheatsheaf, 7½in. high, Elegant Mould	...		...	15/ ,,
No. 13	Basket of Fruits, splendid finish	..		...	17/ ,,
No. 19	Registered Pure Tin Fish Mould, 8½in. long			...	7/6 ,,

No. 20 Large Flat Basket Top, Plain Body, bold Plynth, 2½ Pints, 11/; 3 Pints, 12/6 3½ Pints, 14/ each.

No. 21 Medium Size Flat Basket, very pretty, would hold about 2 Pints, 10/6 each.

No. 22 Small Size Flat Basket Top Tea Mould, having same top as 21 and 22, but forming a Plynth.

No. 23 Small Pillar Mould, Star Top, 3/0 each.

No. 24 Do. With Plain Top, 2/9 each.

No. 25—NEAPOLITAN SOLID BRASS SPOONS of the most approved Shapes, so much used by Italians, Swiss, and French Confectioners.

No. 1, 13½in. long, 5/; No. 2, 16in. long, 5/6; No. 3, 16in. long, larger size, 6/; and No. 4, with broad bowl, 5in. across 13in. long, 5/6 each.

No. 26—NEAPOLITAN ICE MOULDS.

The above are made in various sizes to order. Our general selling size, always in stock (inside measure) is 8in. long, 3in wide, and 3in. deep, with six divisions, suitable for 12 large or 18 small, or more, "Neapolitan Ices," 10s. each, other sizes to order in sheet tin.

No. 27—ICE BRICK MOULDS.

This Mould is made of Pure Tin and well finished—a correct "Cucumber" in every way, and is certain to become a favourite Ice Mould. Price 10s. 6d. each. (12½in. long.)

No. 28—THE NEW REGISTERED "GRAPE MOULD,"

With ornamental body, without plynths, made in 3 sizes, as follows:—1½ pints, 8s. 9d. each; 2 Pints, 10s. each; and 2½ Pints, 11s. 6d. each.

No. 29—WITH PLYNTH, MADE IN 3 SIZES.

2½ Pints, at 12s. each; 3 Pints, 13s. each; 4 Pints, 15s. each. Class 1.—No. 310773. June 9th, 1877.

No. 30—ASPARAGUS MOULDS FOR ICE, &c.

8¼in. long—2s. 3d. each.

No. 31—SMALL FRUIT AND FANCY ICE GARNISHING MOULDS.

14s. per dozen.

No. 32—LARGE DITTO DITTO.

24s. per dozen. A large assortment of patterns.

No. 36—BEST PEWTER COUNTER TRAYS.

For Draining Glasses, &c.; made all sizes and shapes. Prices according to size. In ordering goods, please quote the number attached to the article desired.

NOTE.—In accordance with the long-established custom of the Trade, the quantity stamped inside each Ice Mould is the reputed measure, and not "imperial" measure.

THE NEW "CROWN" ICE CREAM MACHINES, WORKING PEWTER FREEZERS,

ARE THE MOST DURABLE & CHEAPEST IN THE MARKET.

SINGLE.

DOUBLE.

Without question the 'Crown,' single or double, are the best, cheapest and most efficient Machines that can be made; best, because the freezer is made of the BEST pewter; cheapest, because they are so strong and durable they will almost last a lifetime; most efficient, because they are made from a wholesome uncorrosive metal on a sound scientific principle, which cannot get out of order or get complicated.

Price, complete with strong polished Oak Tub, Tap, &c.

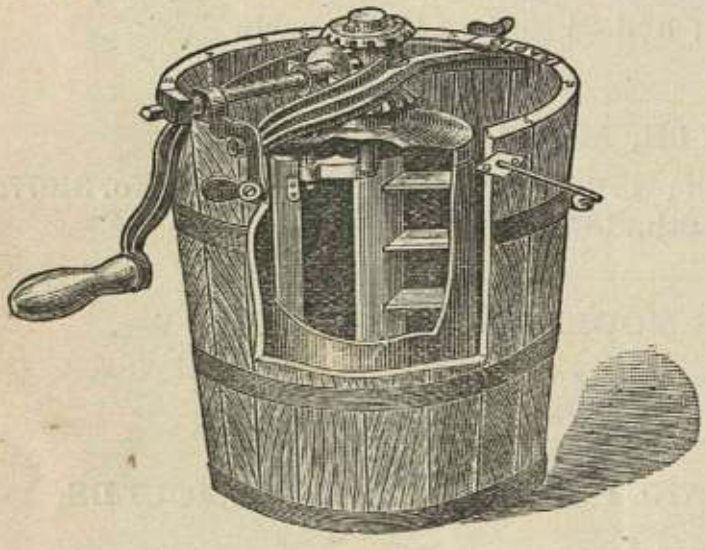
2-Pint size	-	27/6	3-Quart size	-	50/0	5-Quart size	-	72/0
4-Pint ,,	-	40/0	4-Quart ,,	-	60/0	6-Quart ,,	-	84/0

The new "Crown" Ice Cream Freezing Machines for working two pots at a time.

DOUBLE MACHINE FREEZING.

2-Pint size	-	45/0	4-Pint size	-	70/0	3-Quart size	-	90/0
3-Pint ,,	-	60/0	5-Pint ,,	-	80/0	4-Quart ,,	-	100/0

THE "RAPID" ICE CREAM FREEZING MACHINE.

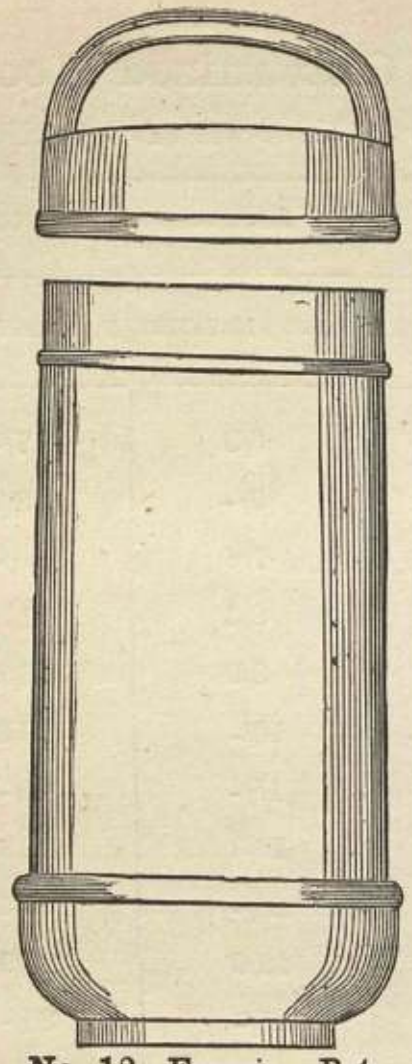


This Machine is of a very simplified construction, composed of Galvanized Iron fittings, and the Tubs are made of White Cedar. The Pots are made of Copper Tinned forming the body, and the top and bottom is made of Cast Iron Galvanized.

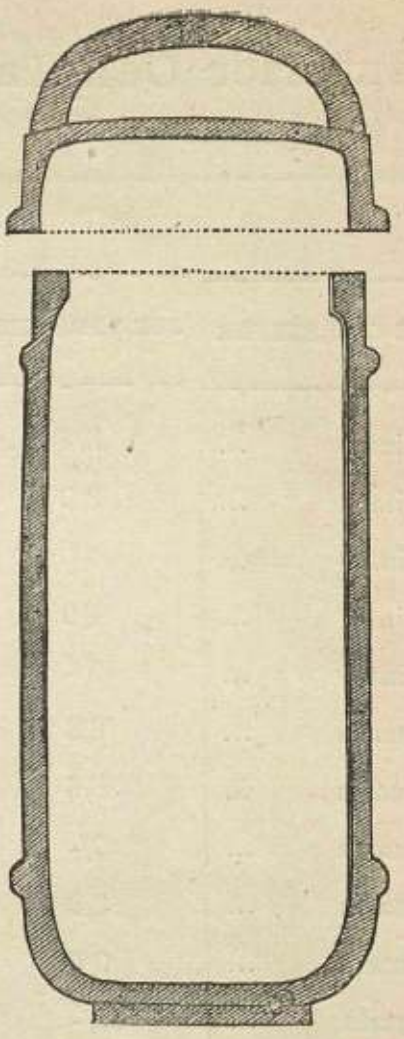
	Machine Complete.	Extra Pot and Tub.		Machine Complete.	Extra Pot and Tub.
2-Quart size - -	21/0	15/6	10-Quart size - -	80/0	55/0
3-Quart ,, - -	28/0	19/6	14-Quart ,, with flywheel	120/0	90/0
4-Quart ,, - -	35/0	25/0	18-Quart ,, ,,	150/0	110/0
6-Quart ,, - -	45/0	35/0	24-Quart ,, ,,	200/0	150/0
8-Quart ,, - -	60/0	45/0			

By having the extra Pot and Tub with the Machine, permits of it being removed from one to the other, and thus making as many kinds of ices as required without having to remove the ice, or to have a separate Machine for each. The ice may be served directly from the pots, the Machine part being removed.

ICE CREAM GLASSES for Counter use.—Tall shape ½d. and 1d. size, 3/- per dozen. Short shape, 1d., 2d. & 3d. size, 4/- per dozen. Goblet shape, 4d. and 6d. size, 4/6 per dozen. Common Ice Cream Spoons, 4d. and 7d. per dozen; Britannia Metal 1/3 per dozen; superior Nickle Silver, 2/0 per dozen. Ice Piercers 9d. & 1/0 each. Ice Hammers 1/3 each.



No. 12—Freezing Pot.



No. 12—Section

The Section view shows where the various parts are strengthened, which experience has proved most desirable. The whole of these Ice Freezing Pots, from the smallest to the largest, are designed after one style, and are agreeably arranged in proportion to form an entire and elegant set, and made of the very best Hard Metal Pewter, with Pure Tin Handles, in sizes as under :—

2-Pint Size	-	6/6 each	4-Quart Size	-	18/6 each	12-Quart Size	-	53/0 each
3-Pint ,,	-	8/6 ,,	5-Quart ,,	-	23/0 ,,	14-Quart ,,	-	60/0 ,,
4-Pint ,,	-	10/6 ,,	6-Quart ,,	-	26/6 ,,	16-Quart ,,	-	68/0 ,,
5-Pint ,,	-	12/6 ,,	8-Quart ,,	-	39/6 ,,	18-Quart ,,	-	75/0 ,,
6-Pint ,,	-	15/6 ,,	10-Quart ,,	-	47/0 ,,	20-Quart ,,	-	80/0 ,,

Pewter Spatulas, with strong Wooden Handles, Price 3/9.

ZINC FREEZERS.

Best make, superior finish.

4-Quart Size, 7/6; 6-Quart Size, 9/0; 8-Quart Size, 10/6 12-Quart Size, 14/6; 16-Quart Size, 18/6.

E. SKUSE,

30, PRAED STREET, LONDON, W.

Superior Oak Tubs with Galvanized Hoops.

ALL MADE OF WELL SEASONED OAK, & VERY STRONG.

SIZE OF FREEZER.	ROUND. FOR 1 FREEZER.	OVAL. FOR 2 FREEZERS.	ROUND. FOR 3 FREEZERS.	ROUND. FOR 4 FREEZERS.
2 Pints ...	3/6	6/3	6/3	7/-
3 Pints ...	3/9	7/-	7/-	8/3
4 Pints ...	4/6	8/-	7/6	10/-
5 Pints ...	4/9	8/9	8/3	11/3
6 Pints ...	5/-	10/-	8/9	13/9
4 Quarts ...	6/3	13/3	10/-	16/3
5 Quarts ...	6/6	16/3	15/-	20/-
6 Quarts ...	7/-	17/6	16/3	21/3
8 Quarts ...	8/3	18/9	20/-	27/6
10 Quarts ...	9/6	20/9	22/6	28/9
12 Quarts ...	12/-	22/6	25/-	30/-
14 Quarts ...	15/-	25/-	28/9	32/6
16 Quarts ...	16/3	27/6	30/-	33/9
18 Quarts ...	17/6	31/3	31/3	35/-
20 Quarts ...	18/9	35/-	32/6	37/6

Ice Glasses, &c., for Counter use, ½d. and 1d. Tall-Shape, 4s. per Dozen. 1d. 2d. and 3d. Short Shape, 5s. per Dozen 3d. 4d. and 6d. Goblet-Shape, 6s. per Dozen. Ice Plates, 3s. 3d. per Dozen.

Saccharometer, price 3s. 6d. each, a practical indicator correctly showing the exact amount of sweetness necessary for successful Ice Cream Making.

A SET OF 3 ZINC FREEZERS 21/- PER SET.

REPAIRS OF EVERY DESCRIPTION CHEAP & QUICKLY EXECUTED.

E. SKUSE,

30, *PRAED STREET, LONDON, W.*