Charles Tabley

1874

THE ART AND MYSTERY

OF MAKING

BRITISH WINES,

CIDER AND PERRY, CORDIALS AND LIQUEURS;

WITH DIRECTIONS FOR THE

Management of Foreign Wines and Spirituous Liquors;

AND RECIPES FOR THE

MANUFACTURE OF AGREEABLE AND WHOLESOME BEVERAGES, MEDICINAL WINES, AND THE DISTILLATION OF SIMPLE WATERS.

ALSO,

THE WHOLE ART OF

BREWING,

WITH REMARKS ON THE TREATMENT OF MALT LIQUORS, AND A LIST OF UTENSILS FOR THE BREWHOUSE, STILL-ROOM, AND CELLAR.

ADAPTED AS WELL FOR THE WHOLESALE MANUFACTURER AS ALL HOUSEKEEPERS.

BY THE AUTHOR OF

"CURING, PRESERVING, AND POTTING MEATS, GAME, FISH," &c.

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BRITISH WINES.

SECTION I.

DOMESTIC WINES.

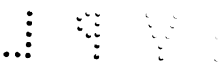
THE theory and practice of domestic wine-making are not importantly different, but it is necessary to the production of even tolerably good wines to draw the attention of the operator to the various means and methods by which he can attain perfection in the art. The conducting of the whole processes, from the very gathering of the fruit to the stowing away of the liquor in the cellar, is capable of so great improvement (and that, too, without any additional expense, loss of time, and labour), that it appears irrational to wonder at the frequent failures and disappointments which, for a series of years, have conspired to obtain for home-made wine so indifferent a character.

I confess that I should not have a high regard for

the opinion of one of that class of wine-drinkers who, regardless of the beautiful productions of a well-cultivated garden, and in a propitious season, would affirm that the best of our native wines are but rubbish; nay, many a well-informed man of business can negative such declamation, by assuring us that a majority of the so-called foreign wines, as the champagnes, ports, sherries, &c., and possibly of which we might at that moment be partaking, and loading with the usual laudations of good society, have never been out of England.

Aware of our fruits abounding in malic acid and being deficient of saccharine—sugar—the inevitable consequences of a climate not propitious to a quick ripening of our fruits, we add a judicious proportion of those requisites, and are thereby placed on an equal footing, in this respect, with our foreign friends.

We have, in abundance, the juices of active fruits, the apple, pear, crab, gooseberry, currant, the sap of the birch-tree, and rhubarb, for the production of lively "*mousseux*" wines, such as the variety of the champagnes. We have, for our more quiet liquors, lemons, oranges, damsons, and all plums, raisins, muscatel and malaga, peaches, elderberries, &c., quinces, and a score or two of other fruits and succulents, and for our bouquets and aromas, our cordials and liqueurs, all spices from the East and West and our colonies, our gardens simultaneously offering us



the beautiful pine strawberry, the raspberry, and all the other odoriferous products.

There are thousands of gallons of wines, &c., lost, ruined for want of the use of the thermometer, and another equally useful instrument, the saccharometer. For want of a knowledge how the heat on the one hand stands, and the state of sweetness of the other, the attenuation is run down so low as to leave no food in the liquors to sustain them, and consequently we obtain vinegar instead of wine.

All wines made from sugar and honey, and if only partially so, must be boiled at least half an hour, and skimmed and cleared as much as possible in that process.

If only one-half the trouble, care, and attention was paid by us as is devoted to wine-making in France, our productions would soon take their "proper stand" amongst the beverages of nations. Age, too, is seldom allowed our wines, and other disadvantages there are that fall to the lot of British wines, which in other countries are studiously avoided.

LIGHT OR DINNER WINES.

Light wines are now taken, "in preference," at every table where good taste rules.

LISBON WINE.

To each gallon of cold spring water add half a gallon of the juice of red or white currants, or both,

and to every gallon of the mixture 3½ lb. of the best refined sugar. Dissolve the sugar totally in the water, then put it into a perfectly sweet cask, and cover the bung-hole lightly with the bung, so as to admit the air for the better security of working the wine successfully. When it has been fermenting fifteen days, put into the cask a small muslin bag containing—

Brown mustard seed that has been previously steeped in a quart of brandy . .	1 pint
Coriander seeds, bruised	2½ oz.
Bitter almonds, split	1 oz.

Let the bag be suspended midway in the vessel; then add the used brandy, and stop up the cask effectually for eighteen months, if you can allow it, but certainly not less than twelve months. Then fine and bottle it. It will be a close imitation of the Portuguese article. Keep it in bottle three months. This is for 18 gallons of wine.

MADEIRA.

Into 44 gallons of boiling soft water, pour, by degrees, 4 bushels of ground pale malt. Mash for infusion; strain off the wort while warm. Take 24 gallons, and add—

Sugar-candy, broken small . . .	14 lb.
Cream of tartar	3 oz.

When perfectly dissolved, and at the temperature of 70 deg., add fresh ale yeast 2 lb. Ferment, skimming off the yeast, and when the ferment is nearly completed, add—

Raisin wine	2½ galls.
Brandy	2 galls.
Sherry wine	2 galls.
Rum	1 quart

Bung it close down in a sweet cask for eight months; then tap it, bottle, cork, and seal safely, and in four months more you will have a beautiful wine, that will keep as long as you desire; even at a year's end it has proved excellent.

PRIME BLACKBERRY.

Take blackberries fully ripe and picked clean from leaves, grubs, &c. &c., put them into a tub, or other vessel, having a tap in it fully three inches from the bottom, and pour on them as much boiling water as will just cover them. As soon as the heat will admit of it, bruise them well by hand, until none of the fruit remains unbroken. Let them so remain in maceration until the berries begin to rise towards the surface, which will occur in four days, if covered up. Then draw off the clear liquor into another vessel, and add to every 10 quarts of the mixture 4 lb. of Muscovado sugar of best quality, and that is said to

have "plenty of colour;" stir well, and let it stand to work rather more than a week; then filter through a flannel jelly-bag into a sweet cask. Now lay four ounces of American isinglass, and put it to macerate in a pint of blackberry juice for twelve hours; the next morning boil it on a slow fire for half an hour with 3 pints additional of the juice, and pour it into the cask; when cool, stir it well about, and then leave it to settle a few days; then rack it off into a clean cask, and bung it closely down. In nine months it will be fine, rich wine, and the bottling having been successfully conducted, and with the best white long corks, carefully waxed, you will be astonished at the reception it will meet with from persons known to be competent to judge. I have drank of it in Staffordshire with great satisfaction.

RASPBERRY WINE.

To each gallon of raspberries (the colour is indifferently regarded) add the same quantity of prime cider of Herefordshire, in preference now to that of Devonshire, and leave them to steep forty-eight hours; then press the fruit, and to each gallon of the juice put 3 lb. of real Muscovado sugar, coloured plentifully and clean; put them into your clean cask, and add to every 18 gallons of wine one gallon of brandy. In three months bottle it, cork well, and wax securely; at Christmas it will be a delicious

wine. If kept twelve months in bottle, the *bouquet* will astonish.

MULBERRY WINE.

When ripe, gather your mulberries, not all in one day, but each day getting some as they attain perfect maturity. Let them lie on clean wheat straw for a week, from the commencement of plucking. Now, for each gallon of berries allow a gallon of spring water, and let the fruit macerate thirty hours; then strain off the liquor with pressure, slowly and thoroughly, and to each gallon of the juice put 3 lb. of the best refined Bristol lumps. When it is dissolved (and be particular in the ascertaining of that fact), put it into your cask, adding to it—

Cloves bruised	2½ oz.
Nutmeg sliced	1½ oz.
Cassia, just beaten . .	1 oz.

all tied up in a bit of muslin, and suspended half way down the vessel. When the fermentation shall have ceased, bung the cask closely down, but not before that. Try it with a gimlet and spile at the end of four months; then, if it be fine, bottle it off into the cleanest well-corked bottles, and wax them safely. If otherwise, rack it off into another cask, in which let it abide eight months longer; then operate, and fail not to keep it six months in the glass.

Why? because it will richly deserve it; and secondly, because, at a year's end, it always is a flat wine, which is changed for briskness by long keeping. The quality will be undeniable.

RASPBERRY WINE.

When ripe, gather your fruit for wine-making. Disengage their husks, picking out the grubs, leaves, and insects, and bruise them; then strain out their juice through a horsehair cloth into jars. Boil the juice, and to each gallon of it add 1¾ lb. of double refined sugar. Now apply the whites of eggs, letting the whole boil twenty minutes, and skimming thoroughly as the scum rises. When the liquor is cool, and has deposited its sediment, put it into a sweet cask, adding brisk yeast to ferment it. As soon as this is accomplished, add half a pint of good British spirit (perhaps none is better adapted here than Kinahan's LL whisky, which can be procured in every large town) to each gallon in the cask, and suspend in it a bag containing—

Cloves, bruised	½ oz.
Mace	1 oz.
Green laurel leaves, crushed .	1 oz.

Bung it up securely, covering the bung with a piece of oiled linen cloth, and dry sand upon that. Keep it for six months in a cool situation, and it will be

then a truly delicious and valuable wine, and such as very many persons would be proud of placing before their guests. Let it remain in bottle a year for perfection.

RED GOOSEBERRY WINE.

From 10 gallons of ripe red gooseberries pick out all the unsound and decayed ones, put them into a sweet tub that has a tap-hole near the bottom furnished with a cock, and bruise the fruit thoroughly, then leave it thus for twenty-four hours, uncovered. The pulp may now be put, either all at once, or by successive operations, into a hair or canvas bag, and submitted to pressure. Return the matter contained in the bag into the tub, and pour upon it about 5 gallons of hot water, and stir them intimately together for fifteen minutes. After remaining, well covered, in the tub for twelve hours, the matter is to be pressed through the bag, and what liquor is got must be added to the first juice. You may throw away the matter left in the bag as useless, for it would make but very indifferent vinegar. Next, dissolve in each 5 gallons of the liquor 12 lb. of the best refined sugar, and mind that the mixture is thoroughly carried out by stirring.

Leave the liquor alone, and in about twenty-four hours it will show signs of approaching fermentation, and if the weather be esteemed cold for that time of year, place your containing vessel or vessels

near the fire. The fermentation would have set in sooner, and got on more actively, if the berries had not attained to maturity, or would not have required so high a temperature to excite it and carry it out successfully. Should the season be so warm as to cause too rapid a fermentation, and you fear your liquor may become sour, you may soon provide effectually against it by racking off the wine from its lees, the head of yeast being first taken off. When the fermentation has totally ceased, the wine must be racked off as clear as it is possible to get it, and to every 5 gallons of it add 2 quarts of French brandy, or good old malt spirits of Kinahan, or the best Scotch rectifiers'. Wishing to convey the largest amount of information on all subjects important to the success of British wine-making, I may, perhaps, be excused for seeming to favour the using of Messrs. Kinahans' spirits, when I state that I have myself, for many years, made use of the LL, or Lord-Lieutenant's, in making wines and cordials, and have never been (to the best of my knowledge) deceived in their qualities. It is important in wine-making that the spirits added should be as free from phlegm as possible, and Kinahans are rectifiers *only*—not distillers.

The wine, after the spirits are well mixed in with it, must now be left to settle for at least a month, then it must be gently drawn off into a sweet cask it will just fill, and set aside in a cool cellar for at least another year, when you may bottle it in cool dry

weather, cork securely with the best white wood, and use wax plentifully. If stored in a cool, yet genial atmosphere, and left undisturbed for two years, we may expect a fine, rich, mellow wine, and run but a very little chance of being disappointed.

WHITE CURRANT WINE.

To fill a 6-gallon cask, and to be kept five years in wood.

Take 3 gallons of ripe white currants, picked clean from the stalks, press out the juice thoroughly, and infuse the cake that remains in the bag in 1½ gallons of cold spring water for twenty-four hours, frequently stirring it; press out this liquor, mixing it with the juice, and add 14 lb. of the best refined sugar, which must be thoroughly dissolved. Shift the liquor into a cask that the liquor does not entirely fill, and put in a bung with a gimlet-hole bored in the centre of it, and keep this in a temperature of 70 deg. for a month.

VIDONIA WINE.

Sub-acid apples, well bruised	3 bushels
Clarified honey	10 lb.
White tartar	10 oz.
1 nutmeg, sliced	
Rum	2 quarts
Cold soft water	2 galls.

Boil the whole half an hour, making it up to 18 gallons. Strain it through a sieve, and put it to work with fresh ale yeast; when fermentation has distinctly ceased, fill your cask quite full, bung up close, and keep it cool for a year, then bottle it, waxing and wiring good corks. In six months more it will be very fine, pleasant wine.

CALABRIAN WINE.

For 18 gallons.

Apples, well bruised	3 bushels
Muscovado sugar	15 lb.
Red beetroot, thinly sliced . .	4 lb.
Red tartar, in powder . . .	3 oz.
Jamaica ginger, powdered . .	3 oz.
Rosemary leaves	1 handful
Lavender leaves	1 handful

Boil all these with 2 gallons of soft cold water for half an hour; then strain through a sieve, and set to ferment with prime ale yeast in the usual manner; when ready to be casked, add, in the tun, 2 quarts of good British spirits of wine, or 3½ quarts of cognac brandy. Let it remain, well bunged up, a year, then bottle and keep a year longer. A choice red wine of high flavour, with bouquet.

WHITE FALERNIAN.

Clarified honey	40 lb.
River water	60 galls.
Worcestershire hops . .	5 lb.
Coriander seeds, bruised .	4 oz.

Boil the honey with the water for one hour, skimming well as long as necessary, then add the hops, and continue the boiling fifteen minutes longer, then strain off clear, and when at 70 deg. add ale yeast 1 quart, if brisk and sound, if not, half a pint more. Let it ferment in the usual manner, and when about half completed add the seeds, stirring very gently five minutes. Have your cask ready to receive it, and it must be quite filled; put on the bung lightly, and when it has done hissing, and all is quite still, drive in the bung, cover it with oiled linen cloth, and after that with sand, and let it stand a year. Watch it well for the first month, by having a vent-hole near the bung, to prevent accident. This will be a rich, estimable wine of the mead kind, but the quantities so judiciously proportioned as to invigorate the system without fear of headache, if taken in excess. It will pass well for the foreign wine the name of which it bears. As a family wine it is highly recommended where much is drank.

A FAMILY WHITE WINE.

Fine brisk cider, or Sub-acid apple juice	16 galls.
Honey, well clarified	16 lb.
White tartar	4 oz.
Cinnamon, broken	1 oz.
Cloves and mace, each	1 oz.

Boil the three first half an hour, skimming well, transfer the liquor to a cooler, and when the heat has fallen to 70 deg. ferment with good active ale yeast, and add, in a canvas bag, the spices, and when the fermentation has ceased pour in old rum 1 gallon. The cask must be full when bunged tightly up. Keep it a year in cask in a cool cellar, then bottle it, putting in each bottle one clove. Tried and proved excellent. It would be improved further by age.

For 18 gallons.

CARCAVELLO.

Good sound sweet cider	19 galls.
Malaga raisins	20 lb.
Bitter almonds	3 oz.
Nutmeg, bruised	4 oz.
Laurel green leaves, bruised	1½ oz.

For 18 gallons.

Put the raisins, stalks and all, and laurel leaves into a sweet tub, and pour to them the cider, stir well for

half an hour, and let them ferment for three weeks. Draw off the clear liquor into a clean cask, put on the bung loosely, suspend the almonds and spice in the cask, and when all is hushed completely, bung down effectually. Keep it a year or more in the wood, then bottle it off, using the best white corks. If it can be allowed to remain its full time, viz. a year longer, in the bottles, you will have a choice light wine, possessing flavour, mildness, and a fine topaz colour.

PLUM WINE.

Take ripe Orleans and greengage plums, put them into a perfectly sweet tub, and by pressure of the hands get out the stones. Put the fruit into an oven in a stone jar, just cover them with sweet cider, tie brown paper over the jar, and let them stew gently until soft. Then replace them in the tub, adding for each pound of pulp half a gallon of soft water, and 2½ lb. of best moist sugar; stir them twice a day for three days; then put them into your copper with three times as many damsons, whole, as you had plums of both sorts, and adding water and sugar proportioned to the damsons as to the other plums. Boil them all together twenty minutes, then transfer them to your tub, and when cool enough press out the juice through your hair bag into a clean cask that will about hold it, keeping back as much of the liquor as will be required for filling up

with. You must next put into the cask a toast covered with good sprightly ale yeast, clap on the bung lightly, and encourage the usual fermentation. When this process has advanced a week, suspend in the cask a muslin bag, containing—

Coriander seeds, bruised . . .	3 oz.
Sweet fennel roots, bruised . .	2 oz.
Cloves and mace, bruised, each	1 oz.
Bitter almonds	3 oz.

For 18 gallons.

When fermentation has ceased, and the hissing no longer can be heard, stop up the cask safely, and keep the wine two years in the cask, after which, bottle it, using the best corks, and sealing them well. If kept in the glass a year, you will have a wine that will not less astonish than please you.

SECTION II.

BRITISH PORT WINE.

Take British grape wine, or good rough cider	4 galls.
Recent juice of elderberries .	1 gall.
Logwood, in fine chips . . .	4 oz.
Rhatany root, bruised . . .	½ lb.
French brandy	2 quarts

Infuse the logwood and rhatany root in the brandy and 1 gallon of the grape wine or cider, for one week; then strain off the liquor, and mix it with the other ingredients. Keep it in a tightly bunged cask one month; it will then be fit for bottling.

Second method.

Put into a clean and perfectly sweet 60 gallon cask, which has been previously fumed with brim-

stone, 8 gallons of sound port wine, add to that 40 gallons of good cider, and fill up the cask with French brandy. The juice of ripe elderberries and sloes will impart a proper degree of roughness, and you can communicate the colour you desire with cochineal.

Third method.

Take Sound cider	24 galls.
Port wine	4 galls.
Juice of ripe elderberries . .	6 galls.
Brandy	6 quarts
Logwood	1 lb.
American isinglass, dissolved in a gallon of the cider . . .	12 oz.

Blend these well together, by stirring, for one hour, and if you prefer a rough flavour, add alum, in powder, 5 oz. Bung it down closely, and in three months bottle it. In twelve months it will be ready for drinking.

BRITISH MADEIRA.

Put a bushel of good pale malt into a sweet tub, and pour upon it 11 gallons of river or soft water that has boiled but cooled down to 150 deg. Fahr., stir them well together for twenty minutes, cover the vessel close, and let them stand for infusion six hours. Next, strain off the liquor through a hair sieve,

dissolve in it 4 lb. of sugar-candy, and set it to ferment with good fresh ale yeast. The fermentation having continued three days, the yeast being skimmed off three times daily, pour the clear liquor into a perfectly sweet and clean cask, and add the following, first well mixed:

Cognac brandy . . .	2 quarts
Good raisin wine . .	5 pints
Genuine port wine . .	2 bottles

Stir them well for twenty minutes, and bung up the cask effectually; keep it in a cool situation twelve months, it will then be quite fit for bottling. This will be in no way inferior to the best of Cape Madeira.

Second method.

Pale malt, ground coarsely . .	4 bushels
Boiling river water	44 galls.

Stir well, and leave it for infusion as long as it is perceptibly warm, or at 90 deg. of Fahrenheit's scale. Then strain off the liquor, and while yet warm, add to 24 gallons of it, sugar-candy 14 lb., and cream of tartar 3 oz.; dissolve the sugar quickly by stirring, and when at 70 deg. add fresh sound yeast 2 lb. Skim off the yeast three times daily, and when the fermentation is nearly finished, add—

Raisin wine	2½ galls.
French brandy . . .	2 galls.
Sherry wine	2 galls.
Old Jamaica rum . .	1 quart

Suspend a muslin bag containing green laurel leaves, shredded, 1 oz., and cloves ½ oz., in the cask, from the bung. Stop the cask closely, and let it remain for twelve months; then if quite fine, bottle it, using the best white corks; if not, rack it off into a sweet cask; having first fined it with dissolved isinglass, rinse out the cask well, and return the wine fined, into it. Bung the cask now securely, and bottle in two months. This wine, if properly managed, will deceive many who profess correct judgment in genuine West India Madeiras.

BRITISH CHAMPAGNE.

Take	Whitest raw sugar	7 lb.
	Best refined sugar	8 lb.
	Crystallised lemon or tartaric acid	1¼ oz.
	Soft water	8 galls.
	White grape wine or cider . . .	2 quarts
	Perry	4 quarts
	Cognac brandy	3 pints

Boil the sugar with the water, skimming clear two hours. Pour it then into a tub, and dissolve in it the acid; when at 70 deg. heat add yeast, and ferment

in the usual manner. Put it next into a clean, sweet cask, and add the other ingredients; bung down securely, and keep it in a cool place for three months. Then bottle it, keep it cool six weeks longer, and it will be fit for drinking. If it should not be fine and clear after having been casked ten or twelve weeks, fine it with isinglass before bottling it. A pink and rich champagne may be made by adding fresh or preserved strawberries 1 lb., and powdered cochineal 2 oz.

Second method.

Take Light coloured moist sugar 9 lb.
Soft water . . . . . 3 galls.

Boil these half an hour, skimming thoroughly, and pour the boiling liquor on to 1 gallon of ripe currants clear picked off the stalks, but so as not to be bruised, or the seeds crushed. When cooled to blood heat, add fresh ale yeast half a pint, and let it ferment forty-eight hours; then filter it through flannel into a clean cask, with a quarter of a pint of isinglass finings. When the fermentation has ceased, bung it close, and so let it remain for a month; you may then bottle it, putting a lump of double refined sugar into each bottle. For pink champagne, employ red currants with a few red raspberries, otherwise the wine will be a white one.

CIDER CHAMPAGNE.

Take Fresh pale cider . .	1 hogshead
Malt spirits	3 galls.
Refined sugar or honey	20 lb.

Mix these well by agitation, and let them remain fifteen days. Fine with skimmed milk, half a gallon. This will be a very pale wine, and so close an imitation of the genuine article as to have frequently deceived many competent judges of foreign wines. It opens very lively, if well managed.

CYPRUS WINE IMITATED.

Put the juice of white elderberries 1 gallon to 4 gallons of soft water, and press them through a sieve without bursting the seeds; then add—

Best refined sugar . . .	20 lb.
Sliced ginger	¾ oz.
Cloves, bruised	½ oz.

Boil the whole of these together half an hour, skimming quite clear. Pour it into a tub to cool, and ferment it with good active ale yeast, spread on both sides of a toast of bread, three days; transfer it then into a cask just capable of holding it, and add raisins, stoned, 1 lb. When fermentation has ceased, add French brandy, 5 pints, and bottle it four months

afterwards. In colour and flavour, it will approach very nearly to the rich wines of Cyprus.

SARAGOSSA WINE.

To every quart of water put a sprig of rue, and to every gallon a handful of fennel root; boil these half an hour, strain through a hair sieve, and to every gallon of the liquor add 3 lb. of clarified honey; boil this two hours, skimming clear. When cold, pour it into a sweet cask, and keep it in the vessel a full year; you may then bottle it.

BRITISH CLARET.

Take	Soft river water . . .	6 galls.
	Sound cider	2 galls.
	Malaga raisins, cut . .	8 lb.

Put them together into a sweet vessel, and let them stand, closely covered up, in a warm situation, for fifteen days, stirring well every day. Then strain the liquor into a sweet cask, and add to it—

Ripe barberries . . .	1 quart
Juice of raspberries . .	1 pint
Juice of black cherries	1 pint
Mustard seed	

Work these well up together for an hour, cover the mass with a thin sheet of dough four days, and

set the vessel by the fireside. Let it thus stand for a week; you may then bottle it off. When it has, by age, become bright and ripe, it closely resembles claret.

PALERMO WINE IMITATED.

For every quart of soft water allow 1 lb. of Malaga raisins, press and cut the fruit small, put it to the water, and let it remain twelve days, stirring well twice a day, having previously boiled the water an hour before adding it to the raisins, and having cooled down to 75 deg. Next strain the liquor, and put to it a small quantity of fresh yeast; then pour it into your cask with a sprig of dried wormwood; let it be bunged close down, and in four months bottle it.

CLARET IMITATED.

Soak 2 pecks of recently-gathered vine leaves and their tendrils in 11 gallons of river water for two days, then add—

Red tartar	6 oz.
Sugar	30 lb.
Dried mint	½ oz.

Boil all together one hour, then cool it to 70 deg., and ferment it with brisk ale yeast for one week. Then

strain it very clear, and add to it a gallon of cognac brandy, in which have been steeped for four days—

2 nutmegs in powder
Cinnamon . . . . . 2 oz.
6 laurel leaves, shredded

Let it stand in a warm place four days, then bung it up in a sweet cask, let it remain ten days, then bottle it. This will fill an 18-gallon cask.

BRITISH MUSCADEL.

Boil 45 lb. of good moist sugar in 15 gallons of river water, when cool add by degrees 1 pint of ale yeast and 3 lb. of the tops of clary. Strain until clear, and ferment in the usual manner; and when it has quite ceased hissing, add a gallon of French brandy. Cask it and bung close.

BRITISH FRONTIGNAC.

To every gallon of soft water add 5 lb. of sun raisins; let them steep in the tub for three weeks, or thereabouts; then put them into your hair or canvas bag, and press them well. Then put the liquor into your cask, and let it ferment. In the mean time pick two handfuls of clary flowers and the same quantity of elder flowers; steep these in a gallon of British spirit for a month, then add it to the wine,

bung it down close, and let it remain for six months; then rack it off to the lees into another well-seasoned cask, and in a month it may be bottled.

Another method.

Take	Refined sugar	12 lb.
	Raisins of the sun . . .	6 lb.
	Water	6 galls.

Cut the raisins small, and boil all together for one hour, then take the flowers of the elder-tree, when fully blown and falling from the branches, half a peck, and add them to the liquor when it is nearly cold; next day, add 6 spoonfuls of syrup of lemons, and 4 spoonfuls of ale yeast; in two or three days put it into your cask, bung close, and when it has stood three months, bottle it. A very brisk and excellent wine.

A third method.

Raisins of the sun, cut small .	7 lb.
Refined sugar	12 lb.
Spring water	6 galls.

Boil these all together for an hour and a half. When the liquor is cold, put into it half a peck of full-blown elder flowers, with a gill of lemon juice, strained, and half the quantity of brisk ale yeast. Cover your vessel close, and after it has stood four days strain it

off into a perfectly sweet cask that will contain it easily. Add a quart of Rhenish wine to every gallon of your liquor, and put the bung on lightly for fourteen days; stop it down securely, and keep it in a cool situation for six months, when it will be settled and fine. You may then bottle it, wiring the corks, and keeping the cellar cool in the hot weather. This is a much stronger wine, and will bear age well.

BRITISH MOUNTAIN.

Pick from your fine Malaga raisins all the larger stalks, chop them very small, and allow 5 lb. to every gallon of cold spring water. Let them macerate fourteen or fifteen days, then press out the liquor, and put it into a cask that has been well fumigated with a brimstone match. Let it remain, with the bung loosely put on, until the hissing of the ferment has totally ceased, then bung it close, and when fine, bottle it.

Another way.

Clear Malaga raisins, crushed	90 lb.
Cold spring water	18 galls.
Fennel roots, sliced	3 oz.
Cloves, bruised	2 oz.

Blend these well together, by agitation in a sweet tub, and let them remain for a fortnight in steep. Then

press out the liquor, and put it into a sweet cask that has been well sulphured, and do not put on the bung tightly until the fermentation is completed; then adding 9 quarts of French brandy, make all secure, and in six months you may bottle it.

BRITISH SHERRY.

Pale ale wort, made as directed for British Madeira . . .	4 galls.
Pure cold water	7 galls.
Refined sugar	16 lb.

Boil them together slowly three-quarters of an hour, constantly skimming: pour it into a clean, sweet tub, and dissolve in it 4 lb. of powdered sugar-candy; ferment with brisk yeast for three or four days, in the manner as directed for British Madeira. When poured off clear into a sweet cask, add 5 lb. of the best raisins, bruised and stoned; stir up the liquor once or twice a day at least, and, after standing loosely bunged two days, add 3 quarts or a gallon of French brandy; then bung the cask closely, and in four months bottle it for use. This will be worthy to remain in bottle a year longer.

AUSTRIAN WINE.

Pick red or purple grapes clean from their stalks and refuse, into a pail, then transfer them into a vat

strewed over with white mustard, in the proportion of half a pint of seed to 5 pailfuls or 10 gallons of fruit. After bruising the grapes with a wooden smasher, the vat must be closely covered, and the mash thoroughly stirred every day. In eight or ten days it is to be pressed and have the expressed mash, or *must*, passed with the liquor into the barrel, the height of a hand being left unfilled. It must then be very often stirred, both day and night, with a stick, to prevent its further fermentation; when it becomes quiet and settled, the barrel is to be filled up with *must*, but not with old wine. The barrel is then to be closed, and the liquor fined and drawn off, and bottled as other wines. When a large quantity is to be made, there should be several vats, in none of which the mash ought ever to be more than 2 feet deep.

BRITISH MALMSEY.

Pour a gallon of boiling water on every 4 lb. of sliced parsnips, cut not too thick. When cold, press out the liquor, and to each gallon add cream of tartar ½ oz., and good Muscovado sugar 3 lb. Ferment in the usual way, pour off, and add a gallon of French brandy to every 20 gallons of wine.

BORDEAUX WINE IMITATED.

Take a gallon of fine Devonshire cider and an equal

quantity of sound port wine. Mix and shake them well together. Put the mixture into bottles, corking well. Let the bottles be laid on their sides. In a month or six weeks it will be a close imitation of the foreign Bordeaux wine.

RAISIN WINE.

Take 30 lb. of Malaga raisins, picked clean from the stalks and all refuse, let them be chopped into small pieces and thrown into a clean tub. Pour on them 3 gallons of tolerably hot water, and let them stand so for twelve hours. Throw the whole into a hair cloth or canvas bag, and with a press force out the juice. On to the *marc* pour 2 gallons more of hot water, and after twelve hours press out as before. Mix the two liquors; add 3 lb. of refined sugar, and dissolve it perfectly. A fermentation will set in; when it is over, the liquor is to be racked into a sweet cask, and left, bunged up for three months, after which it is to be racked again. A $\frac{1}{4}$ oz. of isinglass dissolved in a little wine is to be mixed with it, and the whole returned into the cask. Being closely bunged, it is to remain twelve months. It may then be bottled. The cask must be full.

Another method.

To every gallon of clear river water put 5 lb. of

Malaga raisins, let them steep a fortnight, stirring them daily; pour off the liquor, squeeze the juice from the fruit, and put both liquors together in a vessel that will exactly contain them. Let the vessel stand open till the wine has ceased hissing, or making the least disturbance. Add a pint of cognac brandy to every 2 gallons of wine. Stop it close, and when it is fine, bottle it. If you should prefer it red, use cochineal moderately. Keep it in bottle a year before drinking it.

A third method.

For a hogshead of prime sound Malaga.

Take 300 lb. of the best Malaga raisins you can procure (do not pick out the stalks), reject any unsound ones, put them into a hogshead of spring water with 1 lb. of Worcestershire hops; let them stand fourteen days, stirring twice a day; then press the liquor into a tub, and put to it a piece of toasted bread, spread on both sides with good sound ale yeast, and let it ferment twenty-four hours; afterwards remove the liquor into a sweet cask, in which it should ferment fourteen days longer, filling it up again as it works over out of the cask, and when it has ceased working, let it be securely bunged up. You may put 18 gallons of water upon the raisins, and obtain a nice small light wine, and press

it out a week after. When this latter is two months old, you may bottle it. The hogshead should not be tapped under twelve months, when bottle it.

MEAD.

Mead is a very pleasant liquor if due care be taken in the making of it. The too common practice of making it strong, by putting so large a proportion of honey to be fully dissolved in the water as to float a hen's egg, is altogether incorrect. The liquor is thereby rendered a mere scum, and this bad quality is increased by the long boiling generally practised. I am aware that it is scarcely possible to procure honey so pure but that some extraneous substance may be mixed with it; and this cannot be separated from it except by boiling and skimming. On this account the boiling of mead seems indisputably necessary. In order the more effectually to separate these impurities from the liquor, some whites of eggs may be mixed with it before it is put on the fire; it will be particularly necessary to take off, with a skimmer, the thick scum that rises the moment the liquor begins to boil; and this must be attentively continued so long as it boils. The only intention of boiling being to separate the impurities, and to effect a perfect union with the water and honey, both of which purposes are very soon obtained, it evidently appears that the boiling need be but of very short duration. This becomes more particularly necessary, because

the liquor will be less disposed to ferment kindly the longer the boiling has been continued.

It is perhaps mainly owing to the single operation of long boiling, that mead has hitherto laid under such discredit, because then it never fermented sufficiently to take off its luscious sweetness, whereas, had it undergone a due fermentation, that sweetness would have been carried off, and the mead would have attained a fine racy flavour. It is the practice of some to add hops to mead. This certainly helps to take off its sweetness, and, as the bitterness of the hops goes off, gives the wine a pleasant flavour. A ferment is in this case generally wanted in all liquors that are boiled to bring on a perfect fermentation; but as the least taint in the ferment is easily communicated to the whole liquor, particular care should be taken that it be very sweet and good. See remarks on the choice of malt, hops, yeasts, and honey.

Mead, when well managed on these principles, will keep for years, will be improved by age, and is not expensive. The racking, fining, &c., of this liquor are similar to those made use of to other white wines.

MEAD.

Take	Clarified honey . .	30 lb.
	Soft water	13 galls.
	Rosemary tops, thyme, bay leaves, sweet-brier	1 handful altogether

Mix the honey and water, boil them ten minutes, skimming all the time; then add the herbs, and continue the boiling half an hour longer. Strain the liquor into a sweet tub upon 5 quarts of ground malt, stir it until it is lukewarm, and then strain it through a cloth, and return it into the tub; toast a piece of bread, spread it over with good active yeast, and add it to the liquor. Fermentation will soon set in, and when the liquor is covered all over with yeast, put it into your sweet barrel. Then put into a little muslin bag these spices—

Bruised cloves, mace, and nutmegs, each .	½ oz.
Best ginger, sliced	1 oz.
Laurel leaves, green and shredded . .	½ oz.

Suspend the bag in the cask, adding a few small pebbles to sink it, and fasten in the bung securely. Keep it in the cask for nine months, then bottle it. A choice wine.

A second method.

Clarified honey	30 lb.
Boiling water	15½ galls.
Juice of 2 gallons of white currants	
Tartar	3 oz.

Put all these into a sweet tub, and stir them continually for a quarter of an hour, and then let them be allowed to ferment. When the fermentation is over, and the liquor clear, add a gallon of French brandy,

and bottle it immediately. In six or eight months it will be fit for drinking, and will be bright and sparkling.

RED MEAD.

Honey	30 lb.
Boiling water	15½ galls.
Juice of 6 quarts of red currants	
Juice of 2 quarts of black currants	
Red beetroot in thin slices . . .	1 lb.

Proceed as in the last recipe, in every respect, for a brilliant, lively light ruby wine.

AMERICAN MEAD.

Honey	20 lb.
Good sound cider	12 galls.

Blend these together in a sweet tub, and ferment in the usual way; when that is accomplished, and transferred into a sweet cask, add—

Good old rum	½ gall.
French brandy	½ gall.
Red or white tartar dissolved	6 oz.
Bitter almonds	¼ oz.
Cloves	¼ oz.

Bung close, and in three months bottle it. In three months longer you will have a fine, full-bodied wine fit for drinking.

UNRIPE GOOSEBERRY WINE.

(From the late Dr. M'Culloch.)

The fruit must be selected before it shows the least tendency to ripen, but about the time when it has nearly attained its full growth. The particular variety of gooseberry is perhaps indifferent, but it will be advisable to avoid the use of those which, in their ripe state, have the highest flavour. The *green Bath* is, perhaps, amongst the best. The smallest should be separated by a sieve properly adapted to this purpose; and any unsound or bruised fruit rejected, while the remains of the blossom and the fruit-stalk should be removed by friction or other means.

Forty pounds of such fruit are then to be introduced into a tub carefully cleaned, and of the capacity of 15 or 20 gallons, in which it is to be bruised in successive quantities by a pressure sufficient to burst the berries without breaking the seeds, or materially compressing the skins. Four gallons of water are then to be poured into the vessel, and the contents are to be carefully stirred and squeezed in the hand, until the whole of the juice and pulp are separated from the solid matters. The materials are then to remain at rest from six to twenty-four hours, when they are to be strained through a coarse bag, by as much force as can be conveniently applied to them. One gallon of fresh water may afterwards be passed through the *marc*, for the purpose of removing any soluble matter

which may have remained behind. Thirty pounds of loaf sugar are now to be dissolved in the juice thus procured, and the total bulk of the fluid made up with water to the amount of 10½ gallons.

The liquor thus obtained is the artificial *must*, which is equivalent to the juice of the grape. It is now to be introduced into a tub of sufficient capacity, over which is spread a blanket, covered by a board, the vessel being placed in a temperature varying from 55 to 60 deg. of the thermometer. Here it may remain for twenty-four hours or two days, according to the symptoms of fermentation which it may show; and from this tub it is to be drawn off into the cask in which it is to ferment. When in the cask, it must be filled nearly to the bung-hole, that the scum which arises may be thrown out. As the fermentation proceeds, and the bulk of the liquor in the cask diminishes, the superfluous portion of *must*, which was made for this express purpose, must be poured in, so as to keep the liquor still near the bung-hole. When the fermentation becomes a little more languid, as may be known by a diminution of the hissing noise, the bung is to be driven in, and a hole bored by its side, into which a wooden peg is to be fitted. After a few days this peg is to be loosened, so that if any material quantity of air has been generated, it may have vent. The same trial must be made after successive intervals, and when there no longer appears any danger of excessive expansion, the spile may be permanently tightened.

The wine thus made must remain during the winter in a cool cellar, as it is no longer necessary to provoke the fermenting process. If the operator is not inclined to bestow any further labour or expense upon it, it may be examined some clear and cold day, towards the end of February or the beginning of March, when, if fine, as it will sometimes be, it may be bottled without further precautions.

To ensure its fineness, however, it is a better practice to decant it, towards the end of December, into a fresh cask, so as to clear it from its first lees. At this time, also, the operator will be able to determine whether it is not too sweet for his taste. In this case, instead of decanting it, he will stir up the lees, so as to renew the fermenting process, taking care also to increase the temperature at the same time. At whatever time the wine has been decanted it is to be fined in the usual way with isinglass. Sometimes it is found expedient to decant it a second time into a fresh cask, and again to repeat the operation of fining. All these removals should be made in clear, dry, and, if possible, cold weather. In any case it must be bottled during the month of March.

The wine thus produced will be brisk, and similar in its qualities (flavour excepted) to the wines of Champagne, with the strength of the best Sillery.

Inattention, or circumstances which cannot always be controlled, will sometimes cause it to be sweet and still, and sometimes dry.

In the former case it may be re-manufactured the following season, by adding to it that proportion of juice from fresh fruit which the operator's judgment may dictate, and renewing the fermentation and subsequent treatment as before. In the latter case, as its briskness can never be restored, it must be treated as a dry wine, by decanting it into a sulphured cask, when it must be fined and bottled in the usual manner. Such dry wines are occasionally disagreeable to the taste in the first or second year, but are much improved by keeping.

If the whole *marc* be allowed to remain in the juice during the first fermentation, the process will be more rapid, and the wine stronger and less sweet; but it will acquire more flavour. If the wine is intended to be very sweet as well as brisk, the quantity of sugar may be increased to 40 lb.; if less sweet and less strong, the sugar may be reduced to 25 lb.; it will then be brisk but less durable, and it ought to be consumed within a year. When the quantity of sugar is 30 lb., it will be, perhaps, better to use 50 lb. of fruit than 40, as generally recommended.

In this process it may be observed that no brandy is added to the wine after it is finished, although it is the invariable practice amongst makers of domestic wine to add it. Dr. M'Culloch says that this practice has been introduced under the mistaken notion of preventing wines from turning sour, and enabling them to keep a longer time. But he says that this admix-

ture decomposes wine, and that, although slow, the process is certain. The first and most conspicuous effect of it is the loss of that undefinable and lively, or brisk, flavour which all those who possess accuracy of taste can discover in French wines, or in natural wines. If, however, brandy or malt spirit is to be employed, the quantity of sugar is to be diminished at the rate of 2 lb. for every quart of spirit to be added.

GOOSEBERRY WINE.

Gather gooseberries in a dry season, when they are half ripe, pick them, and bruise them in a tub with a wooden mallet, for no metal should be used; take about a peck of the berries, put them into a horse-hair cloth, and press them as much as possible, not breaking the seeds; repeat this till they are bruised, adding this to the other pressed juice in the tub; add to every gallon 3 lb. of powdered loaf sugar, stir well till the sugar is dissolved, and then put it into a vessel, which must be quite filled with it. If the vessel holds about 10 or 12 gallons, it must stand about three weeks, or if about 20 gallons, four or five weeks, to settle, in a cold place. Draw off the wine from the lees. After you have disposed of the lees, return the clear liquor into the vessel again, and let it stand three months if the cask is about 3 gallons, or between four and five months if it be 20 gallons, and then bottle it. This wine, if managed according

to the above directions, will improve every year, and maintain its strength and flavour.

Another method.

To 12 gallons of soft water put 8 gallons of white gooseberries; let them be well bruised, and steep them for forty-eight hours, then press them through a coarse bag, and add to the juice 25 lb. of raw sugar; put it all into the cask, and let it work for three days; then add to it ½ gallon of French brandy, and 1 pint of fine mustard-seed. Let it stand six months, then bottle it, wiring the corks.

PEARL GOOSEBERRY WINE.

Take as many as you think proper of the choicest pearl gooseberries, bruise them, and let them stand till the next day; then press or squeeze them out, and let the liquor stand seven or eight hours; now pour off the clear juice from the sediment, and measure it as you put it into your cask, adding for every 3 pints 1 lb. of lump sugar, roughly broken, together with a little finings. Close it up securely, and in three months bottle it off, putting into each bottle a lump of refined sugar. This will be a fine wine after it has been bottled three months.

CURRANT WINE.

Gather your currants when fully ripe, strip them from the stalks, and mash them with pressure, not

breaking the seeds; press out the juice, and, to each gallon of it, put 2 quarts of water that has been boiled and has become cold; let it stand in a sweet tub for twenty-four hours to ferment, then run it through a hair sieve; let no hand touch it, but let it run gradually, and to every gallon of the liquor add 2½ lb. of loaf sugar; stir it well, put it in your vessel, and to every 6 gallons put 1 quart of highly rectified spirits of wine. Let it stand six weeks, then bottle it. If it is not quite fine, empty it into other bottles, and after it has stood a fortnight, rack it off into smaller bottles.

WHITE CURRANT WINE.

To every gallon of the expressed juice add 2 gallons of water, and to every gallon of this mixture add 3 lb. of the best refined sugar; let the sugar be thoroughly dissolved in the juice, then put it into a perfectly sweet cask, and leave the bung lightly over the bung-hole, so as to admit a little of the air, and when it has been working about a fortnight, put into it, in a muslin bag, suspended from the bung, about half way down in the cask, 1 pint of mustard seed, previously steeped in a quart of French brandy, and in twelve months you may tap it, and bottle it off, using the best corks, and sealing them.

These wines are too generally tapped in three or four months after they have been made; but, if it be convenient to let them remain intact for a season, there

will be no comparison as to quality. I will venture to assert, that wine made according to this recipe will be hardly inferior to genuine Lisbon.

RED CURRANT WINE

may be made according to the preceding formula, as far as regards the proportions of fruit and sugar; but a few red raspberries will be a great improvement to the red currants: say about 1 gallon of the juice to 18 gallons of the wine. It is worked in the same manner, but there is no necessity for either brandy or mustard seed to be added; indeed, the latter would not be admissible in red currant wine.

A second method.

To 10 gallons of white and red currants, mixed, add 9 gallons of pure soft water; let them steep for twenty-four hours, then add 14 lb. of best raw sugar and 14 lb. of genuine honey, also 2 lb. of red beetroot, thinly sliced. Let it ferment as usual, and when that is completed, add cognac brandy 1 gallon. This must not be tapped before the expiration of a year; then bottle it, seal the corks, and let it remain six months longer in bottle before drinking it.

A third method.

To 8 gallons of red currants put 1 quart of red raspberries, press out the juice, and to the *marc* add 11 gallons of cold water. Add 2 lb. of red beetroot,

sliced as thin as possible, and let them infuse, with frequent mixing, for twelve hours; then press out the liquor as before, and add it to the juice. Next dissolve 20 lb. of raw sugar in the mixed liquor, and 3 oz. of red tartar, in fine powder. Fermentation will set in shortly, and it is to be managed according to the directions for the gooseberry wine. When it has ceased hissing, and is quiet, add 1 gallon of cognac brandy; let the wine stand for a week, then rack it off, and let it stand two months. It may now be finally racked off; bung it up in the cask safely, and set it in a cool cellar for as many years as it will take to mellow it. If you can wait three years, you will be in possession of a wine having colour, spirit, fineness, body, and aroma.

White currant wine may be made according to the same recipe from—

White currants . . .	9 galls.
White gooseberries . .	1 gall.
Refined sugar	25 lb.
White tartar	1 oz.
Bitter almonds . . .	2 oz.
Water	9 galls.
French brandy . . .	1 gall.

The beetroot to be, of course, omitted.

BLACK CURRANT WINE.

For 18 gallons.

To 7 gallons of the juice of black currants put the

same quantity of water, and add to it 56 lb. of best raw sugar; put it into your sweet cask, keeping back sufficient liquor to keep filling up with as it works over. When fermentation has subsided, put to it 1 gallon of French brandy; then bung it close down, and let it remain for not less then twelve months, when you may bottle it, and let it remain six months longer in the glass.

Another method.

By the same formula as for the red currant wine, page 43.

Black currants . . .	6 galls.
Strawberries . . .	3 galls.
Best raw sugar . . .	25 lb.
Red tartar	4 oz.
Cold water	10 galls.
Cognac brandy . . .	3 quarts

For 18 gallons.

RASPBERRY WINE.

To every gallon of raspberries put 1 gallon of water, and let them macerate forty-eight hours; then press the fruit, and, to each gallon of juice, put 3 lb. of the best raw sugar; transfer it to a sweet cask, and add to every 18 gallons of wine 1 gallon of cognac. In four months you may bottle it off, and in four months more it will be ripe and full of bouquet.

Another method.

Bruise 6 gallons of raspberries, press out the juice, on the *marc* pour 7 gallons of water, infuse for twelve hours, and press out the liquor. Add the latter to the juice, and mix with them 6 gallons of cider. Dissolve in the mixture 16 lb. of good raw sugar and 3 oz. of powdered red tartar. It must now be set to ferment; the rinds of two lemons and two oranges, cut off very thin, as well as their juice, may be thrown into the fermenting vessel, and when the process is over the rinds may be removed. Three gallons of cognac brandy are to be added at the proper time. A gallon of the juice of red and white currants may be substituted for one gallon of the water with great advantage, and excellent effect as to aroma and softness.

For 18 gallons.

STRAWBERRY WINE.

Ripe pine strawberries . . .	1 bushel
Best raw sugar	30 lb.
Water	10 galls.

Dissolve the sugar thoroughly by mashing it with the fruit in a sweet tub, put it all into your cask with the rinds and juice of twelve lemons, let it work well, and when fermentation is fully completed, add 1 gallon of French brandy. In four months it may be tapped and bottled, the best corks being used, which

is indispensable if you value *aroma* in this beautiful wine. Let it lie in the glass six months; keep some part of it a year in bottle, which will repay your economy.

Another method.

Pine strawberries, crushed by hand	1 bushel
Prime Herefordshire cider . . .	6 galls.
Clear, soft water	6 galls.
Raw sugar	16 lb.
Bruised ginger	¼ lb.
Juice and rinds of three lemons	

Mix thoroughly by stirring twenty minutes, set it to ferment in the usual manner, and when all disturbance in it has ceased, add French brandy 2 quarts, bung it closely, and allow it to remain casked until it is beautifully bright. To these delicate fruits no metal spoons, &c., as crushers, tasters, &c., may be used. The bottling department should be managed with care and particular cleanliness. If kept in bottle a year, you will not have looked for a rich bouquet in a *British* wine in vain.

COWSLIP WINE.

Refined sugar	60 lb.
Picked cowslip flowers	17 pecks
Juice and thin rinds of 24 middle-sized lemons	
River water	30 galls.
Brisk, sound ale yeast	1 gill

Boil the water and sugar one hour, skimming thoroughly, put it into a tub and let it go cold, then add the flowers, the lemon juice and yellow rinds, and the yeast. Let these be well roused up three times a day for three days, then rack the whole (cowslips too) into a particularly clean and sweet cask, adding thereto 2 quarts of cognac brandy. When fermentation has fully ceased, bung up the cask as close as possible; so let it remain untouched for a month. Then bottle it, cork well and seal the corks. Having been in the glass six or eight months, you may expect another full-bodied wine of rich colour and flavour, and a delightful bouquet.

Another method.

Take 6 gallons of soft water and 12 lb. of loaf sugar, boil them one hour, skim them well, and let them get cold. Toast a piece of bread, and spread both sides of it with yeast. For every gallon of your liquor add thereto 1 oz. of the syrup of citrons, which, if you find a difficulty in procuring, substitute by the thinly-pared yellow rind of a fine blood orange and its juice, or in preference of oranges and lemons mixed; one orange or lemon to each gallon of water. Stir up your liquor for ten minutes, and add the toast while still warm. Then let it work for four or five days, and during that time introduce the cowslip flowers, a peck at the least, bruised a little between two cloths, also two lemons sliced, and a pint of any good white

foreign wine to each gallon of your own. After letting it stand three days, pour it into a very clean and sweet cask, bung it close, and in two months bottle it.

COWSLIP MEAD.

To 15 gallons of water put 30 lb. of honey, and boil it till one gallon be wasted. Skim it thoroughly, then remove it off the fire, and have ready 16 lemons cut in halves. Take a gallon of the liquid and mix it with the lemons. Pour the rest of the liquor into a tub with 7 pecks of cowslips, and let them stand till next day; then put in the liquor with the lemons, eight spoonfuls of new yeast and a handful of sweet-brier; stir them all well together, and let it work three or four days. Then strain it, put it into the cask, and bunging it close down, let it stand six months, when you may bottle it, using the best corks and waxing them.

APRICOT WINE.

Take 12 lb. of ripe apricots, wipe them clean, and cut them in pieces; then put them into 2 gallons of water, and let them boil, then simmer only, till the water has strongly imbibed the flavour of the fruit; then strain the liquor through a hair sieve, and put to it 6 oz. of refined sugar for every quart of the liquor; then boil it again, and skim it carefully; and when the scum rises no longer, pour it into an earthen vessel. Next day, if it is beautifully clear (which is

most likely), you may bottle it off, putting a lump of loaf sugar into each bottle. Keep it six months longer for a fine mellow wine.

Another method.

Take 3 lb. of refined sugar, and 3 quarts of river water, boil them together, skimming attentively until no more scum is seen; then put in 6 lb. of ripe apricots, skinned and cut in pieces, and let them boil until they are tender; then take out the fruit, and having added a sprig of clary, boil again one minute; pour the liquor into an earthen or glass vessel, and next day bottle it.

BIRCH WINE.

The proper season for procuring the liquor from the birch-trees, is at the beginning of the month of March, while the sap is ascending, and before the leaves appear. The juice, by being long digested in the bark, grows thick and coloured, which before was thin and clear. The method of procuring the juice is by boring holes in the trunk of the tree and putting in faucets, which are commonly made of the branches of elder, the pith being taken out. You may, without hurting the tree, if large, tap it in several places, five or six at a time, and by that means save from a few trees several gallons every day. If you have not enough in one day, the bottle into which it drops must be corked close, and rosined or waxed; how-

ever, make use of it as soon as you can. Take the sap and boil it as long as the scum rises, skimming all the time, and to every gallon of liquor put 4 lb. of Muscovado sugar, and the peel of a lemon; boil it afterwards half an hour, skimming it clear, pour it into a perfectly sweet tub, and when it is almost cold set it to ferment with yeast upon a piece of toast; let it stand five or six days, stirring it often. Then choose a cask that will hold the liquor easily, fire a large brimstone match, and throw it into the cask; stop it close till the match is extinguished; turn the wine, lay the bung on lightly till you find the wine has done working, stop it close, and keep it for three months. Then bottle it off, using the best white corks, for this is a brisk, effervescing wine if properly managed, and requires the corks to be wired.

Another method.

In March, bore a hole in a healthy, flourishing birch-tree, a foot or eighteen inches from the ground, into which put a faucet, and the liquor will run for two or three days together, without injuring the tree; then stop up the hole with a peg. To every gallon of this sap put 2¼ lb. of good raw sugar, and incorporate them thoroughly by stirring. Boil this mixture one hour, clearing it with whites of eggs, and skimming as long as necessary, and adding a few racy cloves and a piece of orange, or (which is better) of lemon-peel, when it is nearly cold (for the flavour of these

would fly off were the liquor hot). Now add fresh ale yeast, and work it in the usual way; and when the top yeast begins to fall, take your clean cask, fumigate it with a brimstone match, and pour into it your liquor. For 20 gallons now add a gill of finings, and the whites and shells of four eggs, stir it briskly with a staff, and let it stand seven or eight weeks longer; then bottle it, wiring the corks and waxing them. In two months it will be fit for use, but it well deserves to be kept a year and longer, for it is a full-bodied wine, and will be greatly improved by age.

PLUM WINE.

Take ripe greengage or Orleans plums, or both, take out half the stones as useless, mash the fruit by hand, and in a clean tub cover them with boiling water and let them stand, well covered up, for seven or eight days; bore a hole nearly at the bottom of the vessel, and let the juice run from the pulp into another sweet tub. Now to every gallon of the juice put 3 lb. of refined sugar of best quality. When this is perfectly dissolved, transfer your liquor into a cask, and bung it down for a week, adding French brandy to it, at the rate of a gallon to 18 gallons of the wine. Draw a tumblerful of this rich, full wine, in the course of the succeeding week, and if it is beautifully clear, bottle it. It will be greatly esteemed by the fair sex, and may be drank after it has been in glass two months.

Another method.

Take 20 lb. of Malaga raisins, pick, rub, and shred them, and deposit them in a sweet tub. Boil 4 gallons of pure soft water one hour, let it cool down to 75 deg. Fahr., then pour it on to your fruit; let it stand ten or twelve days, stirring twice a day at least. Now strain out the liquor, and add to it 2 quarts of fully ripe damson juice, put it into a cask, and when it ceases to ferment, stop it close. At the termination of six months you may bottle it.

DAMSON WINE.

Let the fruit be gathered on a fine dry day. Weigh and bruise it, put it into a clean vessel that has a tap in it, two inches above the bottom, and add to every 8 lb. of fruit a gallon of river water, boiling hot; let it stand two days and nights. Now draw it off into a vessel, and add to it best moist sugar, 2½ lb. to each gallon; mind that the vessel is full, then stop it close. It improves wonderfully by age. Wine made according to this recipe will astonish the consumers when it is two years old.

Another method.

Add 2½ lb. of good Muscovado sugar to every gallon of pure river water; boil and skim it for two hours, and to every gallon of liquor put 5 lb. of ripe damsons, stoned; boil them until they are of a bright red colour, then strain the liquor through a sieve,

and let it ferment in an open vessel five days, after which, pour it off from the lees, clean and scour the vessel, and then put in the liquor to complete the fermentation there. Close up the cask securely, so let it remain nine months, and then, if fine, bottle it. It should be kept in bottle a year at least; but, as I have already remarked, age will repay you for the patience exercised.

BLACK CHERRY WINE.

Boil 6 gallons of spring water one hour; then take 24 lb. of small black cherries and bruise them, taking care not to break the stones; pour the water boiling upon the fruit, and stir it well together, and after it has stood twenty-four hours, strain out the liquor through a cloth, and to every gallon add 2 lb. of loaf sugar; mix it well, and let it stand another day; then pour off the clear liquor into a sweet cask, and keep it closely bunged. When it has become beautifully fine, bottle it. Keep this wine a year at least. It will then possess much of the delicious flavour and bouquet of the famed "Maraschino" of Italy.

Another method.

Take 50 lb. of black cherries, carefully picked from the stalks, rejecting all unsound ones; bruise them thoroughly with the hands; take half a bushel of red currants, and 1 gallon of ripe red raspberries, let them be bruised in the same manner. To this

quantity of fruit allow 40 lb. of best refined sugar, dissolve it thoroughly in 18 gallons of soft water, and put it into a vessel with the fruit; then fill up the cask with soft water, leaving only room for the working, and when all is in the vessel, stir it well all together with a staff; it must not be bunged close for three weeks or more, and until it has ceased hissing. You may bottle it in six months, and, if well managed, it will afford you a rich, full-bodied, and delicious wine, well worthy to be kept in bottle for two years.

RED CHERRY WINE.

Red cherries bruised . .	8 galls.
Of the stones broken . .	$\frac{1}{8}$th part
Refined sugar	30 lb.
Red tartar	6 oz.
Brandy	1 gall.
Water	11 galls.

Press out the juice, and infuse the water for twenty-four hours on the *marc*, so as to obtain the flavour from the stones. Ferment by the usual process. Cask it safely, and let it remain so for six months; then bottle it, and keep it in the bottles a year longer.

MULBERRY WINE.

Procure your mulberries, but not before they are fully matured, and then to each gallon of fruit put a gallon of pure spring water, and let them macerate twenty-four hours; then strain them through a hair cloth or

coarse canvas bag, and to every gallon of the juice put 3 pounds of best refined sugar. When this is perfectly dissolved, put the liquor into your cask, and do not bung it down until it has ceased working. Then make the bung secure, and if, by trial, you find the wine beautifully bright and clear, you may bottle it. Otherwise, allow it a month longer in the wood, after having added a small quantity of isinglass finings. Let it stay in bottle a year; but two years will be not too long, if you want this choice wine to embrace all the advantages which you would hardly deny to a wine of far less pretensions.

Note.—Since this fruit is not commonly produced, and seldom comes to maturity in cold seasons, in England, I beg to be excused for recommending that the first propitious vintage that next occurs be embraced by way of trial, and then, at bottling, add two cloves only, and a small lump of refined sugar to each bottle; seal the best white corks upon it, and keep it three years in a cellar of medium temperature. It has been stigmatised as a flat wine, but I have drank it in Kent as made from this recipe, when it was five years old, and thought it superior to the best claret.

BLACKBERRY WINE.

Gather your fruit just as it becomes ripe, and be careful to preserve all the juice possible, by collecting the berries in cans and jars. Pick it clear from stalks, grubs, and unsound fruit, put it into a sweet

tub, bruise it by hand, and put to each quart of berries a quart of river water, that has been boiled ten minutes and has become cold. Let it stand to macerate a day and a night; then let it drain off through a sieve, and to every gallon of liquor add 2 lb. of sugar and 1 lb. of honey that has been twice clarified by boiling, skimming, and fining. When the sugar is quite dissolved, put the liquor into your perfectly sweet cask, add for every 20 gallons a gill of finings, and next day stop it close up. At the expiration of three months rack it off from the lees into another vessel, clean out its own cask well, and return the wine into it with a gallon of French brandy to every 20 gallons of the wine. Mind that the cask is full, and that, if it is not beautifully clear, you fine it with the whites of eggs. In six months you may bottle it, and keep it six months in glass if you wish it to excel.

Another method.

For 18 gallons.

Choose a fine dry day for gathering the fruit, which must be perfectly ripe, and carefully picked from all refuse; for if this particular is not strictly enforced, your wine, however well made, will never become fine, or acceptable as to flavour. To every gallon of berries put the same quantity of river water, and bruise with the hands, until the whole is a fair, equal pulp. Now, with a hair sieve, or rather with

a hair bag, separate the liquor from the pulp, and add to every gallon of it 2½ lb. of the best raw sugar, and the juice and rinds of 12 lemons, to 18 gallons of wine. Put it next day into your sweet cask, and bung it close. In two months, if fine, you may bottle it, and a year afterwards commence drinking it. This will be estimable wine if well managed and proper time allowed it to become clear and mellow.

BILBERRY WINE.

Pick your fruit carefully from all leaves, stalks, and other refuse; then take—

Cold soft water	6 galls.
Cider, rather sharp . . .	6 galls.
Raw sugar	20 lb.
Bilberries	8 galls.

Ferment them altogether in a sweet tub; when all disturbance has ceased, add—

Tartar in powder	4 oz.
Ginger, powdered	4 oz.
Lavender and rosemary leaves	1 handful of each
Rum or British spirits . . .	1 gall.

After remaining two days to macerate, put the whole, strained through a hair sieve, into a sweet cask; put on the bung lightly until all hissing has ceased; then bung it up securely, and in two months bottle it. Keep it six months in glass, and it will prove a delightful dry wine.

CLARY WINE.

Half a century ago clary wine was esteemed fashionable, and you met with it in most respectable establishments. That we may succeed in producing this wine "the best of its kind," I subjoin the following formula in variety:—Take Malaga raisins 24 lb., pick and chop them very small, put them into a tub, and to each pound of the fruit add a quart of cold soft water; let them macerate ten or twelve days, stirring them twice a day. Keep it closely covered up the whole time, then strain it off, transfer it into a sweet cask, with half a peck of the tops of clary when in flower; stop it close down for six weeks; you may then bottle it off, and in three or four months begin to use it. This wine is liable to leave an unusually large deposit in the cask; it is therefore advisable to draw it off by means of plugs, or by tapping it pretty high up the cask. Age would improve it when it is in the glass.

Another method.

To 5 gallons of river water put 15 lb. of best refined sugar, and the whites of 5 eggs beaten to a froth; boil and skim this effectually, and when quite clear set it aside to get cold. Then put the liquor into your cask, and add 2 gallons of recently gathered clary flowers and tops, stripped from the branches just when the blue flowers are beginning to fall off, and ¼ pint of active yeast; agitate these

twice a day for four or five days, then bung the cask close. I think that the addition of a pint or so of the flowers, when in full bloom, three weeks after the wine is casked, would enhance the flavour where it is desirable; if added, the liquor should be stirred well, but only once. When it has stood in the wood five or six months, bottle it, and keep it other six months in that state.

A third method.

Boil 15 gallons of soft water with 45 lb. of sugar, skim it constantly while it is needful; when cool, or at 75 deg. Fahr., put 2 quarts of the liquor to ¼ pint of fresh ale yeast, and, by degrees, add a little more of the ferment. In one hour pour the small quantity to the bulk, and then the mixture on to the clary flowers that have been gathered at a dry time of the day; the quantity of flowers may be 14 quarts, and if to be gathered from your own garden, and you cannot get sufficient therefrom, you may add them as you can procure them, keeping account of the additions. When this is done, and all signs of fermentation have disappeared, bung up your cask, and let it remain four months unmolested. Then rack the wine from off the lees, remembering to plug it rather high up the barrel, empty the dregs out from the used barrel, put back the liquor into it, and add a gallon of cognac brandy, and suspend in a small muslin bag, from the bung, ½ oz. of oily cloves and 12 green

laurel leaves, shredded. Stop it up effectually for eight or ten weeks; then bottle it and keep it other six months before drinking it. If necessary, you should fine it with a small portion of American isinglass dissolved in a quart of the wine.

SAGE WINE.

Boil 26 quarts of spring water 1 hour, and when it has cooled down to 70 deg. Fahr., put 26 lb. of Malaga raisins, picked, rubbed, and cut small, into it, also ½ bushel of shred sage, just gathered, and fresh ale yeast ½ pint. Stir all well together, and let it stand in a tub, covered up warm, for six or eight days, stirring it every day twice at least. Next, strain it through a sieve, put it into an appropriate cask, and let it work three or four days; then make all safe, bunging tightly. When it has stood a week, put to it 2 quarts of any good sound wine, white, and bottle it when fine. Keep it six months in bottle; and indeed no *numerous* family should allow the stock of sage wine to be run out, or, in other words, should omit to make a small cask of it every second year. For it may not be generally known that a cold, with shivering, being contracted (and who is safe from such attacks?), may be most certainly arrested in its dangerous progress by taking at bedtime a small tumblerful of this valuable specific; a gentle perspiration ensues with refreshing sleep, and for this once the doctor has no occasion to be sent for. As a

valuable deobstruent, there is perhaps no means so certain, safe, and acceptable as sage wine, properly made.

Another method.

Take 30 lb. of good Malaga raisins, picked clean from the stalks and other rubbish, and cut into small pieces, and 1 bushel of green sage, shredded, as soon as gathered; then boil 6 gallons of water, and wait its lowering to 70 deg.; pour this upon the sage and fruit, and let them macerate six or seven days, stirring twice each day. Then strain out the liquor from the pulp, put it into a cask, and so let it remain six months; then draw it out into another cask, and when fine, bottle it. In two months it will be fit for use, but will be greatly improved by keeping four months longer—nay, even for a year.

BALM WINE.

Put into a sweet tub a peck of balm leaves, and pour upon them 4 gallons of boiling water, letting them remain all night, closely covered up, to infuse; next morning strain the liquor through a sieve or coarse canvas bag, and put to each gallon of water 2 lb. of good Muscovado sugar, stirring well a quarter of an hour. Get the whites of 4 eggs, put them into a saucepan, and whisk them well before they become too warm; when the scum begins to rise take it off, and continue skimming so long as is necessary. Then let your liquor be boiled three-quarters of an hour, that it may *head* the better; so work it

four days, put it then into a sweet cask, bung it close, and when it is fine, bottle it. Six months will render this a serviceable wine.

A second method.

Put a bushel of balm leaves into a tub, pour on 8 gallons of scalding water, let them stand all night to infuse, then strain out the liquor in a hair sieve, and add to each gallon of it 2 lb. of sugar, stirring well, to accomplish the thorough dissolution of the sweet. Commit it now to the fire, adding the whites of 4 eggs, well beaten. When the scum begins to rise, remove it from the fire; then let it again boil half an hour, skimming all the time. Put it then again into your tub, and work it with good ale yeast, the liquor being at 70 deg. Fahr., and being stirred every two hours. Work it effectually during two days, then put it into a clean cask and bung it safely. In three months, if fine, bottle it, and in three months more commence drinking it.

BRITISH GRAPES WINE.

For 18 gallons.

Raw sugar	20 lb.
Red beetroot, sliced . .	4 lb.
Red tartar in powder .	6 oz.
Coriander seed, bruised .	2 oz.
Brandy	6 quarts
Cold soft water . . .	8 galls.
Grapes	100 lb.

Ferment these together with frequent agitation, strain, and, when the hissing is at an end, put the liquor into a perfectly sweet cask, bung close down, and in six months, if fine, bottle it, using the best corks and wire. This is intended to be a *mousseux* wine, and consequently must not only be kept in a cool place, but narrowly watched, to guard it from bursting the bottles. In three months it will be a valuable wine, if nicely and accurately managed.

Another method.

When your vines are well grown, so as to produce full clusters of the fruit, care should be taken to take away some part of the leaves which shade the grapes and hinder their coming to maturity; but in a hot season this will not be prudent if done carelessly, lest the sun, by its powerful influence, should draw away the juice through the skins, and cause them to be in a material manner withered. Do not wait until the fruit is all ripe at once, for then some would be over-ripe, bruised, and become withered, before the later matured ones arrive at perfection. Every second day, therefore, pick off the ripest and choicest grapes, and spread them in a dry shady place, that they may not be burst by heat. By this means, those grapes which remain on the tree, having more heat to nourish them, will grow larger and be sooner ripe; and when you have got a sufficient quantity, put them into an open vessel and mash them well by hand, or if the

quantity be too great, get a flat piece of wood (not deal, which would give an unpleasant taste to the wine), fasten it to the end of a staff, and gently press them with it, taking care to break the stones as little as possible, as the wine would thereby acquire an acrid taste, which would be always objectionable. Having brought your fruit to a pulp, make a tap two or three inches above the bottom of your cask; then tie a hair cloth or canvas over the receiving tub, and let out as much of the liquor as will run of itself without any pressure. This will be found to be the best. Then take out the pulp and subject to light pressure, by degrees, till the liquor is sufficiently drained off, after which take a cask well matched, and pour the liquor into it through a sieve and a funnel to stop the dregs, letting it stand with a slate over the bung-hole to ferment and refine for twelve or fourteen days; then draw it off gently into another cask, and put on the slate as before till the fermentation is completed, which you may discover by its coolness and pleasant taste. Thus, of your white grapes, you may make a good white wine, and of the red, a wine much resembling claret. But should it want colour, the white grapes, if not too ripe, will give it a fine Rhenish flavour, and are very cooling. There is also another kind of grape that grows in England, which has much the smell of musk, and this may, by the help of a little sugar, be brought to produce a fine rich wine much resembling canary or muscadine, and altogether as

pleasant. For any alteration in colour, see claret colouring. This product will be well worth keeping six months in the wood, after which you may bottle it, corking and sealing effectually, and then you may keep it a year more in bottle.

Another method.

Take ripe grapes gathered on a fine dry day, put them into a press, squeeze them lightly so as not to break the stones or seeds, strain the liquor well, and let it settle in a cask; then draw off the clear juice into a well-seasoned and matched cask, and stop it up for forty-eight hours; then give the carbonic acid gas vent, by boring a small hole near the bung, and introducing an oaken peg or spile. In two days stop it up close again. It will be ready for tapping in four months, and will not be much inferior to a French wine. Season your cask well; use scalding water first, then cold water, and afterwards match it.

WINE FROM VINE LEAVES.

We are indebted to the fruit of the vine for the best wines in the world, andthe leaves, young shoots, and tendrils of that plant, are also capable of being converted to this use. It was no unnatural arrangement that the leaves, &c., might equally be used for the purpose of making wines. Experiments were accordingly instituted in France for this purpose, and they have been repeated in Great Britain with success.

From vine leaves, water, and sugar, wines have been thus produced in no respect differing from the produce of the unripe fruit, and consequently resembling wines of foreign growth. The leaves of the claret vine produce wine of a delicate red colour (clairet); the leaves may be taken at any period from vines which have been cultivated for this purpose, and from which no fruit is expected. The leaves are best when young, and must be gathered with their stems; 40 or 50 lb. of such leaves being put into a tub of sufficient capacity, 7 or 8 gallons of boiling water are to be poured on them, in which they are to infuse twenty-four hours. The liquor being poured off, the leaves must be pressed in a press of considerable power, and must afterwards be washed with an additional gallon of water, and again pressed. The sugar, being varied from 25 to 30 lb. is then to be added to the mixed liquors, and the quantity being made up to 10½ gallons, the process recommended in the case of gooseberries is to be followed.

MARIGOLD WINE.

Marigolds must be gathered when quite dry; pick the flowers from the stalks, and to each gallon of them put a gallon of water, and 3½ lb. of lump sugar; then proceed as directed for cowslip wine. When you bottle it, put a tablespoonful of brandy into each bottle. Those persons who gather these flowers from their own gardens may not be able to get a sufficient

quantity at once; but if got a few at a time, measure as you pick them, and spreading them on a coarse cloth, lay them on a broad floor and dry them in the shade, turning them about afterwards, that the desiccation may be equal. When you have a sufficient quantity, put them into the barrel and pour the sugar and water to them. I have never yet been able to praise any ladies' marigold wine, nor did I ever venture to bestow any time, labour, and expense upon the produce of any of this species.

PARSNIP WINE.

For every 4 lb. of sound parsnips, washed, peeled, and boiled till tender, add 1 gallon of boiling water, including the liquor they were boiled in; drain, but do not bruise them, for then there would be great difficulty in getting the wine clear. To each gallon of the liquor add—

Best refined sugar . . .	3 lb.
Crude tartar	½ oz.
Coriander seeds, bruised .	½ oz.

When cooled down to 75 deg. Fahrenheit, put in a little new, brisk yeast, let it stand in a clean tub four or five days in a warm room, then tun it, and bung it closely when the fermentation has ceased. October and March are recommended as the best seasons to make it in. It must remain a year in the cask, then bottle it, corking and sealing well, for if properly made, it will open brisk and sprightly.

AN EXCELLENT FAMILY WINE

may be made of equal parts of red and white and black currants, ripe cherries and raspberries, well bruised and mixed with soft water, in the proportion of 4 lb. of fruit to each gallon of water. When they have stood three days, strain and press out the juice, adding 3 lb. of good moist sugar to each gallon of the liquor. Let it stand open three days, during which time stir it frequently, and skim it when necessary. It is then to be put into a cask, and left to work a fortnight, a ninth part of French brandy is then to be added, and the bung fastened down. Keep it two or three years, and it will prove a rich and valuable wine. When bottled, use the best corks and wax them well, that the wine may be presented at table lively and bright.

AN EXCELLENT WINE FROM MIXED FRUITS.

An excellent, strong, family wine may be made from the mixed berries and pulpy fruits of a garden, as follows:—Take equal parts of red, white, and black currants, raspberries, ripe cherries, gooseberries, and strawberries, or such of them as can be procured, bruise them well together, cherry-stones and all, taking away, however, the stalks of the raspberries, as they would hold too much of the juice. To every 2 quarts of this fruit pulp add 1 gallon and a quart of boiling water, stir it up well for fifteen minutes, and strain it

through a cloth, getting as much juice as possible by pressure; to each gallon of liquor put 3 lb. of good Muscovado sugar, boil it all together one hour, skimming it all the time; then let it cool and remain open for three or four days, having put to it when cool enough a slice of toasted bread well besmeared with fresh active ale yeast to float in the centre. Thus let it work fourteen days, filling up the cask every day. Add a quart of cognac to every 9 gallons, and bung it tight. In six months you may tap it and bottle, and when it has matured you will have a rich, full-bodied wine at a very trifling expense.

QUINCE WINE.

Some fifty years since there was a fashionable rage for quince wine, and in good society you scarcely entered a parlour without being solicited to "taste our nice quince wine;" but "tempora mutantur, et nos mutamur in illis," brandied imitation champagnes, made chiefly in the counties of Kent and Somerset, and East India pale ales of Burton, are drunk in hundreds of thousands bottles annually. I have partaken, however, of prime quince wine in the warmer localities alluded to above, and in gratitude annex the following formula:—

FAVOURITE RECIPES FOR MAKING IT.

Take twenty fine large quinces, gathered on a dry day, and rub off the fur from them, very cleanly,

with a coarse cloth; then grate them as near to the core as you can, but not letting any of that part escape into your pulp. Boil a gallon of spring water, and add your pulp to it; then let it boil gently, or rather simmer only, a quarter of an hour longer, skimming thoroughly, and strain the liquor into an earthen vessel. Now, to each gallon of the liquor add 2 lb. of loaf sugar of the best quality, stirring until the sugar is quite dissolved. Then cover it up closely, and thus let it remain twenty-four hours, after which bottle it off, taking especial care that not the least of the sediment goes into the bottles. It is absolutely necessary that the fruit should be fully ripe.

Another method.

Take quinces fully ripe, wipe off the fur with a linen coarse cloth, cut out the cores, bruise the fruit as you would apples when making cider, and press out the juice thoroughly by the aid of a hair cloth; to every gallon of this add 2½ lb. of double refined sugar, stirring them well until the sweet is totally dissolved. Then pour your liquor into a perfectly sweet cask, and suspend in the liquor, half way down the cask, a little muslin bag in which three or four pebbles (to keep it immersed) have been put, as also (for 18 gallons) ½ oz. of cloves, and the same quantity of bitter almonds. Bung it down close, and let it remain so for six months, then tap and bottle it, if convenient, in March. If you desire a mellow,

sound wine, possessed of flavour and *bouquet*, keep it a year longer in the bottles, well corked and waxed.

Another method.

Gather ripe quinces on a fine clear day, rub off the down or fur, and lay them on clean dry straw for ten days to sweat. Cut them in quarters, take out the cores, and bruise them well in a mashing tub with a wooden pestle. Squeeze out the liquid part by pressing in a hair bag under a cider or cheese press, then strain this liquor through a fine sieve, and warm it gently over the fire, but do not suffer it to boil. Now sprinkle into it some refined sugar in powder, boil fourteen or fifteen large quinces in a gallon of water and a quart of any good white wine, adding 2 lb. of loaf sugar, roughly broken. The fruit must be thinly sliced, the better to acquire an equal pulp. Now strain off the liquor, and mingle it with the natural juice of the quinces; put this into a cask, but so as not to fill it, and blend them well together by stirring; then let it stand to settle. Put in the whites of two or three eggs; then draw it off. If it is not sweet enough, add more sugar, in powder, and a quart of the best Malmsey. Now boil ¼ lb. of stoned raisins, ½ oz. of cassia bark, and ½ oz. of sweet almonds, in a quart of the wine, until it has been reduced one-third part. Strain this, and put it into the cask while the wine is fermenting. Let it rest, tightly preserved from the air, for a year, and bottling

it in March or October, keep it in glass six months longer. This recipe, if duly attended to, will furnish you with a generous, soft-flavoured wine.

ORANGE WINE.

When the fruit has attained its maximum of sweetness, buy the best you can command, for, in the end, it will prove to be the cheapest, put 12 lb. of double refined sugar, and the whites of 8 fresh eggs, well beaten, into 6 gallons of clear spring water, and boil them together one hour, skimming all the time. When it has cooled down to 62 deg. Fahr., put to it the juice of 50 Seville oranges, 6 table-spoonfuls of fresh ale yeast, and let it stand forty-eight hours; then put it into another vessel with 2 quarts of good Rhenish wine, and the juice of 12 lemons freed from the seeds. Let the lemon juice and wine and 2 lb. of best loaf sugar stand closely covered for twelve hours before it is put to the orange wine, skimming off every particle of the seeds. The lemon peels must be put in with the oranges; half the rinds must be put into the vessel. Let it stand twelve or fourteen days, then bottle it. This will be a good, palatable, dry wine, if kept in bottle six months, well corked. This is the proper time, when directing to make orange wines, to recommend, in all instances, that the thin outside yellow rind of oranges and lemons should be taken off with a sharp knife and used as soon as possible, for by this means you ac-

quire that part of the fruit which is absolutely necessary to flavour and *bouquet*, and which would be destroyed by the white pithy substance underneath.

A second method.

Squeeze the juice from half a chest of Seville oranges in the prime of their condition, and dissolve in it 48 lb. of double refined sugar, broken in lumps; take then half the quantity of the yellow peels (disengaged before the fruit was squeezed), put them into another tub, and pour upon them 10 gallons of boiling water; let this stand till it is cold, then put the liquor to the sugar and juice in your cask. When the fermentation has ceased, add in the cask 2 quarts of French brandy; let it stand six months, then bottle it. You will find it a nice, lively wine, for 18 gallons.

A third method.

Take the thin yellow rinds of a chest of Seville oranges, put them into a cask, and add to them 4 gallons of British brandy, or rather of good malt spirits, and 5 gallons of white candy syrup, which any wholesale confectioner will supply to you. Thence draw off the juice twice a week for a month, and to every gallon of the best raisin you can procure add one pint of this flavour. Stir the liquor well, and fine it with a little isinglass which has been thoroughly dissolved in a quart or more of your wine,

and in the course of a week it will be fit for consumption; but were it belonging to my own collection of a few choice British wines, I should decidedly keep it in the wood four months, then bottle it off for six months longer. In this recipe you may perhaps discover the correctness of my advice regarding the use of orange and lemon peels in reference to wine making, for you would have got but a poor specimen of flavour by using the peels with the white part adhering. Besides, that spongy substance (the white pith) would have imbibed a great quantity of your spirituous extract of the peels. On the other hand, they would suggest the squeezing of the peels; yes, indeed, but if used in any unadvised quantity, it would, by its disagreeable bitter, have rendered the whole of the liquor ill suited to fastidious tastes.

LEMON WINE.

Pare off thinly the yellow rinds of 50 middle-sized lemons, and let them steep in a gallon of French brandy a fortnight; convert your lemon peels (the thin rinds only) into a syrup by simmering them (not boiling) with 2 lb. of the best loaf sugar and 2 quarts of river water in a closely-covered vessel, to retain all the aroma and flavour. The simmering may not continue longer than five minutes. When the peels have gone cold, let them remain in steep four or five days, then boil 10 gallons of water with 40 lb. of best refined sugar half an hour, put this into a tub, and when cold, add

the brandy, peels, and their syrup, all into the cask; stop it close, and let it stand nine months, or, better, a year. This will be a very choice wine, possessing strength of body, with mildness and mellowness of flavour. If at any time your orange and lemon wines should not be sweet enough at the tunning, you may add syrup made as above to your taste, at the time of fining the wine. It will not cause further fermentation, the finings acting in some degree to prevent it, and will be fit for use equally soon.

Another method.

For 18 gallons.

To 15 gallons of soft water add 32 lb. of genuine honey, and 15 lb. of Malaga raisins, picked, stoned, and cut into small pieces. Let them macerate fourteen days, stirring daily. Then draw off the liquor, and add to it the juice and rind of 40 lemons, and 2 quarts of brandy, which must be cognac; proceed as in former similar cases. Put it into the cask, and let it remain six months to fine.

ELDERBERRIES WINE.

For 18 gallons.

Gather the berries in fine weather, or omit it till next season. They must be fully ripe, and cleanly picked. Put them into your copper along with ½ gallon of water to prevent scorching, and keep on a slow fire until the berries begin to sink in the copper;

strain the juice through a sieve by hand, or with slight pressure in a canvas bag or hair cloth, and to each gallon of the juice thus obtained put 3 gallons of soft water, and to each gallon, when mixed, 3½ lb. of good raw sugar. Return the juice again into your copper and let it boil for an hour, skimming it well all the time; then draw it off into a tub, and when the heat is about 70 deg., take some yeast, spread it upon a toast, and put it into the tub to your wine. Let it work in the tub two nights, then draw it off into your cask, and add to it, for 18 gallons—

Fine racy cloves	1 oz.
Jamaica ginger, bruised . .	2 oz.
Allspice, bruised	2 oz.
Almonds, bruised	1 oz.

Put the bung in slightly, until it has ceased hissing, then stop it close, and in three months it will be fit to tap. Keep it cool in hot weather, as you can make these wines almost at all times, by boiling up the fruit and keeping it by you after inspissating it. It is in this state termed rob of elderberries.

A second method.

Take 60 lb. of Malaga raisins, to which add 16 gallons of water, let them steep twelve days, then draw off the liquor, and put it into your copper with 4 gallons of elder juice, which must boil ten minutes, being well skimmed, then add—

Raw sugar	14 lb.
Jamaica ginger	¼ lb.
Cloves	1 oz.
Allspice	1 oz.

all well powdered; boil again for one hour, clearing it well. Then draw it off, and put toast, covered with yeast, as before. After two days, put it into a sweet cask, and when it has ceased working, bung it close down. It will be fit to tap at Christmas. Bottle it in February or March.

A third method.

Add to every gallon of elderberries 1 gallon of water, and let them stand to macerate twenty-four hours, stirring often; then put it into your copper, and boil it briskly for half an hour; then draw it off, and strain it through a sieve. Put the juice into the copper a second time, and to every gallon of liquor add 3½ lb. of moist sugar, 2 oz. of ginger bruised, and 1 oz. of allspice, to every 6 gallons; boil them together for half an hour, then remove it into a shallow tub to cool. When at 70 deg. put to it a toast covered with yeast, and let it work well. When the fermentation has totally ceased, put it into your cask; stop it up close, let it stand four or five months, then bottle it. This wine will be excellent, possessing all that rich and full flavour so much admired by the best judges of this wine.

ELDER-FLOWER WINE.

In 6 gallons of spring water boil 18 lb. of powdered loaf sugar, and the whites of 2 eggs well beaten; skim it thoroughly, and put to it ¼ peck of elder flowers; do not let it remain on the fire, but stir it till cool, and then add 6 spoonfuls of lemon juice, 5 of yeast, and mix them well into the liquor, by stirring every day for three or four days. Put 6 lb. of the best raisins, stoned, into a sweet cask, and turn the wine upon them. Stop up the cask effectually, and keep it in rather a warm situation. You may bottle it in February or March, so as just to enjoy this fine wine, which equals Frontignac, in the warm summer months.

GINGER WINE.

For 18 gallons.

Boil well for half an hour 56 lb. of the best raw sugar with 15 gallons of water, taking off the scum until no more rises. Bruise 1 lb. of the best Jamaica ginger, pare and cut 36 lemons, and when the syrup has boiled sufficiently and is free from dross, pour it, boiling, upon the lemons and ginger, and let them remain together until the syrup is lukewarm; then squeeze them out, and put into the tub a little brisk yeast. Suffer it to work three days, then put it into your cask with a little isinglass dissolved, and let

it stand three months. It will then be fit for use. Put half the lemons and ginger into the cask.

Another method.

To 56 lb. of Malaga raisins add 20 gallons of soft water, and let them remain fifteen days in maceration; then press them off, and put the liquor into your clean, sweet cask. Now add Jamaica ginger 1 lb., bruised, and 1 gallon of well clarified syrup; let these remain four months, and you possess a very fine wine.

A third method.

To 20 lb. of best Muscovado sugar put 7 gallons of soft water, boil it for half an hour, skimming thoroughly. Take next 2 quarts or so of the liquor, and add to it 9 oz. of the best ginger, bruised. Now put it all together, and, when nearly cold, cut 9 lb. of sun raisins very small, and put them into a 9-gallon cask, with 1 oz. of isinglass. Slice 4 lemons into the cask, taking away all the seeds, and pour the liquor over them, with ½ pint of fresh yeast. Let it remain unstopped for three weeks, and in four months it will be fit for bottling. There will be 1 gallon of the sugar and water more than the cask would contain at the tunning; this must be kept to fill up with, as the wine works out of the cask, for it is requisite for the cask to be kept full all the time it is working. I have heard recommended two-thirds

Malaga and one-third Muscatel raisins, instead of the sun raisins.

THE FINE RICH TOKAY WINES OF HUNGARY.

A gentleman of intelligence sent to Bohemia in the year 1859 by a first-rate Leeds firm to superintend the erection of very extensive machinery there, and who on his revisiting England to bring his family away to the Continent, after an absence of about two years, promised to procure for me all the information within his power as to the making of these far-famed wines, fulfilled his engagement by putting me in the possession of documents from which I was enabled to deduce the following instructions, which may prove acceptable to some operators in the practice. The famous Tokay wines consist of three different denominations, viz.:

The Essentz
The Ausbruck
The Máslás

The grapes are gathered in chosen weather, dry and clear, and when just at maturity; such as are fit are carefully placed on trays of tasteless wood, and subjected to a northern aspect, while some others are left on the vines to attain a similar state of perfection, and so on, until the whole produce of the fruit is collected. In a short time the grapes become very sweet, somewhat withered, and begin to lose some of

their juice. They are now carefully picked over, selecting the finest, and rejecting any decayed or unsound ones.

To produce the Essentz, which is the most highly esteemed of the three sorts or qualities, the grapes are put into the sweetest tubs possible, having their bottoms perforated with hundreds of small holes, through which the juice is allowed to run into a receiving pan placed beneath, and without any other pressure than that of their own weight. This is called extracting the Essentz.

But when little or no juice is got by this operation, the grapes are removed to vats and gently pressed with open hands, pouring on to the fruit, in small quantities, at various times, some *must* of new wines, the best that can be procured, or of a liquor made for the purpose of highly clarified honey, soft water, and the smallest portion of bay salt (say not more than ½ oz. to the gallon of water); boil them together for half an hour, skimming well, then allow to get cold. This must not be too sweet, and if mixed, half and half, with old Madeira or sherry wine, the latter will be preferred if a peculiarly soft flavour is wanted. The result of this process is the base for the "Ausbruck."

To make the Máslás, a large quantity of less valuable *must* is to be poured over the same fruit, and pressed well, as in making the common wines.

The "Essentz" can only be got in the best fruit-

producing years, for "quality is almost always the companion of abundance," as also it is only in favourable years that the "Ausbruck" can be made to perfection. It ought to be of a fine bright topaz colour.

The Essentz is sweet and luscious to the highest degree, and is esteemed more as a curiosity than as pleasing to the palate, like the foreign claret, which many persons take renown for delighting in, although in reality they prefer many other wines, at half the cost. On the Ausbruck the reputation of the Tokay wines depends; it is sweet and rich without being cloying, strong, full-bodied but mild, bright and clear, and possessing a peculiar flavour of most exquisite delicacy. When got at "private tables" it is styled the finest wine in the world.

The Máslás is a much thinner wine, rather sweet, with a preponderating flavour of the *dried* grape. All the three should be aged, to be in excellence. Thus twenty years is not too long for them to be kept in a proper equal-temperatured cellar.

In Hungary, a ducat (ten shillings) per bottle is often charged for it, although some of the wines have only obtained five shillings per bottle.

To the Essentz, I have added only a very little of the best old West India Madeira, lightly diluted, to the fruit while in process of fermentation, with great success. A pint of the wine to each gallon of the grapes.

For the "Ausbruck," add Madeira in larger quantity, mixed with honey, mead, wine, genuine honey boiled, well skimmed and fermented. Try also the same process with old pale sherry instead of Madeira.

The Máslás must taste fully of the dried grape or of best Muscatel raisins. Filter and rack at the proper time, for colour must be had, with a brilliant clearness.

Some of my own black small cherry cordial, added to the "Ausbruck" when perfected, gave a peculiarly rich and mellowed pink wine.

SECTION III.

CIDER AND PERRY.

THE fermented juices of apples and pears are not classed with wines, although in their qualities they seem to be effervescing wines as much as champagne. It will be quite sufficient herein to describe the process for making cider, as the same will apply equally to perry.

A manuscript, emanating from an author of much consideration nearly two hundred years ago, states "that crabs and wild pears, such as grow on the wildest and barren cliffs, and on hills, make the richest, strongest, and most pleasant and lasting wines that England yet yields, or is ever likely to yield."

It is the opinion of many cider growers, both in Worcestershire and Herefordshire, that the merit of cider depends on the proper separation of the fruits, and that those only which are red mixed with yellow

are proper to make fine cider. But a majority of them are decidedly of the opposite notion, and adopt the practice of mixing all sorts of apples with at least one-third part of red-streaked crabs, as also with sharp, rough-flavoured pears, which give to the liquor, after being kept a year or more, a very delightful briskness and spirit. During my sojourns in these counties, I have been strongly impressed with the idea that, by a persevering, peculiar management of these juices, we could obtain a full-bodied and spirituous liquor, and that a large intermixture of ripe crabs with apples of various qualities will afford excellent and well-flavoured wines. The fruit should remain on the trees until a slight shake would disengage them; they should then be kept in layers from six to eight inches deep, on dry clean straw, exposed to the air and sun, and not used until perfectly mellow. This will effect a great improvement, if subjected to a free current of air, the fruit having been gathered on a dry clear day; for otherwise, the fermenting process will be tardy, irregular, and troublesome. A judicious mixture of the fruits could only be acquired by practice, and upon the same estate; but this should not deter the operator from commencing his interesting ventures. The product of a first year's cider making could not involve loss, even if disappointment were his reward, since he would be sure of cider vinegar, which is highly prized in all culinary processes. The process of bringing the fruit to pulp should be slow, and free access of

air insisted upon as necessary for fine qualities of cider, most probably by the absorption of oxygen. While the fermentation is going on the casks should be kept in the open air, as under sheds, and when the liquor becomes clear, it should be racked off into another dry, sweet vessel; this will prevent its ferment beginning afresh; for let it be borne in mind that, although the juice does not ferment while encased within the apple, yet it possesses the property (like unto the grape) of self-ferment when set free by expression. The being cognisant of this fact will govern the cider maker in the parsimonious use of yeast, which, under certain circumstances, will not be much required, nay, rather, be totally needless.

As soon as the fermentation is stopped, which may be discovered by the clearness of the liquor and its quietness, it should be drawn off into a sweet cask, and the dregs run through the coarsest of your flannel bags; the fined liquor must be returned into the cask, but not so if it discover the least tendency to acidity, which it often does in one warm night only, which consequently should be guarded against by opened doors and windows, &c. &c. If the cider, being racked, remains limpid and perfectly quiet, it must remain unmolested until the spring. But sometimes a gelatinous scum forms on the surface; in which case transfer the liquor into another vessel that has been well fumigated with sulphur, for if it were allowed to sink into the bulk it would be dangerous. Should there be a disposition in the liquor to

ferment with vehemence, it will be necessary to rack it off again, until a thorough cessation of the hissing noise is obtained. This, although troublesome, is indispensably necessary. And, as is sometimes the case, if the liquor seems not disposed to ferment, a small quantity of sound active yeast must be mixed with a bowlful of it and poured gently to the entire quantity, stirring it in well for ten minutes; and this is to be particularly observed at the commencement of cold or damp weather. In April the cider is to be racked into the casks in which you intend to store it; these must have been previously well scoured with scalding water, after that rinsed with cold water, and allowed to dry thoroughly before you use them. They must be filled nearly to the bung, and stopped closely, provided that all signs of renewed fermentation are absent. Cider made from proper fruits and well managed will retain a portion of its sweetness in the cask for four or five years. At two years old is the more usual time to bottle it, for it will then be sparkling and brisk, and, if moderately rich, would retain that property for twenty years and upwards, much depending on the corking of the bottles, which but too frequently is done in a slovenly manner. I recommend the soaking of the corks all night in some of the liquor.

The redundant fruit of a rather large garden, or of a small orchard, should the produce not be considered first class as to flavour, or where the so-named dignity of the occupant forbids the sending

the garden produce to market, under any of these circumstances, may be economically applied to this use. It appears, also, that small quantities of fruit may be made use of on equally advantageous terms as larger ones.

The end of the autumn, October, on many accounts, is to be preferred for this process, as the liquor then will be more easily managed; that is, the weather being cooler, without any chance of a return of warmer, there will be less risk of the liquor running all at once into the acetous state, and the fruit, fully ripe, will possess the fullest amount of saccharine matter of which its species admits. The pressure employed should be administered as gently as possible, which will conduce to its running away into the vats much clearer than by a hurried and forced process. When the cider is intended to be kept long, it must remain to acquire age in the wood, and great attention paid to the vent-peg at top, as, the vessel requiring to be quite full, an accumulation of carbonic acid gas might cause rupture of the cask, with loss of all the trouble and expectations.

The juice of fruit not perfectly ripe will be found to be sourish at first, but it will become sweeter by fermentation. In the early part of the cider season the fermentation is much more active, and is completed in a shorter space of time; in short, I have partaken of excellent cider that I was assured had been not more than five or six days in going through the whole of the processes.

I must warn the operator in the clearing of his juices before they are put into the cask in which they are intended to remain long, for if any small particles remain in the juice they will very soon give to the whole a disagreeable decayed flavour, such as a judge in cider would immediately condemn as utterly worthless.

The utensils for making cider and perry for domestic use are very simple and inexpensive; a strong tub for breaking up and mashing the fruit to a pulp, and a screw-press, hereinafterwards described (see list of utensils, page 94), being all that are required, in addition to the tubs and coolers made use of in every family that brews its own beer.

In pounding and crushing the fruit only a moderate quantity should be wrought at a time, say not more than half a peck; for thus the work will not only be done in less time, but more perfectly. The fruit being reduced to a fine pulp, this must be subjected to pressure in a hair-cloth bag, or one of open canvas, and this operation must be performed by a gradual and steady application of the screw, and allowing ten minutes or more to elapse between the turns; by this means the juice will be produced in a transparent state, and less trouble will be incurred with the dregs. A sufficient quantity of juice being obtained, it must next be fermented, and a cask chosen that will correspond with it. This cask should be set on end, a bung-hole being required at the top,

through which the yeast will discharge itself during fermentation, and being confined by the chimb of the barrel, will fall back into the liquor, leaving the gross true yeast on top outside of the cask. The temperature of the air must be considered, as well as the state of ripeness of your fruit. If the natural state of the atmosphere be not under 65 deg., it will not require the aid of artificial heat; but if your operations are being carried out later in the season, say October, the casks must be placed near a fire, and the temperature thereby raised, some preferring 70 deg. to 75 deg.; this, however, will be governed by watching the state of the fermentation. In very cool weather more of the yeast may be kept back in the cask than in the warmer weather of September, for it will be wanted in the liquor to sustain the weak action of the ferment where the quantity of juices acted upon are but small. To ascertain when the liquor is sufficiently fermented has been alluded to, and the stillness, limpidity, and state of sweetness will be sure guides. By letting down a lighted candle into a vessel not full is an old and sure test that fermentation has totally ceased. When the fermentation is at an end, the cider must be drawn off into a fresh, sweet cask that has been well sulphured, and bunged tight down, minding to have the vent-hole furnished with a proper oaken peg, and that adjusted as circumstances may require. It may be tapped in a month for draught cider, or, if for bottling, it soon

gets ripe and mellow, the bottles being laid on their sides. Observe, that when made in cool weather it takes a longer time to become clear. If your cider combine sharpness, sweetness, and a pleasant acidity, we shall conclude that it has been well managed, especially in the fermenting process.

I profess myself opposed to the "doctoring" of all fermented liquors, but at the same time approve of our having them cleverly under our command, not detracting from their natural qualities. For any further advice on fermentation, the reader is referred to the article on "Fermentation," Section X.

The juices of apples, pears, and crabs can be purified previous to being casked, by isinglass finings in small quantity; and mustard-seed, suspended in a little bag in the cask, will prevent cider from turning sour; lime and chalk I will have no connexion with, for many and good reasons.

Another method.

For 18 gallons of cider.

Take pippins, pear-mains, or parreys, before they are fully ripe, and let them lie a day or two in a heap to sweat; then, having rejected any unsound ones, pound them to a fine pulp, and press out the juice by gentle degrees and put it into a hogshead or other large cask, leaving it room to work well; it should have no vent except a small hole near the hoops; put in 3 or 4 lb. of good raisins, and 3 lb. of moist sugar,

to assist and improve the fermentation. When it has ceased hissing, rack it off into your cask, and that it may be fine and mellow, put rather more than half a pint of isinglass finings to it. Now stop it up closely, leaving a vent-peg driven home rather tightly, but watch it, as most likely a second fermentation may set in. If so, put in 3 lb. more raisins, and 3 oz. of fresh-made charcoal in fine powder, enclosed in a piece of muslin rag. Stop it up again close, and bottle it off in March. This will assuredly be prime cider. Never mix summer and winter fruit together, but if you want your cider of extra strength, use more fruit, pressing it less heavily, for the first juice produced from all fruits is the choicest. The French wine makers will satisfy you on this particular.

The Apparatus

necessary for making cider and perry on a small scale is very simple, and procurable at a slight expense. It consists of a strong tub about twenty inches diameter and the same in height, made with extra strong staves and bottom, and firmly bound with iron hoops, to resist the repeated strokes of a heavy pounder. This must be made of any hard wood that is heavy, in shape like the top section of a loaf of sugar, with a staff fixed into its apex, and the bottom perfectly flat. A small quantity only of apples or other fruit to be smashed, should be put into the tub at one time, as this will much expedite the operation. From this operation

the crushed fruit must be transferred to the canvas or hair-cloth bag, and that placed under the press, which should be used but very gently at first, to ensure the juice running out into the receiver in a slight stream, and quite clear.

The Press,

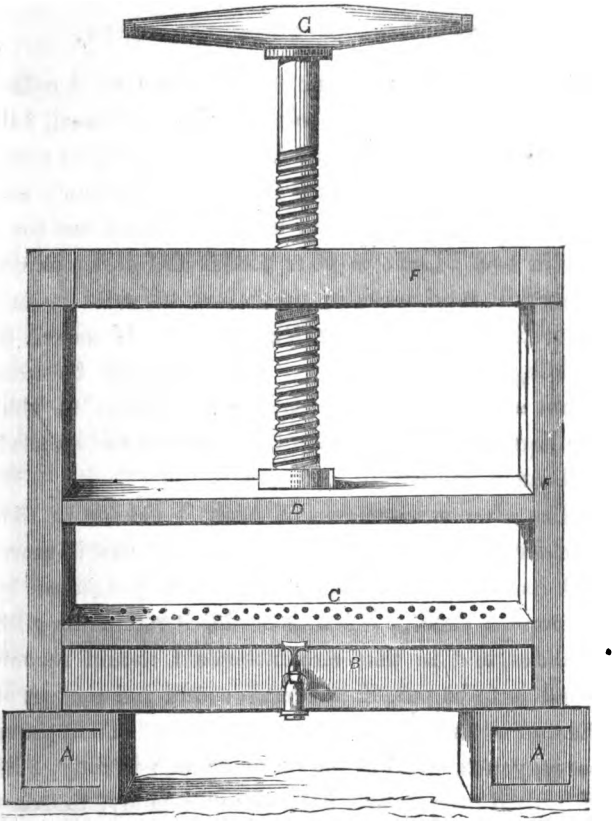
as will be seen by the annexed diagram, will consist of the following parts:

1. A wooden trough about a yard long, 18 inches wide, and a foot deep. Within this must be placed a movable tray made of tin, and perforated, sides and bottom, with many holes; this must be elevated by ribs of wood above the real bottom about 4 inches, so that the juices, when pressed out, may run from the tray into the wooden trough, and thence by a cock into a receiver placed for that purpose.

2. A pressing-board to be acted upon by the screw as it descends, which must be made of a rectangular piece of tasteless wood, and of such dimensions as to be worked easily up and down in the trough.

3. The screw, made of hard wood, with a lever-bar of the same material near the top, will complete the apparatus, and fully answer the purpose of more expensive machinery.

These will be found to answer excellently for obtaining juices from gooseberries, currants, cherries, plums, elderberries, rhubarb, and many other fruits and vegetables.



A.A. The Stands.
B. Trough to receive the juice.
C. Tin perforated Tray.
D. Pressing Board, elevated.
E. The wooden Screw.
F.F.F. Frame.
G. Lever Bar.

MANAGEMENT OF CIDER AND PERRY.

To improve the flavour of your cider put 1 gallon of cognac brandy highly coloured with cochineal, 1 lb. of alum, and 3 lb. of sugar-candy, powdered, to every hogshead of cider, mixing them well together; and when you intend to bottle, leave your bung out for a day or two. Look to your bottles and corks, as nothing will tend more to the injury of cider or any other liquor so soon as inferior corks. If soaked in scalding water before being used, they will be more pliant and serviceable. Laying the bottles so that the liquor may always keep the cork wet and swelled, will much preserve it.

The after management of perry is similar to that of cider; but change of temperature affects it more, and its future merit cannot be so well judged of by its present state. When in bottle, it retains its good qualities, and in that circumstance I should recommend it to be put, if to remain sound and perfect at the end of the first succeeding summer. To improve perry, you must add 1 gallon of French brandy, 2 lb. of bruised prunes, and 2 lb. of sugar-candy, to every hogshead, mixing them well in by continued stirring.

SECTION IV.

CORDIALS AND LIQUEURS.

FROM France we obtain most excellent liqueurs, which are produced principally from cherries in the department of the Isère, also from many parts of Italy from the same fruit; yet these do not suit the palates of the English, merely because they are not sufficiently "*spirituous*," and their fine mellow softness of flavour and inimitable *bouquet* are lost upon us. These foreign but highly discriminating judges cannot but ridicule what they would term our depraved tastes, where nothing in the way of choice beverages will please, except it be highly "brandied." Certain it is that the wines held in the highest esteem in Paris would hardly be saleable in London, or even in Frankfort.

We have not the advantage of the beautiful *vins de liqueur* of France, but proceed to give a few recipes, whereby to make some cordials that may suit some British palates.

BRITISH CORDIALS AND LIQUEURS.

BLACK CHERRY CORDIAL—NO. 1.

Take any quantity of small black cherries when fully ripe, pick out all the decayed, bird-pecked, and unsound ones, and wash them in a sieve in plenty of cold hard water for half a minute only. Next, put the fruit into a clean earthenware pan, take away the stalks, and place the accepted cherries with their juice in unglazed stone jars in layers three inches thick, alternately with pounded and sifted loaf sugar, of which you will allow ½ lb. to every quart of the fruit, shaking it down in the jars, but not using pressure. When the fruit is all expended, fill up the jars with proof spirits or other good malt spirit, and covering slightly from the air, let it remain until the next day. Then, if needful, add more spirit, so as perfectly to cover the fruit up to within two inches of the very rim of the vessel, and upon that pour olive oil the thickness of half an inch. Now stop up with good corks, which make secure from evaporation with mastich, wax, or pitch, and bury the jars in dried sand in your cellar, there to remain unmolested for one year. In this, and in all similar cases, attach a label denoting the

strength of the spirits, and proportion of sugar employed.

When it is a year old the spirit must be poured off the fruit, fined with alum, and transferred to glass bottles for stock; and as it will be required as an ingredient for some fine liqueurs, an extra quantity of this should be made, and kept up every year or second year, according to requirement. As to the fruit, it should be well washed in a small quantity of fresh spirits and left in it to digest a week, then strained, fined, and either bottled by itself, or added to the first product.

BLACK CHERRY CORDIAL—NO. 2.

Black cherries, picked and stoned .	20 quarts
Half of the kernels, bruised	
Cinnamon, bruised	½ lb.
Green laurel leaves, shredded . . .	3 oz.
Refined sugar in powder	2½ lb.
Proof spirit	2 galls.

Put these into stone jars in layers, filling nearly to the tops, use the best bungs possible, and secure them with wax. In three months decant off the liquor and fine it, putting it into small glass bottles, well sealed for preservation. At the end of six months it will be a fine cordial, and of highly restorative and invigorating properties. If not considered sweet enough at the fining, add more powdered sugar.

CURRANT LIQUEUR.

Take a bushel of red and white currants just coming to full maturity, pick out any damaged or blighted ones, and subject the bulk to gentle pressure in a hair cloth, so as to acquire all the juice, then pass this liquid through a sieve to get rid of the seeds. Then to each quart of the juice, add—

Refined sugar	¼ lb.
Bitter almonds, bruised . . .	½ oz.
Cloves	½ oz.
Cinnamon	½ oz.
Laurel green leaves, shredded	
Juice of two Seville oranges	
Thin yellow rind of one	
Good malt spirits	1 pint
Raisin wine, aged	1 pint

Put the whole of these, well blended together, into an earthenware jar or jars, which cork and seal effectually, shake the bottles daily for a week, and set them aside for three months. Now filter the liquor from the jars through a flannel jelly-bag, and fine it with alum as elsewhere directed; wash out the jars, return the liquor into them, and add, for every quart, your own fish glue, ½ oz., previously dissolved in a small quantity of warm raisin or other white wine; give it the colour of claret with tincture of red beetroot, secure the corks, which should be of the best quality,

and wait three months to obtain a most beautiful liqueur.

PEARL GOOSEBERRY LIQUEUR.

Gather your white and yellow berries as they become fully ripe, laying them on clean straw, uncovered (they will improve by keeping a few days), until you have got enough for your purpose, and accepting none that are in the least blighted, decayed, or crushed. Press out the juice, which must next be passed through a sieve, and, in a clean earthen pan, add to every quart thereof—

Refined sugar	¼ lb.
Juice of 2 Seville oranges	
Thin yellow rind of one	
Bitter almonds, blanched and split .	¾ oz.
Cinnamon (cassia), broken . . .	½ oz.
Cayenne pepper	1 drachm
Rectified spirits	1 pint
Raisin wine	1 pint

Stir all these well together for ten minutes, after which immediately transfer them to earthenware jars, then cork and seal them well, and leave them three months to infuse thoroughly. Next strain off the liquid through flannel, fine it down as before directed, wash your jars very clean and fill them with the product, adding your own fish glue, ½ oz., to every quart, or

more of it if you prefer that your liqueur be palpably mucilaginous, for it will in no way alter the flavour of the compound, but rather serve to maintain its integrity.

DAMSON LIQUEUR.

Take 5 quarts of Orleans plums, and 7 quarts of greengages, fully ripe, take off the skins, slice the fruit into a clean earthenware pan, break all the stones, and reserve half the kernels for your present use. Mash the sliced fruit into a pulp, and put it into a wide-mouthed stone jar (not glazed) with the juice, and add—

Coriander seeds, bruised . . .	1 oz.
Cloves, bruised	¾ oz.
Thin yellow rinds of 6 lemons	
The kernels, bruised	
Bitter almonds, bruised . . .	2 oz.
Powdered loaf sugar	1½ lb.
Good two-year-old whisky . .	2 quarts
Raisin wine or sound mead . .	2 quarts

Bung closely down, and secure with wax, set it aside until you can procure from fully ripe prune damsons 6 quarts of their rich juice, which add to the whole mass, taking care that it is equally diffused throughout. It may now be left well corked and secured from evaporation for two months, when it must be strained off, filtered, fined, and treated with the gelatine as choice dictates. The corking, sealing,

&c., &c. being properly conducted, age will only be requisite for the realisation of a very rich and luscious product.

CAPILLAIRE.

Double refined sugar . . .	12 lb.
Lisbon sugar	4 lb.
6 eggs, well beaten	

Boil these in 3 gallons of water, skimming thoroughly, strain them through flannel, and while yet warm add 1 drachm of essence of lemon.

Another method.

Refined sugar	8 lb.
Soft water	1 gall.

Clarify this in boiling with the whites of 2 eggs well beaten, and when nearly cold add to it rose-water 1 pint.

RATAFIA.

For 5 gallons.

100 peach or apricot stones	
Bitter almonds	½ lb.
White sugar-candy . . .	1½ lb.
Good malt spirits	3 galls.
Rectified spirits of wine .	3 pints

Bruise the stones, almonds, and candy, mix them thoroughly with the spirits of wine, then add water 6 quarts, and finally the malt spirits.

RED RATAFIA.

Black-heart cherries . . .	12 lb.
Small black cherries . . .	2 lb.
Raspberries	1½ lb.
Strawberries	1½ lb.

Take away the stalks and other refuse, bruise the fruit and let it remain so for fifteen hours, then press out the juice, and, to every pint of it, add 2 oz. of powdered loaf sugar. The sugar being totally dissolved, add 3 quarts of proof spirit; mix well for ten minutes, and then run the liquor off through a filtering bag. Then take—

Mace	1 oz.
Cloves	2 drachms
Cinnamon	4 oz.

Bruise the spices, put them into a still, with a gallon of proof spirit and 2 quarts of water, and draw off a gallon with a briskish fire. At your pleasure, add as much of this spicy spirit to the ratafia as will make it agreeable; one-fourth part is generally adopted. If intended to be kept long in store, this quantity may, with advantage, be augmented.

DRY RATAFIA.

Cherries	15 lb.
Gooseberries	15 lb.
Mulberries	4 lb.
Raspberries	6 lb.

Pick out all stalks and refuse, bruise the fruit, and let it remain twelve hours, taking care not to allow it to ferment. Press out the juice, and to every quart add 3 oz. of loaf sugar, powdered. The sugar being dissolved, filter it through your flannel bag, and, to every 5 pints of the liquor, add 1 quart of proof spirit, and as much of spirit drawn from spices as in the former recipe. Bung it up close in stone bottles, which cork and seal effectually. At the end of two months fine it, and proceed as recommended before.

USQUEBAUGH.

Malaga raisins, stoned and cut	2 lb.
Dates, stoned and cut . . .	2 oz.
Cinnamon, bruised	2 oz.
3 Nutmegs, bruised	
Spanish juice, bruised . . .	1 oz.
Mace, bruised	6 scruples
Cloves, bruised	6 scruples
Coriander seeds	2½ drachms
Jamaica ginger, bruised . .	3 drachms
Apricot kernels, bruised . .	1 oz.
Sun raisins	1 lb.
Dates	1 lb.
Proof spirit	2 galls.

Bruise the mace, cloves, kernels, cinnamon, and coriander, in a mortar; steep them twelve days in the

spirits; boil the raisins and licorice in 3 quarts of soft water till reduced to 1 quart, then filter it off through flannel, draw off your spirits, dissolve 4 pounds of lump sugar in 1 quart of water, mix them well together, and add them to the spirits. Then fine the product. Steep some saffron in spirits, and squeeze it in, until you have acquired the colour you wish. If to be green, boil spinach or other esculent herbs, and squeeze the juice into the spirits, or use sap green.

REAL IRISH USQUEBAUGH.

This ancient compound is made in the highest perfection in the old town of Drogheda, and is drunk out of small dram glasses, as a panacea for all the evils man is subject to. It is made thus:

French brandy	1 gall.
Raisins, stoned and cut . .	1 lb.
Cardamoms, bruised	1½ oz.
Cinnamon	1 oz.
Cloves	1 oz.
Nutmegs	1½ oz.

Crush the spices in a mortar, and infuse them in the spirit fourteen to sixteen days, then filter the liquid through a flannel bag, and add powdered loaf sugar to your taste.

YELLOW USQUEBAUGH.

Mace, cloves, and nutmegs, each . . .	1 oz.
Coriander seed and angelica root, each .	4 oz.
Allspice, aniseed, and caraway seeds, each	1½ oz.
Saffron and annatto, each	1 oz.
Refined sugar	4 oz.
Rectified spirits	3 galls.

Crush the spices roughly and separately, then altogether, and enclose them in a muslin bag, for infusion with the spirits during twenty days; then filter through flannel, bottle and cork, and seal very securely. It is highly improved by age.

PEPPERMINT CORDIAL.

For 5 gallons.

Oil of peppermint . . .	4 drachms
Spirits of wine	½ a gill
Refined sugar	4 lb.

Kill the oil by mixing with the spirit, agitating it continually; dissolve the sugar in 1 gallon of soft water; let it simmer over the fire half an hour, constantly skimming it, and, when cool, add the ingredients, stirring it well; this done, put it to 4 gallons of spirits. Fine it down with alum. It is indispensably necessary that the sugar and water should be simmered and well skimmed, or you may fail in your attempt ever to fine the cordial.

Another method.

For 10 gallons.

Refined sugar, powdered	6 lb.
Strongest spirit of wine	½ pint
Oil of peppermint	7½ dwts.
Rectified spirit, 1 in 5 under hydrometer proof	6½ galls.

Set up a sweet 10-gallon cask on its end, pour in it the above ingredients, first well mixed together; having put in the bung very tightly, shake the cask well for ten minutes, then fill it up with cold river water that has been boiled half an hour. Let it stand a week, then fine it down, and draw and bottle it in a month.

CARAWAY CORDIAL.

For 5 gallons.

Cassia, bruised	3 oz.
Caraway seeds, bruised	4 oz.
Refined sugar, bruised	4 lb.
Essential oil of caraway	5 dwts.
Sound malt spirits, one to five	3½ galls.

Pound the cassia and seeds in a mortar, and steep them four days in 3 pints of the spirits. The oil must be killed with the spirits, as before directed, and the sugar simmered with 6 quarts of the water, and well skimmed; now put all into a clean 5-gallon cask, fill up with soft water that has been boiled and

allowed to get cold. Bung closely; in a week fine it down, and in another fortnight draw and bottle it off.

Another way.

Clean old malt spirits . . .	7½ galls.
Caraway seeds, bruised . . .	2½ lb.
Aniseed	½ lb.
Dried rosemary tops	2 oz.
Dry yellow rind of lemons . .	1 oz.
Cloves	1 oz.

Distil, and draw off as long as it runs pure. Sweeten at your pleasure with powdered loaf-sugar, so as not to be cloying to some palates.

A third method.

For 10 gallons.

Oil of cassia (cinnamon) . . .	1 oz.
Oil of caraway	4 oz.
Simple syrup	2 galls.
Soft water, that has boiled . .	1 gall.
Spirits (40 deg. under proof) .	7 galls.

Kill the oil in a small quantity of the strongest spirits; put all the ingredients into a perfectly sweet cask, put the bung in tightly, cover it with oiled coarse linen cloth, and sand over that, since we cannot too carefully guard against evaporation, not only in this, but in all similar cases, when employing spirituous liquors and essences. The seemingly large quantity

of essential oils in this recipe is requisite, in consideration of the weakness of the accompanying spirits, and the sugar used, for the pungency of the compound must be maintained at all events. In a large family this must prove a valuable acquisition.

ANISEED CORDIAL.

For 5 gallons.

Oil of aniseed	7 dwts.
Refined sugar	4 lb.
Good malt spirits	3½ galls.

Dissolve the sugar thoroughly in a gallon of soft water and simmer it, skimming as long as it is necessary. When cold, add the oil, killed in spirits, put the whole into your sweet cask, put in the bung, roll the vessel about for a quarter of an hour, then fill up with soft water boiled and cold, and finish as in other compounds of this character.

Another method.

Take 3 drachms of the oil of aniseed and ¼ pint of rectified spirits of wine, shake them well together in a glass bottle until you are certain the oil is completely killed. Pour this to 2 gallons of clear malt spirits, and, adding thereto 3 pints of simple syrup, shake it well together for ten minutes, then dilute it with soft water boiled and cold, to your liking. But observe

that it frequently occurs in the making of this compound, no matter by what formula, that it turns milky, which is caused either by employing too much water, or by the oil not being properly killed in the spirit. The remedy in this case is to filter the liquor through a little bag containing magnesia (mind it is genuine), about 1 oz. of which would be sufficient for this quantity of the cordial.

CITRON CORDIAL.

For 5 gallons.

Refined sugar	5 lb.
Fresh Turkey figs	16 lb.
Oil of orange	4 dwts.
Oil of cassia	1 dwt.
Essence of lemon	5 dwts.
Malt spirits (three years old)	4 galls.

Steep the figs in 2 quarts of the spirits for ten days, then draw off the infusion, without pressure; mix the orange, cassia, and essence of lemon with enough of the spirit that they may be effectually killed. Now dissolve the sugar in 3 quarts of soft water, simmering and skimming as before directed; put to this your oils and essence, blending them well; now add the spirits, and finish as the other preceding cordials.

A second method.

For 3 gallons.

Fresh figs	12 lb.
Prunes	4 lb.
Essence of lemon	1 drachm
Oil of cloves	1 drachm
Syrup of sugar	1 quart
Spirits of wine, 22 under proof .	7 quarts

Mash the fruit and macerate it in the spirits for a week, then filter it off. Kill the oils with strong spirit, put all these into a clean cask, which, being secured by a bung, roll about for ten minutes twice or thrice a day for a week. Filter again through flannel, bring the liquor to a luscious flavour with refined powdered sugar, cask it, and be careful in the fining, bottling, corking, &c. &c., as recommended before. In six months this should deserve the approbation of all cordial drinkers.

CINNAMON CORDIAL.

For 5 gallons.

Cinnamon, highly pungent .	1 oz.
Oil of orange	1 dwts.
Refined sugar	3 lb.
Old malt spirits	4 galls.

Dissolve, and clarify your sugar with 1 gallon of soft water as before directed, add your ingredients, and

put all to the spirits. Agitation is particularly recommended in the whole of these spiced compounds. In a week or ten days, filter and fine down, and a month afterwards, draw off into glass bottles, which must be well corked and sealed. Keep this reviving, genuine cordial, or the greater part of it, twelve months, and it will fully repay you.

Another method.

For 5 gallons.

Oil of cinnamon (cassia) . .	¾ oz.
Oil of Seville oranges . . .	½ drachm
Well clarified syrup . . .	1 gall.
Strong gin, or LL whisky .	3 galls.
Soft water boiled, cold . . .	1 gall.

Kill the oils thoroughly by the agency of the strongest spirit you can get, however small the quantity. Treat this compound similarly to the foregoing. It will be thick like cream and very sweet, well adapted to be brought to a most luscious and estimable cordial by age. I would keep a few pint bottles of it two years, well knowing its character.

CLOVE CORDIAL.

For 5 gallons.

Fine racy fresh cloves .	1 lb.
Oil of cloves	4 dwts.
Double refined sugar . .	4 lb.
Clean malt spirits . . .	4 galls.

Kill the oil as before directed, mix the ingredients with 1 gallon of river water, boiled and well skimmed, with the sugar. The colour of this would be rusty, therefore you can colour it with a quart of elderberry juice if in or near the season, or with your own tincture of red beetroot, and fine it accordingly.

Another method.

Fresh racy cloves, bruised .	1 lb.
Allspice, bruised	2 oz.
Coriander, bruised	¼ oz.
Laurel green leaves, bruised .	¾ oz.
Proof spirit	2 galls.

Macerate these with the spirit forty-eight hours, put all into a still, and draw off 7 quarts, which sweeten at pleasure with refined loaf sugar.

CORIANDER CORDIAL.

For 5 gallons.

Coriander seed . . .	5 lb.
Oil of orange	10 drops
Muscovado sugar . . .	3½ lb.
Good malt spirits . .	3 galls.

Bruise the seeds in a mortar and set them to steep in the spirits for fifteen days, and shake them well twice a day at least. Dissolve the sugar in 1 gallon of soft water, and boil, or rather simmer it, for half an hour,

skimming it well. When cold, add all the rest; let it remain a fortnight to digest, then fine down, and proceed as before directed.

CHERRY BRANDY.

Bruise 8 lb. of the small black cherries in a mortar, put them into a gallon of cognac brandy, and stop them down for ten weeks. Strain off the liquor, add 1 lb. of refined loaf sugar. So, in proportion, for any other quantity.

A second method.

For 2 gallons, excellent.

Collect 25 lb. of Morello cherries when just ripe, cut off about an inch of every stalk, leaving the remainder attached to the fruit; this is rather important, for the flavour of the compound depends upon the observance of it; and moreover, the *tannin* property is found to reside in the stalks of such class of fruits, particularly so in raisins. Puncture every cherry with a large needle, put them into spare quart pickle jars, with a lump of loaf sugar, or its equivalent of syrup, and four or five cloves, pour upon the cherries French brandy, or two-year-old whisky, enough to cover them, cork slightly for forty-eight hours, then examine, and if wanting, add spirit; then cork securely and wax them. If not sweet enough, add powdered loaf sugar, and the colouring the cordial is at your option. The spirit required will be about 2 gallons.

AMERICAN CHERRY-BOUNCE.

Ripe red cherries . . .	4 lb.
Black cherries . . .	2 lb.
Raspberries	1 quart
One stick of cinnamon	
Ten cloves, bruised	
Thin yellow rind of two oranges	

Let these macerate in 1 gallon of French brandy, or three-year-old malt whisky, for five or six weeks, then filter through your flannel bag, fine, and bottle it, adding two lumps of loaf sugar to each bottle. The fruit and spices are to be kept apart. The bottling, corking, and sealing, will meet with due attention. Keep a portion of this excellent liqueur twelve months.

LOVAGE CORDIAL.

For 5 gallons.

Full-grown celery . . .	2½ lb.
Cinnamon, bruised . . .	10 dwts.
Mace, bruised	10 dwts.
Oil of caraway	12 drops
Refined sugar	4 lb.
Rectified spirits of wine .	2 quarts
Clean malt spirits . . .	10 quarts

Boil the sugar with 3 quarts of soft water half an hour, cleansing thoroughly; cut the celery small, freed from the spurn ends, or roots; steep the celery

and spices in 1 quart of the spirits five or six days; then add the oil killed in spirit. Put all these into a vessel that will hold 5 gallons, and fill it up with boiled soft water that has got cold. Bung close down for a month, then tap it, filter, fine, and bottle. This light compound is rarely seen now, but half a century ago great benefits were said to arise from a frequent and continued use of it. With aged persons it was more immediately connected. Colour with burnt sugar a pale yellow or straw colour.

RASPBERRY BRANDY.

Take equal quantities of brandy and raspberry juice, deprived of the seeds, add a little oil of cinnamon killed with strong spirits of wine, sweeten it with powdered loaf sugar, set it aside for three weeks, and then, if necessary, fine it, and transfer it to small glass bottles, corking and sealing securely.

LOVAGE CORDIAL.

For 10 gallons, strong.

Fresh roots of lovage	2 oz.
Valerian, celery, and sweet fennel, each .	2 oz.
Essential oil of caraway and savin, each .	½ oz.
Rectified spirits of wine	½ pint
Proof spirit	6 galls.
Refined sugar	6 lb.

Macerate the roots and seeds in the proof spirits fifteen days, dissolve the oils in the spirits of wine,

and add them to the unsweetened cordial, drawn off from the other ingredients; thoroughly dissolve the sugar in the water required for making up, and fine it, if necessary, with alum.

BLACKBERRY CORDIAL.

Make a simple syrup with 1 lb. of loaf sugar to each pint of soft water, boil it until it is rich and thick, and clarified with whites of eggs. Add as many pints of the juice of fully ripe blackberries as there are pounds of sugar, and half a nutmeg, grated, to every quart of the syrup. Boil twenty minutes; when nearly cold add a gill of one-fourth proof brandy, or two-year-old malt whisky, for each quart of syrup. Bung or cork close down, let it remain a month, and, if necessary, filter and fine it down. It should be kept in small bottles, that a lavish use may not be made of it, for, insignificant as it may seem, it is worthy of all esteem in a family of growing up persons. In bowel complaints it is incomparable.

CARAWAY WHISKY.

Digest 1 lb. of caraway seeds in 2 gallons of old malt whisky, together with 4 sticks of cinnamon, bruised, and ½ oz. of thin yellow rinds of Seville oranges, for one month; then filter through flannel. It will be of a delicate straw colour. Sweeten it slightly with powdered white sugar-candy.

CEDRAT CORDIAL.

Double-refined loaf sugar, powdered	½ lb.
Oil of cedrat	4 drachms
Highly rectified malt spirits . . .	2 galls.
Tincture of red beetroot	1 pint

Rub the sugar with the oil in a glass mortar with a glass pestle, and sufficient of the spirit to kill the oil and incorporate all its virtues. Put the liquor, having added the whole of the spirit, into a perfectly clean, sweet vessel, and let it abide a month closely bunged down. Then add the tincture, more or less, to obtain a rich pink shade; put it into small glass bottles, use the best corks, and wax them efficiently. Keep it six months, nay, a year or more, as a first charactered cordial.

The cedrat is a fine Italian fruit of the citron species, not common in Great Britain, but highly esteemed in Southern Europe. The oil is procurable in London, and more easily in Paris.

NUTMEG CORDIAL.

Aniseed, bruised	¼ lb.
Nutmegs, bruised . . .	½ lb.
Rectified spirits	5 galls.

Digest in a sweet vessel for twenty days, then filter through flannel, and add cold soft water, previously boiled, and powdered loaf sugar to your taste. Colour it a deep red with tincture of beetroot. Bung it

down close, and keep it three months to become mellowed.

CURAÇOA LIQUEUR.

Oil of bitter almonds	1 drachm
Oil of cassia	1 drachm
Brazil wood, in powder	2 oz.
Syrup, well clarified	2 quarts
Thin yellow rinds of Seville oranges	4 lb.
Rectified strong malt spirit	5 galls.
Green laurel leaves, shredded . . .	1 oz.

Kill the oils effectually with a sufficiency of strong spirit, put the whole of the above into a perfectly sweet vessel, bung it closely, and roll it about every day ten minutes for three weeks, adding 1 gallon of cold soft water at the end of a fortnight. Colour it with saffron, filter it through flannel, and bottle, cork, and seal it effectually. This will be equal n every respect to the product of the West Indies.

HIPPOCRAS.

Canella, bruised	2 drachms
Cinnamon, bruised	1¼ oz.
Cloves, mace, and ginger, each .	½ drachm
Nutmeg and cardamons, each .	½ drachm
Madeira wine	6 pints
Raisin wine	6 pints

Macerate all these, in a sweet vessel, during ten days, closely bunged down, and agitated often. Then strain

through a sieve, and afterwards filter through flannel. Return the cordial to the vessel, adding about 5 oz. of refined loaf sugar.

GINGER BRANDY.

Jamaica ginger, bruised . .	1 lb.
Best old malt spirits . . .	5 galls.
Coriander seeds, bruised . .	2 oz.
Laurel green leaves, bruised	3 oz.
Bitter almonds, bruised . .	1 oz.
Yellow rinds of 6 oranges	

Put the whole of these into a sweet vessel, which bung closely, shake it well every day (having kept back some of the spirits to admit of the agitation) for three weeks. Then run the liquor through your flannel bag, add the rest of the spirit, and so fill the vessel. If needful, fine it previously to bottling it; cork and seal securely. It will require age to become mellow, and will be of great service, when a year old, in making some other valuable liqueurs.

RATAFIA DE CERISES.

Morello cherries, their stones broken .	12 lb.
French brandy	12 pints
Bitter almonds, bruised	2 oz.
Cloves, bruised	1 oz.

Macerate for a month, strain, and squeezing the juice out of the fruit, filter, and add 2¼ lb. of powdered loaf sugar.

DUC DE MONTEBELLO'S (MARSHAL LANNES'S) LIQUEUR.

Rich ripe black cherries	4 lb.
Oil of caraways	2 drachms
Oil of cinnamon	1 drachm
1 nutmeg, grated	
Syrup	1 gall.
Brandy	2 quarts
Spirits of wine	½ pint
Fine mousseux wine of champagne	2 quarts

Smash the cherries in a sweet earthenware pan, kill the oils effectually in the spirits of wine, mix them all well together, and putting them into a clean stone jar, cork them up and seal them safely for six months; then strain and filter twice through flannel. You can colour it with red sanders wood, which will not in the least interfere with the flavour of the liqueur. If fine champagne is not at hand, brisk ripe perry may be substituted. Put it into pint bottles, and wait a year longer for some of it to embrace all its virtues.

CHAMBERTIN.

Bitter almonds, blanched and bruised	1 oz.
Green laurel leaves, shredded . .	2 oz.
Oil of cinnamon	1 drachm
One nutmeg, grated	
Cognac brandy	2 quarts
Chambertin, the favourite wine of Napoléon le Grand	6 quarts
Rich calf's feet jelly, the sherry wine flavour predominant	1½ lb.

Kill the oil in a little spirits of wine, dissolve the jelly in a quart of wine with gentle heat, put the whole into a stone jar, cork and seal securely, and let it remain a year. Then strain off and filter through flannel. The colour should be a deep straw, which annatto will impart.

SANSPAREIL LIQUEUR.

Red cherries, full ripe . . .	8 lb.
Small black cherries	4 lb.
Raspberries	2 quarts
Strawberries	1 quart
Cloves, bruised	1 oz.
Cinnamon, broken up . . .	2 oz.
Laurel leaves, green, bruised .	1½ oz.
Calf's feet jelly, dissolved . .	1½ lb.
Kinahan's three-year-old LL whisky.	7 quarts
Rectified spirits of wine . . .	1 quart

Pick the stalks from the fruit in a perfectly clean earthen pan, after all refuse has been taken away. Smash the cherries by hand, and, breaking all the stones, accept half the kernels only, which must be roughly bruised. Put the fruits, spices, and peels into a clean stone unglazed jar or jars, and pour upon them the whisky and spirits of wine; in the latter the laurel leaves may have macerated twenty-four hours. As soon as securely corked and sealed, shake the vessels well for fifteen minutes, which repeat daily without fail for a month, at the expiration of which time have

your jelly made, break bulk, warm 2 quarts of it, so that perfect dissolution may be obtained, then mix it with the mass, let it stand two days, strain and filter through flannel, return the liquor to its proper vessel, colour it as you please, make all particularly safe from evaporation, and keep it a year at least. It will justify the title it bears. When you bottle it off will be time enough to sweeten it by the addition of powdered loaf sugar, for thus you can make a few bottles sweeter than the rest if you desire to please all parties.

RICH LEMON LIQUEUR.

Rich ripe Seville oranges . .	1 dozen
Rich ripe Lisbon oranges . . .	½ dozen
Rich ripe lemons	½ dozen
Cognac brandy, or old malt spirit	3 quarts
Oil of cassia	1 drachm
Rectified spirits of wine, strongest	1 quart
Best loaf sugar, broken . . .	4 lb.
Jelly of calf's feet	2 lb.

Wipe the fruit with a soft cloth, and pare off the thin yellow rinds carefully, which immediately put into a glass jar, with a pint of the spirits of wine to infuse two or three days. Kill your oil with the remaining pint of the strong spirit. Make a fine clean syrup with the refined sugar, and a gallon of clear spring water boiled half an hour at least, and thoroughly fined with white of egg beaten to froth. Press out the juice from the fruit and pour it upon a hair sieve,

to avoid any pulp or pippins. Warm the jelly with 2 quarts of a mixture of your orange juice and spirit, the heat of 70 deg. being adopted, and when nicely incorporated, put it with all the ingredients into a proper clean and sweet vessel, and making all secure, agitate the same daily for a fortnight, and set it aside for three months to become mellowed. Then strain through a sieve, filter through flannel, and turn it a lively rich straw colour with saffron and annatto. Put it into small glass bottles, corking and sealing efficiently. At the expiration of eighteen months it will be a first-class liqueur.

MARASCHINO.

Morello cherries	9 lb.
Small black wild cherries	7 lb.
Spirit of roses	1½ oz.
Neroli, or spirit of orange-flower .	1½ oz.
Jessamine	¼ oz.
Cherry leaves	1½ lb.

Pick out the stalks, and press out the juice from the fruit, pound the stones and skins with the leaves in a mortar, and steep all together in a well-secured vessel for three weeks, add to it 4½ lb. of double-refined sugar, dissolve it thoroughly, and strain through a jelly-bag twice. Then add 4 quarts of rectified spirits of wine, stir it well for two days, and afterwards distil the mixture. This will be not inferior to the genuine Italian maraschino in any respect, of which, years

ago, I have sold many dozens of pint bottles at six guineas per dozen. That we may embrace every possible advantage in making this choicest of cordials, let the fruit be well selected, allowed to remain exposed to the atmosphere on dry clean straw for a week or more, and let the instructions here given be carried out strictly. Colour it as a deep claret with elderberry stock colouring, and conduct the bottling, corking, sealing, &c., with the greatest precision.

"NE PLUS ULTRA."

Green and yellow gooseberries, full ripe	56 lb.
White currants, full ripe	20 lb.
Green leaves of the cherry-tree	6 lb.
Bitter almonds, bruised	2 oz.
Rectified spirits of wine	1 gallon
Soft water	2 quarts

Pick out all refuse from the fruit, then mash it up into a pulp in a clean pan of earthenware. Let it remain a few days, when, if fermentation is not actively commenced, forward it by a toast spread with fresh ale yeast, and afterwards distil the mixture. The whole of the ingredients must undergo the fermenting process, and about 1 gallon must be drawn off by distillation. This will be very strong and full of flavour, and should be deposited in small glass bottles, the better to be used in a diluted state with

water that has been boiled, or taken in small quantities as exquisite drams. To be made up and sweetened for more familiar use, it will bear as much water boiled and cold as spirit, and about 1 lb. of powdered loaf sugar doubly refined to each pint.

CRÊME DE NOYEAU DE MARTINIQUE.

Bitter almonds, blanched .	1 lb.
Essence of lemons	2 drachms
Orange-flower water . . .	3 pints
Proof spirit	5 galls.
Loaf sugar	24 lb.
Soft water	2½ galls.

Boil the sugar with the water twenty minutes, skimming frequently, and fining with whites of eggs. Add to this syrup all the other ingredients, put them into a proper sweet vessel, cork securely, and agitate for ten minutes daily. At the end of a month, strain it through a hair sieve, filter it twice through a jelly-bag placed before the fire, fine with alum in powder, bottle, cork, seal securely, and keep three months.

I may be excused for advising that noyeaus and other compounds, partaking somewhat largely of bitter almonds, fruit kernels, and laurel, be taken in small quantities at a time, as the *prussic acid* principle is present in all of them, and the poisonous quality of the oil of the kernels is now very generally admitted.

PINK NOYEAU.

Mace, cinnamon, and ginger, each	1 drachm
Coriander seeds, bruised . . .	¼ oz.
Bitter almonds, blanched . . .	3 oz.
Refined sugar	2 lb.
Soft water	1½ pint
Proof spirit	2 quarts

Make a nice clear syrup of the sugar and water, boiling and fining it twenty minutes. Put it with all the other ingredients into a sweet stone jar, bung it closely, and let it macerate fifteen days, shaking it twice or thrice a day. Then strain off, filter, and fine down with powdered alum, ¼ oz. You will obtain a lively pink colour by the addition of tincture of Brazil-wood, inserted elsewhere.

FRENCH NOYEAU.

Celery, cut small	2 oz.
Kernels of peaches, apricots, nectarines, blanched . . .	3 oz.
Bitter almonds, blanched . .	1 oz.
Essence of lemon-peel . . .	2 dwts.
Essence of orange-peel . . .	2 dwts.
Refined sugar	½ lb.
Plump rich prunes	6 oz.
Cognac brandy.	1¾ galls.
Rose water, *q. s.*	

Bruise the kernels and almonds, split open the prunes, put all the ingredients into your proper vessel (furnished with taps, as mentioned elsewhere), and let it macerate three weeks. Then draw off into a vessel, to contain 2 gallons, the clear noyeau, and fill up to the bung with rose-water. In six months it will be fit to bottle, &c.; another very choice liqueur.

IMPERIAL NECTAR.

Wipe 18 fine lemons clean, take off the thin outside yellow rinds, which put immediately into a gallon of pale French brandy, and let them macerate, closely corked and sealed, sixty hours. Boil 3 lb. of double-refined sugar with 5 quarts of spring water for half an hour, and producing a nice clear syrup. Squeeze out the juice of the lemons, and strain it perfectly free from pulp and pippins. Now put together all these articles, and two fine nutmegs grated, stir well together three times a day for three days, and then pour to it 3 quarts of new milk, boiling hot, let it stand two hours, then run it through your flannel bag perhaps more than once, to get it beautifully fine. Bung it down close, and let it stand a week, it will then be fit to drink, but if you bottle it, you may keep it for many months; nay, it will improve by keeping.

SEVILLE ORANGE LIQUEUR.

Thin yellow rinds of 18 Seville oranges	
Cinnamon, broken	½ oz.
Brandy	3 quarts
Double refined sugar	1½ lb.

Macerate the orange rinds in the brandy, in a stone jar closely corked, for three weeks. Boil the sugar with 2 quarts of water an hour, very gently, and clarify with the white of an egg, then pass it through your jelly bag, and boil again until it has reduced one-half. When it is cold, strain the spirit into the syrup, add the cinnamon, bung down close, and let it remain intact for two months. Then pour off clear from the spice, bottle, seal, and cork securely.

CRÊME D'ORANGE.

Double refined sugar . .	9½ lb.
Tincture of saffron . .	¾ oz.
Orange flower water . .	1 quart
Spirits of wine	1 gall.
18 large Lisbon oranges, wiped clean	
Soft water	2½ galls.

Prepare a 4-gallon vessel, and cut the oranges in slices into it, add the spirits of wine and orange-flower water, and let them so remain three weeks, stopped up. Then boil the sugar with the water twenty minutes, making a fine clear syrup, which must stand to get cold. Add this syrup to the con-

tents in the cask, and also the tincture of saffron for colouring. Thoroughly fill the cask by the addition of ½ oz. of isinglass dissolved in a quart of Lisbon wine with gentle heat. Keep it six months, then bottle; a rich, delicate, fragrant liqueur that may remain in glass a year with great improvement.

A CHOICE CORDIAL.

For 2 gallons.

The richest cherry brandy	1 pint
Sound, clear orange wine .	1 pint
Red currant wine . . .	1 pint
Clear syrup	1 quart
Mace, bruised	¼ oz.
Cinnamon, bruised . . .	¼ oz.
Cloves, bruised	¼ oz.
Coriander seeds, bruised .	¼ oz.
Caraways, bruised . . .	¼ oz.
Oil of Seville orange peel .	½ drachm
Oil of Lemon peel . . .	½ drachm
Highly rectified spirit . .	2 quarts

Pour 7 pints of boiling soft water upon the spices and seeds, cork closely, and let them infuse three days; kill the oils in the spirits, and let them digest three days. Now mix all together, put into a sweet vessel, closely corked, and agitate daily for a week. Then wait fourteen days longer, when strain off, filter through flannel, return the clear liquor to the vessel, well rinsed out and dried, and keep three months.

A FINE CITRON CORDIAL.

(Per favour of a Lady in Malta.)

A dozen fine citrons, wiped clean	
Cinnamon, broken	1 oz.
Cloves and mace, bruised, each .	½ oz.
Pine-apple, sliced	6 oz.
Cognac brandy	1 gall.

Pare off the yellow rinds of the citrons, and dry them thoroughly in a current of air. Beat the remainder of the citrons and the pine-apple to a pulp in a mortar, and put them to the brandy, which must be closely stopped up in an earthenware jar for ten days. Then draw off the clear spirit from the dregs, and filter it clean. Take the rinds that were dried, beat them to powder, and enclose that with the spices in a fine muslin bag, and put them to the brandy, &c. Let these infuse three weeks, then pour it off through a flannel filter into a stone bottle, and keep it six months. You may then transfer it to small glass bottles, having first sweetened it to your taste with powdered loaf sugar of best quality, and colour it green with boiled spinach or sap green.

WEST INDIA SHRUB.

Old Jamaica rum . . .	2 galls.
Lime juice	2 quarts
Refined sugar	12 lb.

Dissolve the sugar in the lime juice with gentle heat, pour the rum upon it in a stone jar or bottle, cork it

securely, and wax the cork. Keep it six months, and you will find it admirably adapted for making punch. The longer it is kept the mellower it becomes.

SHRUB CORDIAL.

Put 2 quarts of Cognac brandy into a stone bottle, and add to it the strained juice of 5 lemons with the thin yellow rinds of 2, and half a large nutmeg sliced. Stop it up close for a week, then add to it 3 pints of good raisin wine, in which you have dissolved 1 lb. of rich calf's feet jelly, and 1¼ lb. of refined sugar, powdered. Set it aside for twenty days, then filter it twice through a jelly bag, and bottle it. It should be a rich, luscious cordial if kept a year in the bottles.

OUR OWN LIQUEUR.

(From a brother in Toronto.)

In the summer of 1862, I made 4 gallons of a compound from the annexed recipe, and purchasing all the ingredients of the very best kinds; indeed, I rode many miles to procure the raisin wine. I chose the gooseberries and currants just as they became ripe, laying them upon clean, dry, oat straw, and watching them daily: I threw away all that were in the least blighted, or otherwise not fit for my particular purpose. In about twelve days they had begun to shrivel, but I remarked that they had become much sweeter and higher flavoured. I then, with slight pressure in a

horse-hair cloth, expressed the juice, passed it through a sieve, and added to it 2 gallons of the whisky; these I blended well, stirring twice a day for three days. I then put the liquor into a perfectly sweet 4-gallon cask and bunged closely down, fearing evaporation. I waited three weeks and bought my plums just as they were becoming full ripe, I peeled them carefully, took out the stones, broke them, and, separating half of the kernels for my present use, I bruised them and put them to the rectified spirits of wine, corking well up in a small glass jar. I sliced the fruit into a clean earthenware pan, and bruised them into a pulp. I then took the bung out of my cask (the fruit having been exposed to the common air, with its oxygen, for three days and two nights), and emptied it, as also the infusion of the kernels, into the cask, and securely closed it again. In four weeks more, or thereabouts, I pressed the juice out of my ripe prune damsons, which I left to settle in the open air, and two days afterwards, with washing the *marc* in a little of the whisky, I got 3½ quarts of damson juice, measuring it after the dregs were separated from it by carefully sieving it first, and then filtering it. Breaking the damson stones, I took half of their kernels, rubbed the brown skin off them, and again opening my cask, put these, with the clear damson juice, to the contents of my vessel, and again put in the bung securely. I now commenced agitating the liquor by rolling the cask about for ten minutes each time, and that for three times in the

twenty-four hours. This was continued a fortnight, when, by order, I received from Liverpool half a dozen foreign pine-apples, of which I put the choicest slices only into my cask, along with the juice of another (2 lb.), beaten moderately with a paste-pin; the almonds, spices, and laurel, I suspended in a small muslin bag from the bung midway in the cask, with 1 lb. of good Malaga raisins, freed from the stalks, also in the bag, to sink it. The bung being again well secured, we continued the rolling of the cask once a day for a month longer; when, having tasted it, I thought it time to terminate my operations and "make it up," which I did by adding the rest of the whisky, 1½ lb. of rich calf's feet jelly, in which sherry-wine flavour was palpably predominant, and white sugar-candy, grossly pounded, as much as rendered the liquor rather sweeter than would be agreeable, knowing that the sweetness would gradually be diminished as the liqueur acquired the desired maturity by age. The raisin wine being used (a little warmed) as a vehicle to dissolve the jelly, was added, filling the cask clean up to the bung, which, being tightly fixed in, I covered with a piece of coarse linen cloth soaked in rape oil, and that plentifully supplied, to the exclusion of the air or the escape of the bouquet of the cordial, with small ashes from the grate. In the succeeding month of March I introduced a spile into the vessel, about midway of the cask, drew out a tumblerful of the liquor, and finding it perfectly limpid, put in a tap about two inches from the bottom, and in a

week afterwards drew it off into half-pint bottles, which were corked and well secured with wax, and stowed away in sawdust till Christmas. By this time it was pronounced excellent, which I take to be a very comprehensive description. In two months after that time I had scarcely a half-pint bottle left, so numerous were the requests of my friends and acquaintances. I should remark that, having treated the residuum in the cask with more spirit, some boiled water and sugar, and letting them stand a fortnight, I obtained a few bottles of a very nice light cordial. Here follow the ingredients made use of:—

Orleans plums, full ripe	2 quarts
Greengages, full ripe	3 quarts
Gooseberries and currants	13 quarts
Ripe old raisin wine	7 pints
Kinahan's three-year-old LL whisky	17 pints
Highly rectified spirits of wine . .	1 pint
Cinnamon, broken	2 oz.
Nutmegs and mace, bruised, each .	¾ oz.
Coriander seeds, bruised	1½ oz.
Bitter almonds, blanched	3 oz.
Green laurel leaves, shredded . . .	2 oz.
Malaga raisins, stoned	¼ lb.
Calf's feet jelly, sherry high flavour .	1½ lb.
18 apricots and peaches, of each	
12 quarts of ripe prune damsons to produce juice	7 pints
Powdered loaf sugar, *q. s.*	

ALUM FININGS,

For all sorts of Spirituous Compounds, Cordials, and Liqueurs.

Boil a drachm of the best alum in a pint of soft or distilled water till half of the water has evaporated. Put it into the cordial, &c., to be fined at the rate of only half a teaspoonful, made of the warmth of new milk, for every gallon. This quantity will be found not to affect the liquor, but care must be taken not to exceed it.

SECTION V.

THE MANAGEMENT OF FOREIGN SPIRITUOUS LIQUORS AND WINES.

THE principal object in the management of wine-cellars to be attended to, is to keep them of a temperate heat. In order thereto, you should be enabled to close up every aperture at your pleasure, so that there may be no admission of the external air. The floor of your vault should be well covered with sweet sawdust, not suffered to get too dry and dusty, lest, when you are bottling or otherwise exposing the liquors, some of it should fly into them. In many cellars it is absolutely necessary to have a stove or chafing-dish, to keep up a proper degree of warmth of the internal atmosphere, which may be regulated by a thermometer, always hanging up, but not touching a wall. In the summer season it will be necessary to keep such places as cool as possible, and in all cases to maintain steadily at "*temperate.*"

Should the weather be very cold when you are taking casks of liquors into your stock, it will be advisable to settle them quickly on the stillage, and put plenty of dry clean sawdust under and about them, and, if admissible, as to sorts, put a quart of French brandy into each newly-received vessel, or 2 quarts if of large dimensions. This precaution may avail you much, if, your liquor having age enough, you should decide on fining it.

RACKING FOREIGN WINES.

First examine your casks and tubs, and should they have any acid or musty smell, it must be discharged by matching with brimstone, and if not perfectly clean, they must be well rinsed out with cold water, and dried before using. Just when about to begin, pass a quart of brandy or of good malt spirits through each of the utensils (this may answer for a similar purpose again). Place your empty cask on the stillage, and apply it to your large funnel; if the wine you are about to rack off is already fined, you may use the large cock; then give your cask vent by taking out the bung, and have ready at hand two cans, that when you are emptying one, the other may be filling; by which means your business will be the much sooner accomplished. When you have got off all the clear you can without disturbance, run the lees or dregs through a flannel bag, and this, after settling for three hours or so, may be poured off clear

to that in the bulk. On no account put any of the thick, muddy sediment in. In racking wine that is not on the stillage, a wine-pump is to be preferred.

TO MANAGE AND IMPROVE RED PORT WINE, WHEN POOR AND THIN.

If your wines be sound, but wanting body, colour, and flavour, draw out 30 or 40 gallons, and return a similar quantity of young and rich wines, such as are brought to England specially for that purpose. To a canful of this new wine put 3 gills of colouring, with a bottle of good old Madeira or brandy, in which has previously been mixed ½ oz. of pounded cochineal. Whisk these well, and put the mixture into the cask, stirring it in and about well with your staff; and if on trial, in about a week or ten days, you find the wine not bright and brilliantly clear, you must forthwith fine it for use. If you should decide that your port is short of body, put 1 gallon or 6 quarts of cognac into the pipe, as you judge necessary. It should be added by 1 quart or 2 at a time, as it will feed better than if added all at once. Should your wine be in bond, get a funnel that will carry the spirit to the bottom of the cask, so that the brandy may be totally incorporated with the wine. When you have made your port wine pleasant to both eye and palate, you may bottle it; being observant to stow it away in a temperate situation, and with sawdust always a *sine quâ non*. But here, again, you may exercise

your judgment to advantage in never using new deal sawdust, the turpentine sometimes proving so very powerful as to communicate an unpleasant smell to the wine through the corks, also forcing it to the fretting state. Both these evil consequences may be avoided, however, by seasoning the sawdust, lightly strewed on a floor, for three or four weeks, and often turned.

TO RECOVER PRICKED PORT WINE.

To a bottle of red port wine that is pricked or acid, put ½ oz. of tartarized spirits of wine, blend them well together by agitation, set it aside for a week or ten days, and there will be a marked improvement. *Note.*—It must be rectified *wine spirit* tartarized, for spirit of wine is rectified from malt spirit, which has not the same effect, nor is the bouquet to be acquired at all comparable to it.

N.B.—Should you not be able to get the above spirit ready prepared, procure some of the most highly rectified wine spirit, and cause it to imbibe some fine alkaline salt, such as that of tartar, and it will answer the same purpose.

ACIDITY IN WINES, &c. &c.

This, in a general sense, denotes such things as affect the tongue and palate with a sharp, sour taste. All perfect wines have naturally some acidity, and when this prevails overmuch, the wine is said to be

"pricked;" which is, in reality, neither more nor less than its approximation to vinegar; but the alkaline salt, that of tartar, imbibed by spirit of wine, has a direct power in taking off the acidity, and the spirit of wine operates as a great preservative of wines in general. If this operation be performed, "pricked" wines will be perfectly recovered by it, and remain palatable some time. The same applies to malt liquors similarly affected, with equal advantage.

TO IMPART ROUGHNESS TO PORT WINE.

Put 2 quarts of claret or sound port into a stone jar along with 2 quarts of sloes (the fruit of the black-thorn), bake them in a slow oven till a great part of their moisture is extracted; then pour the liquor off, and squeeze out the rest. A pint of this will be sufficient for 30 or 36 gallons.

TO FINE A PIPE OF PORT.

Many gentlemen in this country are of opinion that real port wine should be bottled in its rough state, without being first bright; they accordingly rouse up their wine well before they bottle it; but this is certainly a mistake, as in the bottoms or settlings of this wine in particular there is a considerable portion of acid. It would be better to keep it in a temperate cellar until it becomes bright, or else to fine it down. Some of the most experienced

vintners in this country always fine their port wines, both for selling in the wood and for bottling, if convenient, as that takes away their foulness, and renders the wines soft and pleasant. The more usual method, however, is as follows:—Take the whites and shells of 8 fresh eggs, beat them to a froth in a wooden can or pail with a whisk, then add a little wine and whisk up again. If your pipe be full, take out 4 or 5 gallons of the wine to allow room for the finings; then with your staff stir it about actively; after this, add your finings, stirring again for five minutes; afterwards put in the can of wine you took out, leaving the bung out a few hours; this will cause the froth to fall; now bung up close, and in a fortnight or less it will be fine and fit for bottling.

N.B.—Should the weather be any degrees warmer than "temperate," you will do well to add a pint of fresh water sand to your finings.

COLOURING FOR RED FRENCH WINES.

Put 4 ounces of turnsole rags into an earthen vessel, and pour upon them a pint of boiling water; cover the vessel up closely, and when cold, strain off the liquor. A little of this will give colour to a large quantity of wine; it may be made with brandy instead of with water, but made into a syrup with powdered loaf sugar, it will keep longer than with water only.

N.B.—Wine coopers steep the turnsole cold in wine

for a night, and wring out the moisture next day. This method, however, may be adopted with perfect reliance.

COLOURING FOR BRANDIES.

Take a sufficient quantity of oak shavings and digest them in spirits of wine; a similar quantity of shavings may be digested in water, and when the liquors have acquired a deep colour from the wood, let both be poured through a sieve into different vessels, and with a gentle fire bring them separately to the consistence of treacle, by slowly simmering them. Now mix the two extracts intimately together, with the assistance of loaf sugar in fine powder, in a mortar. This will be always ready to your hand, if the air is kept out of contact, and is a colouring for any shade you choose. The next best colouring is made of burnt sugar or common treacle, which last gives a fine colour, but weak, and requires to be used plentifully; this will weaken the spirit, it is true, but it improves the bubble proof, and renders it very palatable. The burnt sugar imparts an agreeable bitterness, so with variety you can adopt which you think fit.

TO MANAGE WHITE PORT WINE.

This is accounted a very difficult wine to render soft and mellow, and requires to be racked and fined two or three times before you can accomplish this end.

When the wine has been three or four weeks in your cellar, take 2½ oz. of isinglass, beaten small, and put it into 2 quarts of stale cider or perry for forty-eight hours; then whisk it up to a froth, in a can, with some of the wine; and, if the weather be temperate, put into the finings a gill of marble sand, whisking them well together; then stir up your wine well with the staff, and put in your finings, continuing to stir five minutes. Leave the bung loose three days, then bung it up for a fortnight, and rack it off into a Madeira pipe, using less of the finings than before. By this method the wine will be much improved, and will drink soft and pleasant.

TO IMPROVE A BUTT OF SHERRY.

If your sherry prove fiery, being new, rack it off into a sweet cask, add 5 gallons of mellowed Lisbon, which will make it drink mild, and to give it a head mix a quart of genuine honey with a canful of your wine, and put it into the cask when racking. This method will greatly improve sherry for present use, acting similarly to age upon it.

TO FINE A BUTT OF SHERRY.

Beat 1½ oz. of isinglass until you can pull it into small pieces, put it into 3 quarts of cider or perry, and let it stand twenty-four hours, or until it becomes a jelly; put it then into a can with a quart or two of

the wine, and whisk it well up with the whites and shells of 6 fresh eggs; then, if your butt be full, take out 4 or 5 gallons of the wine, stir up the contents of the butt thoroughly, add the wine you took out to the finings, stir well together, and return all into the butt, continuing to agitate for at least five minutes. Put the bung on loosely, and in two or three days, at furthest, bung up close. In ten days or a fortnight it will be in good order for bottling. It must be packed when in glass, in a temperate atmosphere.

TO IMPROVE A PIPE OF MADEIRA.

Madeira is a strong, full-bodied wine, and is justly esteemed in this country, yet it requires age, for when new it is fiery and stubborn, so much so, that our merchants used to send it round by the West Indies, by which voyage it became much improved and fetched a higher price. Yet it may be so managed with us as to render this expatriation unnecessary. Madeira requires a warmer situation than port, and if fed with French brandy occasionally, by a little at a time, it will acquire an augmentation of body, should it be under the standard in that respect. If deficient in flavour, add a couple of gallons of good malmsey, or other sound luscious wine. If new, it will require more finings than wine of greater age.

TO FINE A PIPE OF NEW MADEIRA.

Dissolve 3 oz. of isinglass (or 2 oz. will be sufficient if the wine has moderate age) into a jelly, mix it, with a quart of skimmed milk and a pint of marble sand, in a can or pail, which fill up with some of the wine, and stir well for ten minutes with your whisk. Make room in your pipe for this mixture, which must be put into it, and the agitation duly attended to. People of indolent habits may not be trusted with these nice points in management, where the cost of the goods is so heavy. Let it have vent for three days, by laying on the bung lightly, then bung close down, and in fourteen days it will be fine and fit for bottling. Pack with dry good sawdust, in a warm situation.

LISBON WINE.

There are two descriptions of this wine, the "dry" and the "mild." If you possess either of them, you may, by the addition of other wines, obtain the other. Thus, if your Lisbon be dry, take out of the pipe 35 to 40 gallons, and put in a similar quantity of Calcavella, mix them well, and a pipe of good mild Lisbon is the product. Then, if your wine be all mild, take out 30 gallons, and fill up your pipe with Malaga sherry, stirring them to a perfect blending, and you will have good dry Lisbon.

TO FINE A PIPE OF LISBON WINE.

Take the whites and shells of 16 fresh eggs, and a small handful of salt, beat them to a froth, and mix with a quart of the wine; pour this into the pipe, stir well ten minutes, put on the bung loosely three days, then bung down close, and in ten days it will be fine. When bottled, Lisbon is best packed in sawdust, in a temperate situation.

TO CAUSE WINES TO SETTLE WELL.

Boil a pint of wheat in a quart of soft water till it bursts and becomes soft; squeeze out the liquor through a cloth, and put a pint of it into a hogshead of unsettled wine; stir it well in, and in a few days it will become fine.

TO IMPROVE WHITE WINES.

If you discover any unpleasant taste in your wine, rack off the one half of it, and to the remainder add new milk a gallon, a handful of bay salt, and as much rice; beat these well in for half an hour, then fill up the cask with your wine, bung safely, and roll it about for ten minutes, then place it on the stillage, and in a few days you will find a marked improvement in your wine. If the wine have become foul and lost its colour, for a butt or pipe take a gallon of new milk from the cow, put it into your cask, and stir it well about; set the cask bung upwards, and when it has settled, put to it 3 oz. of isinglass, reduced to a jelly,

and ¼ lb. of refined sugar, powdered finely. Stir these well in, and in two days bung up close; you will have it fine and of a good bright colour in less than a week.

CLARET.

Claret is not a wine of much strength of body, and to be good when used, it must be aged. In this position we must have recourse to management, and first recommend the feeding it with small quantities of cognac at intervals, and keeping it in a cellar of pretty nearly always the same temperature. A pint of brandy added every third week will be the best mode of addition, for much added at once renders any wine fiery and unpleasantly hot, whereas, being added gradually, it incorporates with the wine, and feeds and mellows it.

If your claret prove faint, and have lost its colour (in France termed rancio, and by us called tawny), rack it off into a fresh emptied hogshead, and, if possible, upon some lees of prime claret; then bung it up very tightly, so that the cask may rest, bung downwards, upon your stillage for three days, the dregs thus percolating through the entire mass; then turn the cask bung upwards till the wine becomes fine; but if the colour does not quite please, rack it off again into a hogshead that has just newly been emptied of claret. Take 1 oz. of cochineal beat in a mortar, and digested in a bottle of good wine, shake it well up,

and turn it into your cask; thus you will get both a good body and a natural colour, artificially produced. Turnsole is preferred by some vintners, and is thus used. Put 1 lb. of it into 1 gallon or 6 quarts of wine, let it lie all night and the next day, then put it into the vessel, which must remain all night bung downwards, and observe next day to roll the cask about well. In two days place the cask at rest, and in a week you will find your wine of choice colour.

FOR CLARET THAT DRINKS FOUL.

Rack off the claret clear from its dregs, and on to some fresh lees of its own sort. Take now 12 new pippins, pare them, take away the cores, slice them roughly, and put them into your hogshead. Wait a week, and if you find your wine may be still further improved, get a handful of the oak of Jerusalem, bruise it, and add it to the wine. Stir it ten minutes, and in three or four days the foulness will be dissipated, and the aroma heightened.

TO FINE A HOGSHEAD OF CLARET.

The whites and shells of 6 fresh eggs must be beaten in a bowl or can to a froth, then 6 quarts of the wine mixed with these must be put to your wine in the hogshead, room having been first provided by taking out some of the wine; and do not be sparing of trouble in agitating the lot thoroughly. Claret requires keeping warm, in sawdust, when in glass.

SECTION VI.

BREWING.

ALE is a beverage peculiarly English.

On the whole, the art of brewing remains the same as it was one hundred years ago, but wholesome rules for economy and for procuring the largest quantity of agreeable, wholesome, and highly nutritious liquor from a similar quantity of grain have been handed down to us by scientific as well as practical brewers, the most useful and attainable of which it is the purport of these few pages to exhibit.

The art of brewing ales and porter may be divided into the following details: first, mashing, which requires nothing more than diligence; that, however, not duly exercised, entails upon the proprietor of the goods much loss at the commencement. Of the water

used in mashing little will be said, for that subject has been too often scanned, and is found to result in giving preference to that of rivers, particularly of such as meander through rich soils, and occasionally pass over gravelly scours; such is the Trent, which passes through Burton, Nottingham, and Newark, all famed for their ales. Pit water produces fine ales, particularly if the bottom be not muddy, and if a spring runs into it, with an exit by ditches. Of the quality of malt a few hints may not be out of place.

Malt is selected by its sweet scent, mellow taste, thin skin, and round body. There are generally two, and in some counties three, sorts made use of: the pale is chiefly used in private families, the latter in large public brewing establishments, as it is reported to go further as to profits, and imparts a higher colour to the liquor. The sweetest malt is that which is dried with oak and with cinders. If the corns yield to pressure easily between the teeth, you may infer that they have been well malted; on the contrary, if you perceive them hard, due attention in the malting has not been paid. In grinding the malt, the mill should be set so as to *crush* the grain only, and not grind it too small, or approaching to powder; it being better, if unavoidable, to have some of the smallest grains run through the mill untouched by the bite, than to have the whole ground too small, which

would act prejudicially in two ways, the one causing it to form in a cake, and preventing the virtues being extracted, and the other by causing much trouble in getting the ale fine.

The hops to be preferred are such as have a bright light green colour, a sweet scent, and feel clammy when rubbed in the hands.

STRONG OCTOBER BEER.

October is chosen for brewing ale that is intended for long keeping, because that month is succeeded by moderately cold weather, which affords a better opportunity for your worts working comfortably in the second or insensible fermentation, when in the cask; whereas, March and April do not offer this advantage.

Having filled your copper, and brought your water to the boil, put as much of it into the mash-tub as will wet, thoroughly, 10 bushels of choice pale malt, the quantity generally thought sufficient for the production of a hogshead of *strong* beer by two mashings, the first of 165 deg. of heat by the thermometer (Fahrenheit scale), and the second by 175 deg. Should your water unavoidably be hard, it must be used 5 deg. hotter for each mashing. When your liquor is of the proper degree of heat, put in the malt, a little at once, and let another person stir it about well while it is being emptied in, and further blend-

ing for at least ten minutes continually after the malt is deposited; then cover the mash-tub over with sacks, &c., and let it stand to macerate one hour and three-quarters (during which time you have got ready another copper of water of the degree of heat above mentioned), at the expiration of which time draw it off into the copper, turning the tap only about half the bore.

When the whole is drawn off into the copper, put into it 3 lb. of hops, which should be rubbed well between the hands to separate and break them; then make up the fire, and let the wort boil briskly half an hour, and no longer; then draw it off into your coolers. When your second mashing has stood, draw it off, as before, into the copper; then add the remaining 3 lb. of hops, together 6 lb., which is the proper quantity for the hogshead, and let that boil also half an hour; then run this also into coolers.

COOLING THE WORTS.

In this process no time is to be lost, every minute being an object; for if the worts are not properly cooled, and if not put together at nearly an equal temperature (not under 55 deg. nor above 60 deg.), great difficulty may arise in the next process, fermentation; and which cannot, in many instances, be remedied. In this stage of brewing *particular atten-*

tion must be devoted to the WORTS; otherwise they will, in the summer-time (and more especially if you brew in March), frequently turn what is called *foxy*. Now, having got your worts with all possible speed, and at the requisite degree of heat, into your tun, we proceed to the

FERMENTATION.

The worts being in the tun, get to work with your yeast, which should be *genuine ale* yeast; that collected from table-beer worts will decidedly not answer the purpose with strong worts. It is absolutely necessary that a gallon bowlful of your new wort be taken out as soon as made, and your yeast mixed with it well, but not, however, until it has cooled a little. This mixture will be ready when wanted, and, to a certain extent, in a state of incipient ferment, which will forward your process considerably. The quantity of yeast may be a quart, to which add a handful of well dried wheaten flour, and an ounce of table salt. This, well mixed, must be put into the tun. Cover it up close, and watch it often carefully, to see if the fermentation goes on kindly; if it proceeds gradually, there will be first a beautiful flowery head upon the surface of the wort, which will thicken in a short time to a yellowish-white crust, and upon holding the head over it there will be inhaled a sharp, luxurious scent. The head of the froth will, from

this period, thicken gradually, and the scent become more penetrating for the space of two days and nights; it will after that naturally abate, and by degrees cease: this will be satisfactorily ascertained by the falling of the head of the wort, which shows that the fermentation is declining; then the wort must be drawn off into the casks in which it is intended it should be kept.

CASKING.

The beer should be drawn carefully and gently out of the working tun, so as not to disturb the sediment of the wort, which must be strenuously rejected, and not put into the casks, even if filtered. Keep the casks quite full, which will cause a second fermentation; this must be promoted by filling up the casks two or three times a day with the wort which you have reserved for that purpose, as you find it working over, for unless kept well filled up, the beer will not cleanse itself. When you observe that the working has ceased entirely, no more yeast being thrown out of the bung-holes, stop up the casks close, and let them so remain till the beginning of the year following, that is, supposing the beer to have been brewed in October. In this time it will fine itself perfectly, if strict attention has been paid to the brewing, and a due respect for these instructions; but it sometimes happens, if the weather in the spring should be ex-

tremely warm, that it will cause then a slight fermentation, which we should endeavour to prevent by making a vent-hole in each cask, and letting a peg be slightly put in, and remain so the whole of the summer, if there remain any appearance of fermentation, which may be easily ascertained by applying the ear to the bung-hole, when, if there is a hissing noise, it indicates that the beer is undergoing a second fermentation.

But if, through neglect, the examination of the state of the beer be omitted until the fermentation has gained power over it, and the cask should not have been pegged, there would be danger of its bursting; for though a very slight communication with the air would be sufficient, as we see by the vent-hole, yet, if the vessel were in every respect closed, the power of the fermenting liquor would certainly cause a rupture. If any appearance of this sort should be discovered in time, the cask should stand with the vent-hole opened till autumn, or at least till September, that being the period at which the fermentation naturally ceases; as it was induced by the increasing temperature in the spring, and declines with the cooler weather of the autumn. Cellarage has much to do with these changes, and many persons have not the least trouble with their malt liquors in the space of twenty years and upwards.

FINING.

If the foregoing instructions are duly attended to, the beer will generally become beautifully bright in a short time; but in case you should not be able to allow sufficient time for this desirable operation, the following method may be adopted, and will be found to have the effect, and at the same time not prove detrimental to the beer:—Take ¼ lb. of picked isinglass, and put it to 2 gallons of stale beer; let it stand forty-eight hours covered up, when it will be dissolved. Take then a whisk made out of a new birch-broom (they can be purchased white), and agitate the liquor till it is well mixed and becomes a jelly; put into each hogshead a gallon of this fining, stir it well ten minutes, and bung the cask up; in three days the beer will be perfectly bright and fit to tap, and to bottle, if necessary. Where the intent is to drink it from the wood there may be a reserve for bottling; two-thirds may be drunk, and the remainder bottled, which is best done when the beer is eighteen months old, if brewed in cool weather; and to allow your beer every advantage, it should remain in bottle twelve months.

REMARKS.

To avoid every possibility of failure in every respect, it may not be out of place to observe that many cautious brewers of choice ales and beers put one-

half of the hops to be used into the underback, and let the first wort run upon them, preparatory to boiling them along with the wort. This is a judicious method, for the wort in the underback soon becomes impregnated with the finer properties of the hops, and is so far safe from tending to acetification, which it is always to be provided against, even so early in the processes. Sometimes there is a bitter taste attached to the yeast, and this may be reduced or totally got rid off by taking off the top brown scum from it, or by letting the yeast remain one night in a mixture of lukewarm water, and poured clear off the next morning when wanted. We next proceed to a more generally useful article for private families.

MILD ALE.

Mild, mellow ale is always made of lower strength than strong beer, and is less flavoured with the hop, being intended to be drunk at no very remote period from its being brewed, and not for keeping, as the strong is. This beer is best brewed alone, not making any table ale or small beer from the same materials. The method of brewing it differs but little from that of strong beer, and with but little variation with regard to the operations of other ales.

The standard I shall adopt for brewing this description will be 8 bushels of fine pale malt to the hogshead of ale, with 6 lb. of hops of milder flavour than the former, viz. the Worcestershire, or half of

these with half Kent hops, which will produce very excellent ale.

The malt should be ground at least three or four days previous to using it; in fact, I have the best authority for stating that malt brews better for having been ground that length of time for all sorts of beers. Put sufficient water into your copper to satisfy all demands upon it, as first allowing for each imperial bushel of ground malt to imbibe and retain nearly 7 gallons, imperial, of water; next, 3 or 4 gallons will be wasted by boiling for a hogshead, and you will want an additional quantity as a reserve of wort for filling up with. Stir up the fire and put into the copper a handful of table salt when the water boils, of which the half must be transferred to the mash-tub, and cooled down by addition of cold water to 160 degs. by the thermometer, for the first mashing. Next pour in the malt by degrees, assisted by some one capable of stirring it the whole time, that the malt may not be caked. When it has been well mashed, cover the tub with sacks, but occasionally again stirring it well five minutes each time; this is of more importance than seems to have occupied the attention of authors on this subject, and the necessity for which can be enforced by the most cogent reasonings. Most of the scientific brewers incline to the preference for tolerably fine-ground grist of all descriptions of grain; but this seems peremptorily to demand that due agitation be used, for if consider-

able stirring be not enforced, the fineness of the powder of the crushed malt, by forming a paste scarcely permeable by hot water, will rather obstruct than promote a perfect solution, and but a weak extract or infusion will be obtained from even the highest class of goods. Continued stirring in mashing will compensate for coarse grinding, should that be the case with your malt; if the malt be coarsely ground, your making the water to act upon it more effectually by stirring, will dissolve everything that is soluble from the grain; and as the least delay is really dangerous in this part of the process, the sooner we get all the virtues out of the malt, so much more may we rely on the subsequent good success of the brew. After the first mashing has stood two hours, draw it off gently into the copper (having previously taken out the remainder of the liquor for a second mashing, which you must bring with cold water to 170 degs. of the thermometer); to this add the half of the quantity of the hops first put into the underback (see remarks on the strong beer), and let it boil briskly twenty-five minutes; then draw it off into the coolers.

When you have put your water in for the second mashing, and along with the other half of the hops, let it stand two hours and a half; then draw this wort off into the copper, the hops that were used in the first mashing being again used in this second mashing. Boil this briskly half an hour. Then let

the wort be drawn from the copper into other coolers, and let them stand, mixed together, till they have attained to 80 degs. Fahr. Be very careful in drawing the worts off into the fermenting tun, that no dregs may be included with them, but left remaining at the bottom of the coolers, and thus you will not be hampered with foul liquor in your after operations.

The different settlings down of the worts will be highly advantageous to your ale, as they will all be the means of cleansing it much sooner, and the quantity that will only be fit to be thrown away will be trifling indeed. This brewing is intended to produce a clear hogshead of fine ale. The wort being transferred into the tun, the manner of working is to be in all respects similar to that for the strong beer; a quart of fresh active ale yeast will be sufficient, and it must be put to a gallon of the wort some time previously to being wanted, and thoroughly incorporated with it; this will save time, which, at this particular period of the process is of paramount importance, as has been before remarked. The tun is to be covered up and kept to the proper degree of ferment by the method before recommended. It must next be got into the cask by drawing it clear out of the working-tun, leaving all the sediment behind. It is taken for granted that you have got a sufficiency of wort in store for filling up the casks as the yeast works out. It being ascertained to your full satisfaction that the

fermentation is totally at an end, the cask must be securely bunged, and in three weeks or a month it may be tapped. If the materials were well chosen and in full complement, this cannot fail of being an excellent and wholesome liquor.

TABLE BEER.

Many families adopt the long practised custom of brewing their table beer upon the remaining materials of strong beer brewing; this is altogether a practice based upon egregious error, for it is an expensive, dilatory method of producing a beverage which nine times out of ten is worthless. Such persons may rest assured that if they regard that sort of drink as necessary to economy and comfort, it is decidedly their interest to brew it alone, for the trouble and expense are little more, and the product not worthy of comparison in favour of the latter. The method is similar, the quantity and proportions of the goods at your own option, but whatever the decision in point of strength, the operation of brewing should be performed at once, all that is made should be of one kind, and not a stronger first and a weaker afterwards. We shall recommend 2½ bushels imperial to the hogshead, which will be worth the trouble of brewing, and save the tapster so many journeys down to the cellar for what is called swipes in London.

Grind the malt a day or two before the brewing, to cool and mellow. Calculate the amount of water

wanted for a first mashing, put it into your copper and bring it to the boiling point, let this out into the mash-tub, and bring it, by the addition of cold water, to somewhat below the heat for the stronger beers, say to 156 degs. thermometer; then pour in the malt and stir it well twenty minutes without intermission, not beating it about carelessly to break it, but so as to effect a thorough mixing; cover it up, let it stand two hours, now and then agitating it with the oar, and draw it off at the expiration of the time into coolers. The hops requisite will be 1½ lb. well divided and rubbed, putting them into the receiver and letting the liquor remain upon them. While this mash is standing, a similar quantity of water must be brought to a proper temperature, being somewhat hotter than the first mashing liquor, about 160 degs. by the thermometer, and when the mash-tub is drained almost to dryness this must be put into it. Thus it must stand two hours, similar to the other, and then be run off into the receiver.

When the grains are well drained (on no account can we ever tolerate their being *pressed*), the liquor is to be transferred to the copper with the hops, and it should boil briskly half an hour; more boiling is necessary for these small worts than for the strong ones, nor does it do them so much mischief. After this the management is to be similar to the other cases, and the beer will be capable of being kept to a perfect fineness, and will far exceed that ordinary

and poor kind, which it is only possible to make after other drinks. When such small beer has stood to a due fineness there is no liquor more wholesome. If the cellarage be good and the season for brewing propitious, this beer will be sound and good at the end of three months.

REMARKS.

In public breweries many other ingredients are made use of in producing their beers, and when they grow foul or become stale or otherwise out of condition, they have remedies to recover them. Those persons who follow the directions herein laid down, will need no other expedients than malt, hops, water, and salt, to make the most acceptable malt liquors, nay, the most excellent, nor will they be liable to fail or become faulty; yet the best brewer may sometimes by accident or oversight have his beer turn bad. I shall give the methods of prevention when the danger is foreseen, and the means that may be innocently and safely used when it has happened. The brewers use what they call *food*, something that is to remain at the bottom of the cask, and upon which the liquor lies and gets mellow or ripe.

Often the finest part of its own natural sediment answers this purpose, but when that is deficient, or more is required than will naturally result from its effects, the feeding paste is very proper. It is made thus:

Dissolve 2 oz. of the finest isinglass in as much strong beer as will thoroughly melt it, then add to this 1½ lb. of loaf sugar. Let them stand till the sugar is also melted. Powder very finely 3 lb. of clean soft chalk and 1 lb. of white oyster-shells, such as are kept by druggists, add to this of the flour of malt sifted finely 1¼ lb., and of powder of hops 2 oz.; grind these well together, then put in the syrup of isinglass, and beat up the whole in a marble mortar to a good paste; spread this upon a piece of paper on the back of a large sieve, and lay it in a current of air to dry; when it is hard and dry put it away safely for use. 2 lb. of this is the proper quantity to put into a hogshead of malt liquor, and so in proportion for a less or greater quantity. If any trifling oversight has occurred in the processes, or if the season has been unfavourable, or any other cause may excite suspicion that the ale may turn sour, &c., this being put in at the fastening down of the bung, will prevent the mischief. The beer will be fine, clear, soft, and pleasant, and keep without danger. If from any omission of this assistance when it was necessary, or from any other cause, a cask of beer grows unexpectedly foul and thick, and tastes as it always will in that case, dead and muddy, the proper remedy is by a syrup of the hop made with isinglass. The proper way to prepare it is this, and for a hogshead the proper quantity:—Rub small 1 lb. of fine fresh hops, put them into a stone jar, and pour upon them as much

boiling water as will cover them without pressing them down, stop up the jar, and set it in a large pan of boiling water, pour away this as often as it cools, and put fresh boiling water in its place; in this manner keep the hops stewing in the close jar twelve hours, then let them stand twelve hours longer in the cold. After this strain the liquor, without pressing the hops, dissolve in this 2½ oz. of beaten isinglass, and then to each pint of the liquor put 1 lb. of loaf sugar, and strain it through a flannel bag, the sugar being totally dissolved. When this is ready, clean and sweeten a fresh cask, burn two or three brimstone matches in it, then put in this syrup, draw off the beer from the hogshead which it was in carefully into this, leaving all the sediment behind. Bung it up safely, but leave the vent-hole open a little for three or four days, then stop it up entirely, and let it remain three weeks, after which it will be beautifully fine.

It is found by experience that the more pale malt is dried, the shorter time beer will take in fining, and the sooner it will be fit for use; in fact, very brown or high-dried malt will not fine at all.

Various recipes are given to restore sour beer, which I lay now before the reader for choice and experiment. Salt, made of the ashes of barley-straw, put into the vessel and stirred; or three or four handfuls of beech-ashes thrown into the vessel and stirred; or, where the liquor is not very sour, a little

put into a bag, without stirring; chalk, calcined oyster-shells, egg-shells, burnt sea-shells, crabs' eyes, alkalised coral, &c., any, and all of which possess a direct influence in neutralising acids, when added. Beer, it is said, may be kept from turning sour in summer by hanging in the vessel a bag containing a new-laid egg, pricked all over with pin-holes, some laurel-berries, and a few barley-grains; or by a new-laid egg and walnut-leaves. Beer tasting of the cask may be freed from it by putting a handful of wheat into a bag, and hanging it in the vessel. A few hints on cellarage may be useful.

CELLARAGE.

A cellar should be deep beneath the surface of the earth, the floor laid on a proper descent, to permit all water to run off, and as much secluded from the air as possible. The roofs of cellars should be arched or vaulted, and should be situated under the northern aspect of buildings. A ready communication between the brewhouse and cellar greatly facilitates the conclusive operations of brewing; and pipes or hose for the purpose of conveying the liquor are very convenient, but in cold weather may, perhaps, chill too much. During the summer months, the cellar should be washed out weekly; it is not only salutary, but keeps the beer fine and cool; and in the winter months, sweeping them out once a week will have the same effect. Be provided with all the requisite

utensils you stand in need of. A cock of large bore will be found preferable for the mash-tub to a spigot and faucet. A strainer made of tin or copper should be fixed to the cock inside of the tub every time you are about to brew. This will materially assist in leading the worts to run off clear. All the coolers should have cocks in near the bottoms. This, although not often the case, is absolutely necessary, for the lees, if disturbed, will impregnate with bad flavours, and your liquors will seldom fine.

PORTER.

Put 1 peck of ground amber malt into a small tub, having a hole bored near the bottom for the liquor to run through, placing a wisp of clean hay or oat-straw before the hole inside the vessel to prevent the grains issuing with the liquor: 3½ gallons of water being brought to boil, dash the boiling fluid with cold water just sufficient to arrest the boiling, and leave the whole just hot enough to bite smartly upon the finger. Begin immediately to put it to your malt by degrees until it is thoroughly and equally wetted, stirring it well to prevent the malt clotting. Cover the tub with sacks, &c., to prevent the escape of the steam. Let your wort stand after mashing an hour and a half, or two hours. Then let the wort run off into a vessel placed properly to receive it, and if the weather be warm, take the necessary precaution of your wort commencing the souring stage by putting some of

your hops into the vessel, letting the wort run upon them; the hops must have been previously well opened and rubbed apart. If at first the liquor runs thick and discoloured, pour it back into the mash-tub to refine until it runs quite clear, having in the interim got 3 gallons more water boiled for the second mashing. Let your infusion stand an hour and a half, then run it off; never allow your malt to stand dry; keep lading fresh liquor upon it till the quantity of wort you desire to get is extracted, always providing enough for loss by boiling, running off the wort, and filling up the casks. If the weather should be hot, no time should be wasted in accomplishing these processes, and the sooner the worts are got into the fermenting state the better it will be for the beer. The boiling of the wort next follows: a ¼ lb. of hops is to be boiled along with the wort for an hour. Many persons, brewing for their own private consumption, would add to the wort—

Treacle	½ lb.
Licorice root, slit	¼ lb.
Spanish juice	¼ lb.
Burnt sugar colouring . . .	¼ lb.

and so in proportion for a larger or less quantity of wort. This will certainly impart to the porter a fine colour and fuller taste, innocent as are the ingredients. The hops, carefully strained from the first wort, must be boiled in the second an hour. This

wort must be carefully strained also, and set thinly in the coolers, that it may be brought to the proper lukewarm state for working as soon as possible, for observe, that porter requires to be brought forward more expeditiously than any other malt liquors. When it has cooled down to the proper temperature, work it with a gill of fresh active ale yeast till it bears a deep head. The second day after brewing, cleanse; put into your wort about 2 teaspoonfuls of fine flour, and 1 of table salt, which will help the working; rouse the liquor up well at the same time. The porter is now ready for fining; carefully fill the cask for that purpose, which must, of course, be left with the bung out, that the yeast may flow over, and not endanger the safety of the cask. Be sure to keep the casks constantly filled upon the stillage, and when it nearly ceases working, top it up with bright sound beer, and not with any of that which has come over with the yeast. When the fermentation has totally ceased, and the cask filled in the way directed, it must be bunged closely down, care being taken, particularly in hot weather, or during sudden changes of temperature, that a new fermentation be not suddenly excited, for upon the least occasion of suspicion it must be immediately stopped by withdrawing the vent peg.

TO BREW FIVE BARRELS OF PORTER.

A quarter of malt (8 bushels), with all the ingre-

dients, should produce 5 barrels of good porter, when brewed in accordance with these directions.

Take a quarter of high-coloured malt, 8 lb. of hops,

Licorice root, sliced . .	8 lb.
Salt of tartar	2 drachms
Spanish juice	2 oz.
Capsicum pods	½ oz.
Treacle, thick black . .	9 lb.
Colour	8 lb.

The six ingredients may be added or not, at the option of the party; they certainly will improve the complexion of the beer. The "colour" is made by boiling 8 lbs. of moist sugar till it obtains a middle state between bitter and sweet, and which gives to porter that fine mellow colour usually so much admired. The malt must be mashed, and the hops boiled, as before stated, and when boiled the other materials must be added. Boil the first wort one hour, the second one hour and a half, the third two hours, so that you fully extract the virtues of the hops. Be careful not to put your wort together when too warm. To complete your brewing, you fine your beer. Some persons are desirous of preparing every adjunct themselves, and it is the most certain way to have everything genuine. Such finings as are recommended here, are composed of the best isinglass (and there are many qualities) dissolved in stale beer till it forms

a thin gluey consistence, like size, and which must be used with discretion; 1 pint of it is usually sufficient for a barrel, but sometimes 2 and even 3 are found to be necessary. Particular care must be taken that the stale beer in which the isinglass is to be dissolved is quite clear and thoroughly stale. When the finings are added, the liquor must be well stirred with your staff, and let the bung remain out ten or twelve hours. Your cask must not be too full, for unless there is room for the porter to work, the subsidence will not readily be effected.

Before proceeding to give the proportions requisite for different sorts of beers, it may be due to my readers to warn them against all possible delays that may arise in brewing, for I repeat, that after allowing the time stipulated in each stage of the business, the sooner the brewing is accomplished the better, as you run less risk of sour worts, and mawkish, poor products. The fire too under your copper will need some attention, sometimes to be very much slackened, as when being emptied of one liquor to receive another, nothing must taste of quenched hot iron, and when the hops are in the copper, mind that they do not stick to the sides and bottom, and so become burnt, to the utter destruction of fine flavour in your productions. Other requisite admonitions all tending to excellence in your liquors, will be found under their own proper heads.

Begging to be excused for this trifling digression,

I indulge in the recommendation of the two recipes, one for strong beer, and the other for mild ale, just before quoted, since for many years I had the opportunity of testing the excellency of the ales thereby produced. A very intimate acquaintance of mine had his malt liquors brewed with a strict observance of those rules, and I state with great regard to truth, that he was famed for having the "best glass of ale" within a wide circuit around him. He was a very respectable farmer in the county of Stafford, and located within a mile of the river Trent, with the water of which his brewings were generally made, but not always so, and then water from a pit on his farm was substituted, without any perceptible difference. So noted was Mr. B—— for his ales, that gentlemen visiting him on business or otherwise invariably requested to be indulged with a small copper can of his strong beer, in preference to all the wines and spirits which he had in his cellars. Sometimes when complimented on the beautiful state of his fine mellow beer, and being interrogated as to his means of nearly always having such superior drinks, he would reply, that his wife was generally accounted a good and attentive brewer, that she could command adequate assistance in the heavy brewings, twice a year, March and October. As for his part of the business, having five or six acquaintance maltsters, he always made his selections of the best managed grain, and had his malt ground, or more properly crushed, in his own granary. This last observation

although seeming of trifling moment in the production of first-class beverages, involved considerations of the highest importance, viz. the possession of the small particles of the malt, commonly considered the flour, arising out of the grinding, and which he described as having the greatest amount of strength and abundance of rich flavour; adding, that he hardly ever knew a man of business, as a maltster, but who had a "tap of good ale," in consequence, perhaps, of not troubling his customers (who desired to have their malt ground) with the "small flour or dust" of his malt. I give my readers the benefit of this hint, which will considerably add to the perfection of their malt liquors, without increasing in the least the expense. Age, generally, is a chief consideration with the malt liquors of the English, although means are now adopted for imparting fictitious flavours of this cast. I do not approve of them, since I am convinced that chronic diseases of the stomach have arisen from the habitual use of liquors so "doctored."

BURTON ALE.

For a hogshead of fine.

Choice pale malt, ground . .	8 bushels
Kentish hops	8½ lb.
New genuine honey	3 lb.
Coriander seeds, bruised . . .	1½ lb.
Table salt	1 oz.
Bay salt	¾ oz.
Bean flour or malt flour . . .	¼ lb.

Mash three times with a barrel of soft water for each mashing. Let the first be with water heated to 170 deg., the second 176 deg., the third at 150 deg. Boil the first wort by itself, adding, when it has been boiling fifteen minutes, the honey, the coriander, and salt. Mix all the worts together when boiled, cool them to 65 deg., and set them to ferment with 1½ pints of fresh ale yeast. When there has formed a good head of yeast on the worts, take it half off, and adding another 1½ pint of yeast, stir it well about for ten minutes, then add the bay salt, pounded small, and the bean flour or small malt. Draw it off gently, rejecting the sediment, into a perfectly sweet cask, and proceed as before advised in the case of other strong ales.

WINDSOR ALE.

Best pale malt	10 bushels
Hops, crushed	14 lb.
Honey	2 lb.
Grains of paradise, husked .	2 oz.
Coriander seed, bruised . .	¼ lb.
Orange peel	6 oz.
Licorice root, powder . . .	½ lb.

Let your hops be half of Worcester and half Kentish. Let them be soaked in malt liquor all night previously to using them. Let the heat of your water be 180 deg., mash thoroughly one hour and a quarter, and then let stand an hour; boil the worts with the

hops one hour and a quarter. Then when at 75 deg., add some of the best active yeast, and work in the usual manner.

READING ALE.

This is also denominated Kennet ale, and has many staunch admirers, particularly amongst the Oxford gentlemen.

Prime amber malt	8 bushels
Hops	8 lb.
Coriander seeds	2 oz.
Chillies	¼ oz.

Calculate your water, so as to have upwards of 2 barrels of ale. Make three mashings and two boilings; the first boil half an hour, the second boil three-quarters of an hour. When the first wort is in the copper, add the coriander seeds and chillies. Set the first mash with 1½ barrel of liquor at 170 deg., the second set at 185 deg., with a similar quantity of liquor, the third mashing at 155 deg. with 2 barrels of liquor. Put in your yeast when the mixed worts are at 65 deg., and cleanse at 75 deg. with a full head. The product will be a very agreeable ale, and a great quantity of it is sent annually to the West-end. It is not calculated to keep over nine, or at most twelve months; after that time it becomes vapid.

NOTTINGHAM ALE.

This renowned liquor differs from other ales, chiefly in the mashing process, and for a quarter of pale

malt and 8 lb. of good strong hops these means will be appropriate. Pour a barrel of boiled soft water into your mash-tub, and run in upon it when at 170 degs. the whole of the grist, by degrees, another person stirring actively the whole time; there being so little water in the tub will cause the last bushel of malt to assume a sort of covering to the whole contents. The agitation having been duly performed, let the mash stand two hours, or rather more; the tap being all the time turned on partially, to let the wort run off, by a gentle stream only, upon the hops, put into the underback from the commencement, to prevent the wort turning sour, which, in this long process, would be likely to occur. When the whole of the water you intend using has been run through the mash-tub, you must continue to lade the wort out of the underback again and again upon the grist, for twelve hours at least, or until you find all the sweet has been extracted from the grains. The plan of enclosing the hops in a small bag after they have been well separated, saves trouble; the bag may be suspended in the boiler, taken out at pleasure, and thus prevent the hops burning to the sides and bottom of the copper. The hops boiling in the bag in the wort must be added to until your appointed quantity is consumed. Much of the excellence of Nottingham ale is owing to the fine cellarage it is kept in, and in many instances as many as a hundred steps are to be descended to arrive at the beer in store.

SCOTCH ALE.

This ale has a high character, and is particularly well adapted for bottling, in which state it sometimes travels thousands of miles, increasing in goodness. The Scotch are rationally methodical in many of their operations; and in brewing ale they use an instrument called a spurge, made of tin, or sometimes of white wood, perforated with many holes, which lets down the liquor upon the malt in the mash-tub after the manner of heavy rain. One mash only is generally made, and that with water at about 180 degs., which provides for its cooling in its descent, and one-third part of the whole water. After mashing half an hour and sometimes more, it is allowed to remain quiet for three hours, and is then run off. This sprinkling is done with four gallons of the liquor, and is repeated until the whole of the virtue of the grist is extracted, each repetition remaining on the malt about half an hour. The wort is boiled similarly to others, and set to ferment at an unusually low temperature, as low as 52 degs. It will continue to work for two or three weeks, the bungs lightly put on, or the aperture covered only with a tile or a piece of slate, and is not put into cask until perfectly fine. Honey is sometimes added to promote the creamy appearance we observe on the surface of bottled ale when in the glass from which it is to be drunk. The proportions here are, pale malt 8 bushels, and best mellow pale hops 4 lb.; water proportionate to strength.

WELSH ALE.

In Wrexham and the neighbourhood, at Llangollen, and most parts of the beautiful Vale of Clwyd, you will always meet with excellent ales; they are rich, full bodied, and sound. From repeated inquiries, as well as from personal observation, I could collect that the methods observed in producing such very superior liquors do not differ materially from our own. They brew moderate quantities at a time, use the best malt and hops, neither of which they are stingy of, and take only one extract from the grist. The proportions, excepting at some of the mansions of the aristocracy, are such as to obtain 100 to 110 imperial gallons of wort from 10 bushels of the best amber malt, and 15 lb. of Worcestershire hops. The heat at which this one mashing is accomplished varies a few degrees from 165 degs. to 175 degs. Ale thus brewed for private use needs no artificial clearing, as it will, if left to itself, become limpid and excellent in all respects. This ale bottles well, and keeps admirably in bottle, though most generally it is draught. The small quantities (that is, comparatively speaking with the large gyles of our English breweries) fermented at once will not have generated so much heat in that process as to run the *attenuation* very low; hence, their ales retain good body, and the unaltered saccharine matter is sufficient in quantity to permit a slow and continued proper fermentation in the bottle,

where it becomes mellow to the palate and desirably vinous. Parties bottling such malt liquors will not be troubled with bottles bursting or corks flying, if properly secured, for weak ales undergo a much more uncontrollable fermentation than strong ones, and thus table beer in warm weather will cause fractures, while strong beers will not be disturbed. Good table beer or table ale may of course be made from the remains in this process, by using water heated to 185 degs. and boiling the hops with the worts, also conducting the fermentation as before directed.

DORCHESTER BUTT.

By the average proportions of ingredients, two barrels for each 8 bushels of malt can be obtained of this celebrated beer. Boil your water, bring it, by adding cold to it, to 170 degs. by the thermometer; put in the malt by small quantities, and stir it well; thus let it stand two hours. Then add the additional water (having run off the first wort) at 180 degs., and repeat the treatment. Boil the worts with the hops half an hour, stirring them well up from the bottoms. Put it now in the fermenting tun, until a white head comes on it, when put in the yeast, after skimming off from the tun the head, and let it work until the fresh head of yeast falls, then cleanse it. Keep the cask well filled up until the fermentation has totally ceased. The malts mostly used are one-third pale and two-thirds amber, with nearly 7 lb. of hops to each

8 bushels. This will be sound rich beer that will bear age well.

BARNSTABLE ALE.

This is accounted a good, full-bodied liquor, but requires much diligence in the brewing. When the water is ready, boiling, throw a couple of pailfuls of cold water into the mash-tub, and upon that the boiling water. The malt must next be added, about ½ bushel at a time, stir it well until it is all absorbed, give it a coating of malt or sweet bran, and keep it covered up close for at least three hours. See then if the mash has sunk in the centre, and in case it has, fill up with boiling water to a level with the edges of the mash, let it stand three-quarters of an hour, and then run off the liquor by a very small stream, which must be returned upon the grains continually by a small pailful at once, until you have extracted all the virtue from them. Whenever the liquor is recommended to be returned many times upon the grains, it should be poured on as far from the tap at the bottom as can be, that no forcing the liquor out may be effected. Your worts will thus be procured much clearer. Let your mash stand an hour, if in cool weather, but certainly not if approaching to warm. For this quantity, 4 lb. of fine fresh hops must be used, first well separated by rubbing, and placed in a sieve for the wort to run on; 3½ bushels or 4 bushels of prime pale malt will yield, by this process, a barrel of

excellent ale, which will acquire great improvement by age.

ALE FROM OATS.

The laudable economy of the "Yorkshire folks" gave rise to oat-ale, a liquor pleasant to the taste, but which will not keep in summer-time; indeed, when well managed, it drinks much like white wine while brisk, or when getting tartish, not far removed from some sort of cider; 8 bushels of oat malt, of the white description of that grain, and better if dried with coke, must be crushed or roughly ground, and mashed with 40 gallons of cold soft water, and allowed to stand fifteen hours; then run it off by a small stream, putting 2 lb. of good new hops in. Let it infuse, cold, for three hours, then strain it. In the tun add yeast, and let it work smartly two or three days; then stop it up closely, and in ten or twelve days bottle it. The hops may be well rubbed before being added, with evident advantage. If the demand for its consumption is not great, it will be advisable to place the bottles on their sides in warm weather.

SUGAR ALE.

Excellent ales may be brewed from sugar; but I am fully aware that, among ale drinkers, this opinion does not obtain. When we brew from the finest malts, what else are we doing but brewing from sugar, or from saccharine matter? The advantages to be derived

from brewing with refined sugars are many; first the cost, it being well ascertained that 14 lb. of good refined sugar will produce ale of equal strength as a bushel of malt, or 16 lb. of good Muscovado sugar will go just as far, but be of rather a deeper colour. Secondly, the wholesome quality of the liquor recommends itself, since ales from sugar sit more lightly on the stomach, and are much more easily digested, particularly if bottled. Thirdly, the necessity for so many brewing utensils is dispensed with, as will be here seen. In short, I have brewed first-rate mild ales from sugars, that have not cost me more than tenpence per gallon, and that with the least possible amount of trouble.

To produce twenty gallons of good ale, the water, with 3 lb. of good fresh hops boiled in it not longer than ten minutes, must be poured into a cask of that capacity (or in proportion to an 18-gallon beer cask), having a cork hole of 1 inch in diameter, or rather more, bored in the head of it, for the cask must be placed on end on the stillage. In this strained liquor 28 lb. of sugar must have been totally dissolved, and when at 70 degs. of heat, two pints of fresh strong yeast must be well stirred up amongst it. Fermentation will soon set in, and cause the yeast to be forced out of the cork hole at the top of the barrel, and this being confined within the external rim of the chimb, it will chiefly run again into liquor, and so again go into the cask.

In the usual warmth of our summers it will require three weeks or a month to complete the working, for the last ten days of which time the cork should generally be kept in the hole, yet removed every other day at most, to admit air, or rather to allow the fixed air to escape. When the hissing noise has totally ceased, the taste of the sugar will be hardly perceptible. The cork must now be firmly fixed in, and in a week the cask may be tapped at about two inches from the bottom; the liquor, which by this means always clears itself, will be fine and bright, and may be bottled.

SECTION VII.

The Management of British Wines and Malt Liquors.

TO RESTORE PRICKED WINES.

Rack your wines down to the lees into another cask, where the dregs of good wine are fresh; then take a pint of very highly rectified spirits, and scrape ½ lb. of sweet beeswax into it, which gentle heat over a slow fire will totally dissolve. Dip into this a piece of coarse linen, which dry, and set on fire with a brimstone match; put it into the bung-hole and stop it up closely.

Or, get a fresh emptied cask of a similar wine if possible, and use the brimstone match pretty liberally to it; rack off your acid wine into this, putting to every 10 gallons of it 2 oz. of your own made oyster powder (for which a recipe is elsewhere given), and ½ oz. of bay salt; stir this well continually for ten

minutes, and after that let it stand four or five days to settle. Now again rack it off into a matched vessel, and, if you can, get and add some lees of a wine of the same sort, along with a quart of cognac to each 10 gallons of the wine. On no account must the matching of the cask be omitted, and a newly emptied cask should be got if possible. This is here inserted as a general recipe for all home-made wines.

TO PREVENT WINES TURNING SOUR.

Boil a gallon of wine with some pulverised oyster-shells, and crabs' claws burnt (calcined) to powder, 1 oz. of each to every 10 gallons of your wine; then strain out the liquor through a sieve, and when it is cold, put it into your wine, and it will impart thereunto a very pleasant lively taste.

N.B.—A lump of unslacked lime being put into a cask of wine thus conditioned, will also keep it from turning sour. But I have found that no preparation of any substance renders equal service in this way to the powder of mussel and cockle shells, washed and carefully calcined just when wanted (for we can now get them nearly all the year round), and tied up in a little bag of linen; besides, this leaves no objectionable deposit in the cask, nor muddiness, should the cask happen to be shaken.

TO SWEETEN WINES.

For 30 or 36 gallons of wine infuse a large hand-

ful of the flowers and the small tops of clary, also 1 lb. of mustard seed, newly crushed in a mortar, and enclosed in a little linen bag with a pinch of bay salt. Sink it in the cask by putting a few pebbles in the bag.

TO STOP DECAY IN HOME-MADE WINES.

I am not afraid of any necessity for such helps, provided that the directions contained in these pages be strictly followed; but spurious ingredients are, now-a-days, imposed upon us in a fearful degree. Reduce 1 oz. of roche alum to a fine powder, and mix it with 4 gallons of your suspected wine, stirring it well in; add this to the whole quantity, stir it well for ten minutes, and bung it up closely. In a week or so you may bottle it, if wanted, and it will drink fine and brisk.

TO RESTORE ROPY WINES.

When tapping the cask of wine, fix a piece of coarse linen cloth, or of light canvas, around that part of the cock that goes inside the vessel, to act as a filter, and draw off 30 gallons into a new cask with 5 oz. of powdered alum. Agitate this a long time, so that the blending of it may not be a failure. It will fine down without further aid, and prove very clear and pleasant.

FININGS FOR MALT LIQUORS.

Boil a pint of good wheat in 2 quarts of soft water

until it is ready to burst, then squeeze out the liquid through a fine linen cloth. A pint of this will render 18 gallons of ale, beer, &c., beautifully fine, and will sustain its integrity for some time.

A second method.

Common table salt	1 handful
Mellow chalk, scraped fine . .	1 handful
Molasses	2 quarts
Isinglass	1 oz.

Dissolve the isinglass in stale beer to a syrup; put 1 quart of this to the molasses and others. Mix all well together with a gallon of the beer, drawn on purpose out of the cask. Now put this back again into the cask and stir it till it begins to ferment. When this has subsided, stop it up close, and you may tap it in three days. This quantity is for a butt of 108 gallons, or 3 barrels.

A third method.

Unslacked lime ½ oz., water 1 pint, when boiling hot. Mix them intimately, and let them stand four hours, to deposit at the bottom. Pour off the clear liquor, and mix with it ½ oz. of isinglass, cut small, and boiled to a jelly in a very little water; pour all into the barrel, and in six hours it will be fine.

TO RECOVER FLAT BEER.

Draw out of your hogshead 4 or 5 gallons, and

boil them with 5 lb. of pure honey; skim it well, and when it has become cold put it again into the cask, and stop it up close; your liquor will drink strong and pleasant after this.

A second method.

Break up a pound of soft chalk into several pieces, put them with 2 oz. of new hops, separated, into a bit of muslin rag, and sink it in the cask. Bung up close, and in four or five days it will be fit to drink. This for 18 gallons.

A third method.

Put 1 lb. of good new hops into a fine net, along with a few pebbles to sink it to the bottom of your cask. This is sufficient for a butt, and so, in proportion, for smaller capacities. Tap it in six months, but if it should be wanted sooner, put in hops that have been a little time boiled in a first wort.

FEEDING MATTERS FOR BEERS.

To a quart of French brandy put as much wheaten or bean flour as will make it into a dough, cut it in long strips, and put it into the beer cask, at the bung-hole, letting it fall gently to the bottom. This will prevent the beer growing stale, will preserve it in a mellow state, and add to its strength.

A second method.

To 1 lb. of genuine honey add 1 lb. of oyster-shell powder, or soft yellow chalk; mix them into a stiff

paste, which put into the cask. It will preserve the beer in a soft mellow condition a long time.

A third method.

Dry ½ peck of egg-shells in an oven, break up and mix them with 1 lb. of soft chalk, and make them into a paste with water in which 2 lb. of coarse sugar has been boiled. Put this into the cask; it will be sufficient to sustain 50 gallons of beer a long time, and render it mild, yet rich in flavour.

This variety of methods affords opportunity for choice, but any one of them is calculated for the purpose named. The pastes must be added when the liquor has entirely ceased working, or soon after, and the bungs inserted firmly. At the expiration of nine or twelve months it may be tapped, and we have no doubt of your entire satisfaction. The aid of fifty years' experience warrants us in making these assertions.

It is a practice with some persons to beat in the yeast while the beer is working, for several days in succession, to make it strong and heady, and promote its sale. This is one of the tricks I would guard my friends against. Yeast is of an acrimonious and narcotic quality, and by repeated beatings, which are blendings, the beers are made to imbibe these pernicious effects. They may not be discoverable by the taste, but the nervous system with many persons exposes the nefarious and injurious practice. Let

the worts have a natural, free, light fermentation, which, if allowed to continue one day or so in cold weather, will be long enough, tunning it in the second day at the furthest. Should you have any need to recover, fine, or preserve beer, you may use any of the preceding methods with perfect confidence.

TO FINE A HOGSHEAD OF PORTER.

Porter must be fined as soon as it has ceased working, and this will be best effected by making use of the composition recommended as the *second* for ale. But if you prefer racking off your porter, you must defer fining it until that time. When the finings are put into the vessel, stir up the liquor effectually, and let the bung remain out nine or ten hours. Your cask must not be too full, for if there is not room enough for the beer to work, the deposit will not so readily be made, and the liquor possibly might remain thick. As the second recipe for finings is intended for a butt or 108 gallons, you must use only half of the quantity for a hogshead of porter.

There are two causes for which beer that is kept a considerable time drinks hard and stale, and as only a small part of the community at large prefer it when it is in this condition, I have appended these recipes for feeding, &c. The first cause of malt liquors drinking hard, is the great quantity of sediment that remains at the bottoms of the casks. When neglected to be properly cleaned, there is frequently found a pailful

or more. Now this compound sediment of malt, hops, and yeast, so affects the beer, that it partakes of all their corrosive qualities, which render it prejudicial to health, generating heartburn and various chronic and acute diseases; therefore, during the whole process of brewing, mix not the least sediment with the worts in removing them from one tub or cooler to another, especially take care, when you turn the liquor into the cask, not to disturb the lees or bottoms of the working tub or tubs, which would tend to prevent the beer from ever becoming clear or brilliantly fine. The second reason is, keeping it too long in the working tub. Persons making profit by the sale of yeast, frequently promote an undue fermentation, and keep their beer constantly in that state five or six days. This too great *attenuation* of the wort causes an evaporation and waste of all that spirit which should remain in the beer to keep it soft and mellow, and thus we see the necessity of adopting artificial means to secure that desirable end (see the dissertation on "Fermentation" in this work), and add something wholesome and genuine for the liquor to feed on while being long kept.

TO BOTTLE ALE, BEER, AND PORTER.

Your bottles must be clean, sweet, and dry, your corks sound and good, and your beers fine. When you fill the bottles they should not be corked till the next day, and if for removal to any great distance, or to

a warmer temperature, they should stand open at least three or four days, particularly if the liquor be new and frisky, and the corks secured by wire or string. But if for the requirements of a private family only, this may be omitted, but packing the bottles in sawdust, and standing them upright, must be observed. If a few be wanted for immediate use, pack them on their sides, that the liquor may touch the corks; this will soon ripen it and render it fit for drinking. Here let me not omit to state that the best possible means to be adopted for bringing all wines, cider, perry, and malt liquors forward and to be ready for drinking in a very short time, is not to cork them at all, but to tie wetted bladder or parchment over the mouths of the bottles.

There are old methods of ripening malt liquors, which, being harmless, in no degree detract from their natural goodness, and may be adopted. Of these, the favourites in some counties are, to put into each bottle a teaspoonful of raw brown sugar (not the whitish or clayed sugars), or two teaspoonfuls of rice, washed wheat, or three or four halves of split horse beans, six raisins, or a very small dice of raw lean beef. Any of these will answer the purpose. I however prefer, if it is only for the sake of saving time, and not regarding the improvement of the strength, using wet bladder, and Soemmering assures us that wines treated thus will, in twelve months, become as mellow as in twelve years in the

cask. The more shallow the vessel and the wider its mouth the sooner will the effect be produced. M. St. Vincent confirms this by his statement, that, by means of parchment or soft bladder, we may attain, in a few weeks, the good effects of many years.

RACKING OF WINES.

Unless domestic wines are made in large quantities, the racking of them adds little to their good quality; and I should not advise any wines being racked under a quantity of sixty gallons, unless they prove obstinate, and will not fine without forcing.

FININGS.

Any of the following methods will prove successful. Take a pound of marsh-mallow root, wash it clean and cut it in pieces; macerate these in 2 quarts of soft water for twenty-four hours, then boil the liquor down to a pint and a half, strain it, and when cold mix with it ½ oz. of chalk in powder and pour it into the cask, stirring gently for five minutes.

Or, rice boiled tender, but not to a mash, 2 tablespoonfuls; the white of a newly-laid egg and ½ oz. of roche alum, in powder, mixed with 1 quart of the wine, then pour it into the cask, and stir it well for ten minutes.

Or, dissolve 2 oz. of picked isinglass in 1 quart of sour cider, and put it into the cask, stirring it well in.

METHOD WITH FININGS.

Your finings being prepared, put them into a can or pail with 1 quart or so of the liquor you are about to fine, whisk them up together until they are perfectly blended, then nearly fill up the can with the liquor, whisking it about again; after which, if your cask be full, take out four or five gallons to make room, then with your staff give the liquor a thorough stirring; then whisk your finings up, and put them in, afterwards stirring it well up for five minutes. Drive the bung in tightly, and take care that a vent hole has a peg nicely adjusted, which must be driven home after the lapse of three or four days.

BOTTLING OF MALT LIQUORS.

A few practical rules for bottling all sorts of ales, beers, and porter, may be useful, since this process is frequently misconducted in private families. And first we should consider whether the liquor is in a fit state for bottling.

When you draw out the vent peg from the cask, if the liquor is forced out, it is a proof that the fermentation is still too active to admit of its being bottled with safety. In this case it will be best to fill up the bottles, and leave them uncorked for a day or so, and if they should then have lost by frothing over, or if the froth have subsided in the bottles, they must be filled up to within two inches of the corks, which

should then be driven in tight, and the bottles laid on their sides; thus the corks will be soaked, and will swell so as to fix them firmly, and prevent the escape of carbonic acid, on which the briskness of the liquor depends. In this state of ripeness the beverage drinks most pleasantly; but if the liquor is strong bodied it will remain quiet, if weaker, it may begin to burst the bottles, and in that case, as soon as this is perceived, the bottles must all be set upright. If in cold wintry weather, they must be kept moderately warm; in warm weather they must be kept cool.

Again, if on drawing the vent peg the liquor appears quite still, it should be tasted, and if decided to be acidulous, it is in no proper state for bottling. But if it should still be a little saccharine, with a moderate degree of briskness, it is just in a fit state for bottling, and in such a case there is no occasion to leave the bottles uncorked at all.

Ales home-brewed, and in *small* quantites, do not generally answer well for bottling; there is in the processes but little alcohol formed, and hence the liquor does not keep well.

BITTERS.

GIN BITTERS.

For 5 gallons.

Oil of orange	3 dwts.
Oil of caraway	3 dwts.
Oil of wormwood	3 dwts.
Refined sugar	1 lb.
Spirits, 1 to 5	3½ galls.

Kill the oils by mixing them with the spirits; steep 1 oz. of Virginia snake root and 1 oz. of coriander in 1 quart of spirits four or five days, shaking them well frequently in the day, which done, draw it off and mix the oils; the sugar should be dissolved in 5 quarts of water and then simmered over the fire, skimming effectually, and when it has got cold, add it to your spirits. Fine down with ½ oz. only of powdered alum.

BRANDY BITTERS

Are made nearly after the same manner as gin bitters, adding, for 5 gallons, ½ oz. more of Virginia snake-root. Or—

Gentian root, bruised . . .	3 lb.
Cardamoms	1 lb.
Orange peel, thin yellow . .	2 lb.
Cinnamon, broken	8 oz.
Cochineal	2 drachms
Water	5 galls.
Proof spirits	6 galls.

Infuse ten days, closely corked up, then strain, filter, and bottle for use.

WINE BITTERS.

The dried yellow rinds of 20 oranges	
Caraway seeds	½ oz.
Virginia snake root	8 dwts.
Gentian root	2 oz.
Spirits of wine	1 gall.

Infuse all together, closely corked, ten days, then strain, filter, and colour it with burnt sugar. Or—

Oil of Seville orange peel . .	1 drachm
Oil of caraway	½ drachm
Oil of wormwood	½ drachm
Almond cake	3 drachms
Virginia snake root	¼ oz.
Coriander seed, bruised . . .	¼ oz.
Refined sugar, clarified . . .	1 pint
Rectified spirit	1 gall.
Water, that has been boiled, cold, *q. s.*	

Steep the coriander seed, almond cake, and snake

root in the spirits for five days; kill the oils in spirits of wine, and fill up with the water. Blend all well together by repeated agitation, and in a fortnight pour it off clear, filter it through flannel, and bottle it, corking and sealing it carefully.

SUPERIOR FRENCH BITTERS.

Yolks of fresh eggs	½ oz.
Gentian root, sliced	½ oz.
Seville orange peel, the thin yellow part only	1½ drachms
Boiling water	1 pint
Cinnamon bark	¼ oz.
Nutmeg, sliced	¼ oz.

Beat the egg to a froth, pour the water when boiling upon all the ingredients, and let them digest four hours, then strain them through flannel, and when they are cold bottle them for use.

HONEY AND YEAST.

I hope to have ensured the use of the best, by recommending, all through this little work, the adoption of "refined sugar," by which I mean the most superior loaf that can be got. I am certain it will save the consumer a vast amount of trouble in skimming, and believe, in the end, that it will prove the cheapest,

which, with many persons, is an object of no small importance. In the choice of honey, I would guard my readers against the glaring impositions practised daily in the sale of this article, having more than once, on my journeys, come in contact with "travelling bees," who supply to their customers "genuine honey" made on the spot. I once witnessed the sojourn of one of these manufacturers for eleven weeks in one large town in Lancashire. The safest way is, of course, to purchase the surcharged honeycombs and wring out the pure sweet with a coarse cloth, thus removing wax, dead bees, &c. That which is procured by the first gentle pressure, and without heat, will be the best; it will be of a whitish yellow colour, and of a delicate flavour, and is what is called "virgin honey;" if the combs, after this, are subjected to heat and pressure, they give us the honey of commerce. If sugar has been used, you will detect grains of it between the thumb and finger after it has been gently boiled some time, and allowed to get cold. Treacle may be discernible by its colour, taste, and scent. Starch and flour will be discovered by the sediment when a little of the syrup is dissolved in cold water.

TO CLARIFY HONEY.

Dissolve the honey in water at 160 degs., beat the whites of 3 eggs for every 3 lb. to be clarified, to a froth, with a little cold water; add this, and let it settle and get cold, then filter off the clear and bring

it to a proper consistence by boiling. Syrup and honey should always be boiled in earthenware vessels.

Genuine honey crystallises when kept completely in the dark, and remains fluid and transparent if kept within the influence of the sun's rays.

YEASTS.

In reference to the brewing of malt liquors, yeast is made use of generally, without regard to quality, from the very best to the very worst, as though it exercised little or no influence on the result. If a notable housewife should happen to use a portion of the latter in making bread for the family, and that bread should turn out sour, or heavy, or bitter, the blame is certain to descend on the barm or yeast, and not without just reason; whereas in brewing, if the beer have any unpleasant flavour, it is attributed to any other cause than to the yeast. I should recommend persons who brew often in the year, to procure some yeast in the commencement of it, of as pure and unsophisticated a quality as possible, as from a respectable farmer's wife, and by using it, save a quantity of it from one brewing to another by the means hereunto annexed. If this recommendation should not be heeded, as "too troublesome," I must remind my friends that the adding of yeast to worts is simply *inoculation*, and would any of them be so unwise as to *inoculate* a wort made from the best malt, hops, and water in the county, with a really poisonous

matter, produced, no matter by what means, or from what ingredients; not reflecting for a moment on the vile stuffs that daily are set before our working population, some of whom they intoxicate, some of whom they make violently ill, and thousands upon thousands they kill outright.

TO PRESERVE YEASTS.

Good sound ale yeast may be kept many months in a perfectly sweet and active condition, thus:—Put any quantity of it in the coldest weather into a coarse cloth, and press out the moisture by gentle degrees, until the remaining part in the cloth be of a firm consistency, about the same as well-tempered clay for brickmaking. This must be packed in a close vessel, excluding the air as much as possible, and it will be found fit for use at any time. Or, I have seen it in excellent condition when it has been lying closely corked up in stone bottles at the bottom of a pit of water for some months. Yeast produced from a brewing of small beer, or even table ale, will not do to be used as a ferment for strong beer or ale. It will in all probability cause a failure.

SECTION VIII.

Agreeable and Wholesome Beverages.

GINGER BEER.

(Of a very superior quality.)

Best refined sugar	5 lb.
Lemon juice, strained . . .	¼ pint
Genuine honey	¼ lb.
Jamaica ginger, bruised . . .	5 oz.
Water	4½ galls.

Boil the ginger in 3 quarts of the water, half an hour; then add the sugar, lemon juice, and honey, with the rest of the water, and strain this through a flannel bag; when cold, add the quarter of the white of one egg, and a small teaspoonful of essence of lemon; let the whole stand five days to macerate and become mellow; then bottle it in clean, dry glass, using the best corks. This will keep in excellent order many months.

Another method.

(A Paris recipe.)

Best Jamaica ginger, in coarse powder .	5 oz.
Boiling water	4 galls.
Best refined sugar	4¼ lb.
Good solid ale yeast	½ pint
Cream of tartar	2 oz.
Oil of cinnamon	¾ oz.
Bitter almonds, blanched and bruised .	1 oz.

Pour the water, boiling hot, upon the ginger, and wait till it becomes cold; the liquor must next be strained through flannel, then allowed thoroughly to dissolve the loaf sugar in the liquor, and when the heat of it has descended to 75 degs., put in the yeast and the cream of tartar. If the weather is cold, or approaching to it, set the containing vessel near the fire, and covered up so as to excite an active fermentation. As soon as this is at an end, the liquor must be racked off clear, the vessel well scalded out, and the liquor returned into it, and permitted to work a day or two longer. Now the oil is to be killed in a small quantity of the strongest spirits of wine, and beaten in a mortar along with the blanched almonds, to a thick paste, which must be put to the liquor in the cask, and the whole is to be bunged closely down for a week, after which, at your pleasure, the liquor may be transferred to half-pint bottles, or stone jars well prepared,

corked and wired to resist the strong action of the carbonic acid gas.

This elegant beverage, if properly managed, with due attention to these instructions, will carry a fine frothy head when poured out into the glass, and will retain the liveliness of its gas a considerable time, which it seems is a desideratum. Ginger possesses the property of imparting a close, high, creamy head to all effervescing liquors that partake of it.

SPRUCE BEER.

Spruce is a powerful anti-scorbutic, and should be used freely by persons having a tendency to that affliction. It acts upon some subjects as a diuretic also. By the annexed directions, it may be excellently made:—Get 16 gallons of river, or other soft water, boil the half of it, and put the other half into a sweet barrel, pour the boiling water upon the cold in the barrel, then add 6 large tablespoonfuls of genuine essence of spruce, and 16 lb. of good West India molasses. When this liquor is at 72 degs. of heat, add to it half a pint of active ale yeast, put in the bung safely, and roll the cask about for ten minutes. Keep it in a warm place, particularly in cold weather, two days, with the bung out, but the hole covered loosely with a piece of tile or slate, and the cask kept full all the time, by the addition, three or four times daily, of some of the same liquor reserved. By this time the fermentation will have subsided sufficiently for bottling. Commit the beer to small bottles, or to clean stone

jars, well corked, and in a week, if your ingredients were well selected, it will be ready for drinking.

Another method.

Genuine essence of spruce	
Water from a river, or rain water	18 galls.
West India molasses	18 lb.
Sound ale yeast	½ pint
Isinglass	½ oz.

The water, boiling, must be put to the treacle, and after being well mixed, by continued stirring, must be transferred to your perfectly sweet cask. Now blend the spruce with 2 or 3 quarts of this liquor, when it has become nearly cold; this must be put into the cask, as also the yeast, and the whole well roused up for ten minutes. It must be allowed to work with the bung out for four days; then add the finings (the isinglass broken in pieces and totally dissolved into a jelly, with a little stale cider, perry, or beer), and stir them well into the liquor. Now bung up closely, and after letting it stand ten days, draw it off, without disturbance to the lees, into quart stone bottles, well corked and carefully wired. No numerous family should be without some of this excellent drink in the spring and summer-time.

EXCELLENT PORTABLE LEMONADE.

(Advisable for Emigrants and Travellers.)

Break ½ lb. of good loaf sugar into largish lumps, and grate off the thin yellow part of the rinds of 2

juicy lemons, first wiped clean, then bring this sugar to powder, and pour upon it the strained juice of the fruit. Put this into a small glass jar, cork it well, and when it is wanted, dissolve a tablespoonful of it in a glassful of water, cold as ice. The sweetness, if too considerable for your palate, may be counteracted by the addition of a very small quantity of citric acid or lemon kali. Do not be afraid of making this fine zest, as it will keep a long time, if the air is excluded by safely corking and sealing it.

SHERBET OF THE HOTELS.

Refined sugar, powdered and sifted .	½ lb.
Tartaric acid	¼ lb.
Carbonate of soda	¼ lb.
Essence of lemons	45 drops

All the ingredients must be particularly well dried, and then thoroughly mixed; the essence being then added, and immediately afterwards committed to a small glass jar, which cannot be too tightly corked and sealed. The essence must be put to the sugar first, and then the others added.

IMPERIAL.

Thin yellow rinds of lemons or oranges, or of both	6 oz.
Best refined sugar	8 oz.
Boiling water	3 quarts
Cream of tartar	1 oz.

Pour the water, boiling, upon the above, in a sweet vessel; keep it covered up until it has become cold, when strain, and afterwards filter it, until you have got it clear as rock water, then bottle it, corking it well, and in hot weather it will be a refreshing and wholesome beverage at moderate cost.

PERSIAN SHERBET.

Double refined sugar, in powder	1 lb.
Tartaric acid	4 oz.
Carbonate of soda	4 oz.
Essence of lemon	100 drops

Rub these well up, and quickly, in a mortar, put the mixture into small wide-mouthed glass jars or bottles, cork them, and seal them with wax, so as totally to exclude the air, and keep them in a cool place. To ½ pint of cold spring water, add 2 or at most 3 teaspoonfuls of this compound, stir it quickly, and drink it off while it is in a state of effervescence.

ORIENTAL NECTAR.

Double refined sugar	4 lb.
Malaga raisins	2 lb.
Boiling water	2 galls.

Mix these well, stoning the raisins, and totally dissolving the sugar, and, when it is cold, add—

2 lemons, sliced	
Cognac brandy	1½ pint
Old rum	1½ pint
Fresh or preserved strawberries .	¾ lb.
Raspberry juice	1½ pint
Sweet almonds, sliced	2 oz.

Digest these in a closed vessel four or five days, with frequent agitation, then strain, and let it remain a week to settle, then bottle it off, with care not to disturb the dregs. Keep it cool; it will be fit for use in a fortnight.

THE SULTAN'S.

Mellow raisin wine	2 quarts
Clean British malt spirits . .	6 quarts
Peach or apricot kernels . . .	2 oz.
Oil of Seville orange peel . . .	¼ drachm
Oil of cloves	½ drachm
Mace, powdered	½ oz.
2 large nutmegs, powdered	
Preserved strawberries . . .	1 lb.
Calf's feet jelly, liquified . . .	1½ lb.

Dissolve the oils in the strongest spirits of wine. The spices must be soaked in some of the spirits for fourteen days. Sweeten it to your taste, with a quart of filtered simple syrup, and fill up your 3 gallon cask with soft water that has been boiled and allowed to get cold.

LEMONADE.

(Prepared for long keeping.)

Pare off the yellow rinds of 18 fine lemons, and put them, along with 3 lb. of refined sugar, into a clean, sweet earthenware pan, pour on these 2 gallons of pure river water, boiling hot. Stir it till the sugar is quite dissolved, and cover it with some thick texture for twenty-four hours. Now add the juice of the 18 lemons, filtered away from the pips, &c., which, by the bitter they contain, would spoil the whole brewing, and rather more than 1 gill of highly rectified spirits of wine. Let it stand three days, then dispose of the liquor in clean and well-dried glass bottles. If you intend it to effervesce when poured out, drop a few grains of tartaric acid into each bottle when you are corking them. Tie down the corks safely. Keep it in a cool situation when the weather is very hot.

ITALIAN LEMONADE.

2 doz. fine lemons	
Refined sugar	2 lb.
Genuine sherry wine	1 quart
Boiling soft water	3 quarts
Boiling milk	1 quart
Oil of cassia	¼ drachm

Pare off the yellow rinds of the lemons, put them into a clean earthenware pan, and pour on them the

strained juice, letting them macerate all night. In the morning add the sugar, wine, and boiling water, stir it all well two or three times in the course of the day; at night add the boiled milk, stir it well again, and set it aside to settle for two days. Then bottle and cork it well, and leave it in a cool cellar till called for. If it is not made in our hottest weather, it will keep some weeks, and is a palatable elegant liquor. The oil killed by a little strong spirit may be added just before the milk.

SECTION IX.

Medicinal Wines.

BALM WINE.

Put a peck of fresh gathered balm leaves into a sweet tub, and pour upon them 4 gallons of scalding hot water; let these remain thus all night; on the morrow strain off the liquor through a hair sieve, and add to it 2 lb. of refined sugar for every gallon of water employed. Put the whites of 2 eggs into a basin, and, with a little cold water, beat them to a froth. Transfer the whole materials into a vessel, which place on the fire, stirring them actively, and skimming them well, so long as any scum rises. Boil this three-quarters of an hour, remove the liquor to a cooler, and let it work two or three days, then cask it, bung it down closely, and when fine, bottle it. In cases of surfeits from colds, tightness of the chest, &c. &c., this wine will be found to possess valuable properties.

LISBON DIET DRINK.

Licorice root, sliced	8 oz.
Sarsaparilla, sliced	4 oz.
Sassafras, sliced	3 oz.
Guiacum, sliced	6 oz.
Mezereon, sliced	2 oz.
Water	3 quarts

Boil all together slowly till it is reduced to 5 pints, then strain off the liquor and filter it. It is an excellent purifier and alterative. The usual dram is ½ pint in the course of the day.

RHUBARB WINE.

Best East India rhubarb, sliced	2¾ oz.
Lesser cardamom seeds, bruised and husked	¾ oz.
Saffron	2 drachms
White wine, good raisin	2 pints
Proof spirit	½ pint

Let these digest fourteen days, then strain and filter them. This is a warm, cordial, laxative compound. It is administered in quantities of half a spoonful to 3 or 4 spoonfuls or more, for evacuating the offending matter from the intestinal canal in most cases of looseness.

WEBSTER'S DIET-DRINK.

Licorice root, sliced	2 oz.
Lignum guaicum, sliced	1½ oz.
Sassafras, sliced	2 oz.
Sarsaparilla, sliced	2 oz.
Dulcamara, sliced	1 oz.
Thyme, sliced	2 oz.

Boil all these together for twenty-five minutes in 3 quarts of soft water, then strain off the liquor, add sugar to the taste, and let it evaporate to the consistency of a thick syrup. Bottle and cork it carefully.

WARNER'S CORDIAL.

Best East India rhubarb . .	2 oz.
Saffron	2 drachms
Senna leaves	1 oz.
Licorice root, sliced	2 oz.
Raisins	1 lb.
Rectified spirits	6 lb.

Macerate these fourteen days, then strain, filter, and bottle them for use. This is a gentle laxative of great utility in families, in quantities of a wine-glassful, in the morning, for adults.

ANTI-SCORBUTIC WINE.

Scurvy-grass	1 part
Water-cresses	1 part
Mustard	1 part
Bog-bean	1 part
Horse-radish	2 parts
Muriate of ammonia	1 part
Spirit of scurvy-grass	3 parts
White wine	1 part

An excellent purifier of the blood, taken in the spring months; doubling the proportion of horse-radish, and omitting the scurvy-grass, bogbean, and

mustard, will be equally efficacious. Doses may be given ¼ oz. to ¾ oz.

STOMACHIC WINE.

Gentian root, sliced	2 drachms
Cardamom seeds, husked and bruised	2 drachms
Peruvian bark, bruised	1¼ oz.

Let these digest in a bottle of Lisbon or other foreign white wine, or, if indicated, port, for a week, then strain it off, filter, and bottle it. A wine-glassful three or four times in twenty-four hours will pleasantly restore a debilitated stomach.

MEDICINAL BEVERAGES.

ARTIFICIAL CHELTENHAM WATER.

Chalybeate spring.

Glauber salts	2 drachms
Epsom salts	2 scruples
Carbonate of soda crystallised .	2 scruples
Table salt	2 drachms
Green vitriol	12 grains

Mix these well, and dissolve them thoroughly in 3 pints of warm water; put it into glass soda-water bottles, which label, and keep in a cool place.

CHELTENHAM SALINE SPRING.

Glauber salts	2 scruples
Epsom salts	1 scruple
Table salt	2 scruples

Mix, and thoroughly dissolve these in 1 pint of water. This is enough for three doses, generally.

CHELTENHAM WATER.

Potassio tartrate of soda. . .	1 drachm
Carbonate of soda.	20 grains
Table salt	5 grains

Dissolve these in ½ pint of tepid water. Filter, put them into ½ pint bottle with 3 drops of sulphuric acid, and cork it immediately.

CHALYBEATE WATER.

Crystallised sulphate of iron .	2 drachms
White sugar, in powder. . .	3 drachms

Bring these, mixed, to a fine powder in a mortar, and form 12 powders, wrapped in blue paper.

Bicarbonate of soda	2 drachms
White sugar, in powder. . .	3 drachms

Reduce these also to fine powder, and make twelve powders also of them, which wrap in white paper. One of each of these powders may be dissolved in half a tumblerful of pure spring water, then add one of the other powders, stirring it rapidly, and drink off the mixture while it is in a state of effervescence. These waters maintain a high character in cases of debility, and are particularly efficacious in relieving complaints incidental to females. Persons of robust constitutions, and who are of a plethoric habit, are interdicted from their use.

ARTIFICIAL BUXTON WATER.

The warm sulphur spring.

Sulphuret of sodium	1 scruple
Chloride of sodium	2 scruples
Bicarbonate of soda	2 scruples
Sulphate of soda	1 scruple
Sulphate of magnesia . . .	18 grains

Mix these thoroughly, and dissolve them in a quart of warm water. Bottle and cork them well, and keep them cool in hot weather.

IMITATIVE BUXTON WATER.

Carbonate of soda.	15 grains
Tartrate of soda	½ drachm
Wine of iron	80 drops

Dissolve these in a bottle of filtered water, then add 8 drops of sulphuric acid, and cork it quickly. It must be kept in a cool room. In a disordered condition of the stomach, consequent on high, irregular living, these waters are reputed to be highly serviceable. Also in gravel and in gout.

HARROGATE WATER.

Chalybeate spring.

Muriate of lime, crystallised . .	2 scruples
Table salt	4 drachms
Chloride of magnesium crystallised	1 scruple
Sulphate of soda	2 scruples
Bicarbonate of soda	2 drachms
Protochloride of iron	15 grains
Water distilled, or rain water . .	1 quart

Dissolve the bicarbonate of soda separately in one-half of the water, and the other salts in the remainder of it; then mix the two perfect solutions; bottle and cork it well.

HARROGATE WATER.

(Sulphur spring.)

Common salt	1 oz.
Chloride of calcium	2½ drachms
Chloride of magnesium . . .	1½ drachms
Bicarbonate of soda	½ oz.
Sulphuret of sodium	2 drachms
Water	1 gall.

Dissolve the sulphuret of sodium in one-half of the water, and the other salts in the remaining half of the water. Mix the two solutions, then bottle and cork it securely.

ARTIFICIAL CHALYBEATE WATER.

(Brighton.)

Green vitriol	3 grains
Chloride of calcium	6 grains
Epsom salts.	2 grains
Bicarbonate of soda	6 grains
Water	1 quart

Mix the above, and thoroughly dissolve them in the water, which should be distilled, or if not, rain water filtered.

WHEYS

Are sometimes ordered to supply the place of wines, and while we profess to provide so amply for the enjoyments of persons possessing the inestimable blessing of splendid high health, our sympathies should be excited for the invalid, or such as are obliged to observe a particular regimen.

WINE WHEY,

Taken warm, is an excellent drink in all febrile disorders, at the same time it is nutritive, and diluent to the body, and is a valuable domestic remedy in cases of cold and influenza.

TAMARIND WHEY

Is preferred by some people; it is prepared by boiling 2 oz. of tamarinds in 2 pints of milk, and then straining it through a sieve.

MUSTARD WHEY.

Take milk and water, of each a pint, bruised mustard seed 1½ oz., boil them together till the curd is perfectly separated, afterwards strain the whey through a cloth.

This is the most elegant method of exhibiting mustard. It warms and invigorates the habit, and promotes the different secretions. Hence, in a low nervous state, it will be often of excellent service. In chronic rheumatism, palsy, dropsy, &c., it has

proved highly efficacious. The addition of a little sugar will render it more agreeable. A teacupful may be taken four or five times a day.

SCORBUTIC WHEY.

This whey is made by boiling ½ pint of any of the anti-scorbutic juices in a quart of cow's milk, and pressing out the whey.

The anti-scorbutic plants are, Seville oranges, water-cresses, brook-lime, garden scurvy grass. These, with others, producing anti-scorbutic drinks, may be varied with cream of tartar, oranges, and lemons, &c. They are cooling, pleasant beverages, and may be made cordial by the addition of good home-made wines.

ALUM WHEY.

Boil 2 drachms of powdered alum in a pint of milk till it is curdled, then strain out the whey. This is wonderfully beneficial in diabetes, or excessive discharge of urine; also in many derangements of the bladder and urinary organs. It is not agreeable taken alone, but may be made palatable by the addition of ginger wine, without lessening the virtue of the whey.

VINEGARS.

Vinegar is an acid produced from vinous liquors by a second fermentation. It is a useful article in inflammatory and putrid disorders. Its effects are to cool the blood, quench the thirst, counteract a tendency to putrefaction, and allay inordinate motions of the system. It promotes the natural secretions, and in many persons and cases excites a copious perspiration.

Weakness, faintings, vomitings, and other hysteric affections, are often relieved by the application of vinegars to the nose and mouth. Vinegar serves likewise to extract, in tolerable perfection, the virtues of several other medicinal substances. Most of the odoriferous flowers impart to it their fragrance, together with a beautiful purplish or red colour. These effects, however, are not to be expected from everything that is sold under the denomination of vinegar, but from such as is sound and well prepared. The very best vinegars are those prepared from French wines, or in other words from the grape. It is necessary for some purposes that the vinegar be distilled. Where the food taken is of an oily nature, or not fresh, and highly salted, vinegar is then indispensably necessary, as in these cases it aids digestion and prevents bad effects; this is especially the case in long voyages at sea. Since we cannot obtain the fresh grapes, which would yield us the very finest

vinegar, we must substitute the dried grapes in the preparation of

RAISIN VINEGAR.

To every gallon of pure spring water put 3 lb. of Malaga raisins, with their stalks, into an earthenware jar, and put them within the influence of the sun's rays, from May to Michaelmas; then press out the liquor thoroughly, and tun it up into a strongly iron-bound cask, putting the bung in very firmly, and making a hole near it, to receive a vent peg, the use of which you may occasionally perceive to be necessary. The liquor will be thick or muddy at this period, but will gradually become fine in the cask, where it needs to be kept for three months untouched; it may then be drawn off and used as an excellent table vinegar.

Another method.

When it happens that you have made raisin wine, let the *marc*, or refuse fruit, be put away in a small vessel, not covered, but pressed into a heap; by the time they have laid in this state about fourteen days, they will have become very sour; add to them as much cold soft water as will totally cover them, and allow the same to macerate for three weeks longer, then strain off the liquor, letting it stand three or four days, and having poured off the clear, you may bottle it, and the longer it is kept, the sharper it will become. These, at any rate, will be pure, genuine

vinegars, possessing the true vinous flavour of the grape.

GOOSEBERRY VINEGAR

Is generally esteemed as the next best acid product. Take gooseberries, fully ripe, of all colours and sorts, and bring them to a pulp by pressure; measure this, and to every quart of it put 3 quarts of soft water that has been previously boiled, and suffered to get cold, and let the mixture, having been well blended, remain quiet for thirty-six hours, then strain off the liquor through your coarse cloth, and to each gallon of it put 1 lb. of good Muscovado sugar. Stir it well together, and leave it, contained in a sweet vessel, covered up, and in a warm situation, nine months. If you do not immediately want it for use, its standing in the wood three or four months longer will promote its great improvement, much more so than if then bottled. This may be relied on for making first-class pickles, which require purity of flavour rather than preservative strength.

CURRANT VINEGAR

Is made in a similar manner, but the fruit should be clean picked off from the stalks, which must not be used. Colour it to your fancy with cochineal, beet-root liquid, or brown colouring of burnt loaf sugar.

SUGAR VINEGAR.

Boil 17 lb. of good moist sugar with 18 gallons of river or pit water, for one hour, skimming it all the

time, then transfer it to a sweet, open vessel, that it may work in, by the addition, when the liquor has cooled down to 75 degs., of a toast well covered with good sound yeast on both sides; cover all over for twenty-four hours, then skim off the yeast, and tun the liquor into a sweet 18-gallon cask. Put the bung on loosely, or, substitute for it in preference, a tile or piece of slate, and set it in a warm place, that it may embrace the benefit of the sun's rays. If you have a choice, March and April are the best months for this practice, only be careful to have your cask well bound with hoops at such time as the bung is to be made fast. Do not tap it till August, when take out half a gallon, taste it, and decide on its merits, returning the liquor to that in the cask, which will help to fine it. Do not bottle it until the end of September, when it should be so placed as to keep moderately warm all through the winter. The putting away of all fermented liquors is not properly attended to. Take a few lessons from the French authorities on this head.

OBSERVATIONS.

You can scarcely ever turn some vinegar sour without fermentation. For this purpose adopt any of the following means. The dregs of any sour wines, the lees of vinegar, pulverised tartar, vinegar itself, a wooden vessel well rinsed with pungent vinegar, or a cask that has been long used for keeping vinegar in, stalks of raisins, the husks of foreign grapes imported

for that purpose, currants, cherries, or other vegetables of an acid taste, or bakers' leaven after it has gone sour. It often happens that a thick, opaque scum will come on the top of vinegar. When you perceive this, as you are nearly certain to do if you are using cider that is soured, and, as such, unsaleable, you must frequently submerge it, and that very gently; this is vegetable, and will grow and increase by exposure to the oxygen of the atmosphere. If you neglect sinking it to the bottom, it will thicken, become green, and then blue, and will putrify, and ultimately spoil your vinegar by detracting the acidity.

MALT VINEGAR.

Debarred the ample use of grapes, the greater part of British-made vinegar is from malt. A quarter or 8 bushels of good malt, properly crushed, must be mashed with water that has boiled and fallen to 165 degs. of Fahrenheit's scale. The second water must be 10 degs. hotter, and the water for a third mashing must be boiling hot when put on. The quantity of liquor produced from these three mashings may be 125 gallons, and, when at 72 degs. Fahr., it must be worked in the usual way with sound active brewers' yeast, well stirred into and amongst it. The casks should be sweet, as for the best ale, and not filled up to the bungs, that the heat may act upon a much larger surface than in ale-brewing. The heat of the cellar or brewing-house must be kept up to 72 degs. by

stoves or other artificial means in winter, and the bungs will be useless for some months. If time is not an object with you, the use of all forwarders of the acetifying process are better omitted, and the natural course will produce the best vinegar.

WINE VINEGAR.

Take any wine that has undergone the process of fermentation, put it into a cask that has formerly contained vinegar; get some fruit and stalks from which wine has been made, wet them with stale or sour beer, or ale, or cider, put them into a tub, and set them in the sun for a week or so; then put them into the soured wine, and stir them about well for fifteen minutes. Put the containing vessel into a warm place, or near a fire in the winter; in fact, observing to keep the liquor at a temperature never lower than 72 degs. will be the principal end to attain. When the vinegar is sufficiently sour and fine, rack it off into clear sour casks, and bung it up closely. In three or four months examine it, and if all has gone on rightly, you will have a fine vinegar well adapted for improvement by age.

CHILLI VINEGAR.

Put any quantity of recent well-matured chillies into quart glass pickle jars, along with mace in a very small quantity, as also table salt. Bring your vinegar just to the boiling point, then fill up the bottles with it, and after corking them, the liquor will be finely im-

pregnated in the course of a week. As the vinegar becomes exhausted, more may be put on the chillies, without any addition of them.

VINEGAR FROM THE REFUSE OF FRUITS.

Take the skins or husks of raisins, after they have been used for making wine, and pour three times their own volume of boiling water upon them, stir well about, and set it in a warm place, covered up closely. In seven or eight weeks the liquor will become plainly indicative of producing a fine vinegar for table uses; that is, not so vigorously biting sour, but mellow with rich acerbity. Now draw it off gently from its dregs into another cask, and let it be well bunged down. Keep it thus six months at least.

VINEGAR FROM BEER.

Take an ordinary sort of beer—that which has been well hopped should be preferred—and when it has been well worked and is fine, put home-grown grapes or raisins with their stalks into it, to every 10 gallons of beer 1 lb., then stir them about well in a tub, and when the deposit to the bottom has taken place, run off the liquor into another sweet cask, set it within the influence of the sun's rays, with the bung out, and the aperture covered slightly with a slate. In a month or six weeks it will be a tolerable vinegar, and, when it is ready, draw it off into another cask and bung it up tightly in your cellar for use. This will also be serviceable for pickling.

SECTION X.

FERMENTATION.

In the modern acceptation, and as connected with our present purpose, the word expresses the changes which vegetable matters spontaneously undergo, and which result in the production of a vinous liquor, an acid liquor, or of a highly disagreeable and uncommon fetor.

The following will serve as an illustration of the process of fermentation and of its stages. If to a moderately weak solution of sugar in pure water yeast be added, and a mixture effected at the usual temperature of summer weather, remarkable changes appear to take place; the liquor becomes muddy, an internal motion is observed, the temperature may rise a little, a slight bubbling noise is distinguished on listening attentively, and the quantity or volume appears to be enlarged. During this time a dense froth,

composed of air bubbles involved in viscid matter, rises to the surface, and after it has there remained some time, it parts with the air which caused it to rise, and the viscid matter sinks to the bottom. The liquor soon remains quiet and becomes transparent. The viscid matter that fell is yeast or barm, and possesses the property of exciting fermentation in other substances which are not (of themselves) disposed to such changes.

Now, the liquor has lost in a great degree its sweetness, it becomes strong, possesses an agreeable smell, and is intoxicating. It is *vinous;* in short, it has become wine; and from this state, by distillation twice or oftener, we get ardent spirit, alcohol. So much for the *vinous fermentation.*

Having undergone these changes, the liquor, being kept in bottle if weak, or partially exposed to the common air if pretty strong, and a temperature of about 70 deg. to 80 deg. maintained, fresh changes appear. If the quantity be considerable, a hissing noise is detected, and the temperature rises 10 to 20 degs., the liquor shows a slight inward disturbance, and some floating filaments appear, and form partly into a jelly cake, which becomes thicker by degrees. The liquor is now nearly transparent, the vinous taste and the spirit are gone, and it becomes sour—in fact, the wine has become vinegar, and although the progress of this change has been hardly discernible, it is the *acetous fermentation.*

Such are the signs, and such the symptoms of these necessary diseases to which our wine-making and brewing of beers are liable, and I contend that, with the aid of our thermometer and saccharometer, and with a little attention, the dreaded bugbear of fermentation may be placed completely under our command. Fermentation at the present day is so far wrapped in mystery that we do not for certain know when it has commenced; this being admitted, shows a greater necessity for observation. If the vinous fermentation proceeds too rapidly, we shall point out correctives; if it continues for a longer space of time than we approve of, we are provided with counteractors; should it, by attendant circumstances, be languid, we can promote its advancement. Thus, the liquors running from one stage to the other may be averted, if we desire it.

In most cases the addition of yeast is necessary, but not always, as in the instance of grape juice, which contains within itself the property of ferment, without any foreign aid. Our apples, pears, crabs, gooseberries and currants, when not fully ripe, partake of the same property, but in a less degree; the knowledge and consequent consideration of this and similar circumstances should be as guides to us in the quantity of ferment requisite for carrying our various liquors to successful issues.

In furtherance of our desire to afford every information in our power, and to remove prejudices that

have been propagated by many interested parties against home-made wines, which have arisen most likely from a failure of their own speculations, or from not having a due knowledge of the scheme or process of fermentation, the following may be set down as a few of the causes of imperfect fermentation:

1. A deficiency of heat.

2. When the fruit has been gathered after a season of continued rain, with cool evenings.

3. When the saccharine matter is not present in a sufficient quantity.

Hence we see that it is impossible for an operator to make liquors equally successfully, unless very particular attention is paid to the seasons; especially where these have been unpropitious, at least one-fifth more fruit should be used, and a less quantity of water. Many persons persist in recommending unripe, or not fully matured fruit for wine-making; in this state it may answer best for lively, sparkling wines, but I think not, generally speaking.

A condition essential to a successful fermentation is the equal proportion of all the ingredients concerned in the vinous fermentation. If there be too much sugar compared with the water, the process is impeded in two ways, according as the excess is great, or too great. If very great, the liquor is not sufficiently diluted to allow freedom of motion to the acting particles; they are entangled, and their agency is obstructed in the same way as we know other energetic agencies to be,

by viscidity. If the excess be not very great, the impediment to the process of fermentation arises from the too abundant formation of alcohol, which, when concentrated, impedes the fermentation of all bodies. A very great excess of sugar prevents the fermentation from taking place at all. Too little sugar, or what is the same thing, too much water, produces proportionately too little alcohol, and the presence of that little, far from preserving the liquor from further change, promotes its passing to a new stage.

The several conditions essential to the production of the vinous fermentation are these:

1. There must be water enough present to produce a moderate dilution.

2. There must be a moderate temperature; the process does not go on either at the freezing or at the boiling point of water; it is most active at summer heat.

3. There must be a substance called *ferment* present, in order to commence the process, and, when once commenced, it will go on without the presence of the ferment.

4. Besides the ferment, there must be fermentable matter—that is, sugar, or some modification of it; and this is the actual matter on which the change is effected, and which gives rise to the new products.

Carbonic acid gas is generated in immense quantity during the vinous fermentation, and escapes by effervescence. Alcohol is at the same time gradually pro-

duced, and remains mixed in the liquor. The taste of the liquor becomes less sweet, and, when the formation of alcohol is complete, the sweetness has totally disappeared.

The quantity of the yeast employed is very important; if there be too much added, and the temperature should be high, the vinous fermentation can scarcely be prevented from running into the acetous. If there be too much added, at a low temperature, the fermentation is languid, and the liquor acquires a sickly taste, which cannot afterwards be got rid of.

The quantity of a fermenting liquor has a considerable and important effect on fermentation; the activity of the process is in proportion to the quantity operated upon. An observant French writer has seen *must*, grape juice, contained in a cask, continue its fermentation until the eleventh day; while a large tub, holding twelve times the quantity, has completely fermented in four days. The heat of the liquor in the cask never exceeded 74 degs., while that in the large tub reached 94 degs.

Again, when yeast has been added to a saccharine solution, the fermentation is not observed to commence immediately. But very shortly after, if the temperature be high enough, very small air-bubbles may be perceived forming at the bottom, and these become a little larger as they rise to the surface. But it does not follow from this that the fermentation did not really commence immediately; it is more probable

that it did, inasmuch as that all the conditions to an immediate process were present at first, as well as at any subsequent period.

The truth more probably is, that the formation of carbonic acid gas took place immediately, that as fast as it formed it was absorbed by the liquid and held dissolved, and that no effervescence became visible until the liquid was saturated, which it would soon be, where sugar was also held in solution.

The conversion from the vinous to the acetous state takes place in dilute liquors with great facility, and often the two states are not consecutive, but simultaneous. In the fermentation of infusions of malt on the large scale, caution in moderating the fermentation and temperature will often fail in arresting the tendency to acetification. On the small scale, as in private families, it is easily prevented.

With these few hints and precautions duly observed, I do not doubt that my friends will carry out their fermenting processes successfully; but if from delays, negligence, or mismanagement, any danger should be apprehended, any of these aids may be adopted.

PROMOTERS OF FERMENTATION.

1. Raising the temperature by covering the containing vessels with sacks, blankets, &c., and moving them near to a fire.

2. By the addition of small quantities of yeast,

first well mixed with some of the liquor, and then stirred in gently.

3. Filling large stone bottles with boiling water, corking them tightly, and immersing them in the liquor.

RETARDERS AND COUNTERACTORS OF FERMENTATION.

Vinous fermentation may be moderated and finally checked by various methods.

1. Reducing the temperature has an immediate effect.

2. Skimming off the head of the yeast.

3. Racking off the liquor into another vessel, from the yeast lying in the bottom of the containing vessel, and precipitating the yeast that remains suspended in the liquor, by different substances.

4. Lime and caustic alkalies stop the vinous fermentation at once; but they ought not to be used, although recommended by some authors through ignorance of the consequences; for they all render the liquors worthless, and they soon run into putrefaction.

5. The fumes of burning sulphur have long been known and used to counteract the vinous fermentation. All that has to be done is to burn a quantity of sulphur in the vessel which holds the fermenting liquor, keeping its orifices closely stopped up, until the oxygen of the air present is changed into sulphurous acid gas.

On a small scale brimstoned matches may be lighted and put into the cask, after a part of the liquor has been drawn out, kept there ten minutes or more, and then the cask filled again with its liquor. A great advantage attends this anti-ferment, and that is, that being volatile, it escapes from the liquor, which then is as fit for continuing its fermentation as ever; for it only suspends, but does not totally extinguish, fermentation.

6. More recent discoveries recommend the addition of the black oxide of manganese, the properties of which, in precipitating the yeast, are similar to those of sulphurous acid. But perhaps the most convenient and safest process of all is the use of the sulphate of potash. A very small quantity of this salt will answer the purpose.

The means of counteracting the acetous fermentation, when apprehended, is not very different from that which checks the vinous. Racking off from the acetous ferment, whatever its nature may be, and exposure to a very high or a very low temperature, generally succeed. Seclusion from oxygen gas, or from the atmosphere, only retards, but does not prevent it. As to the putrefactive fermentation, charcoal, recently made, is the best application; but for this preventive there is seldom any need in families.

SECTION XI.

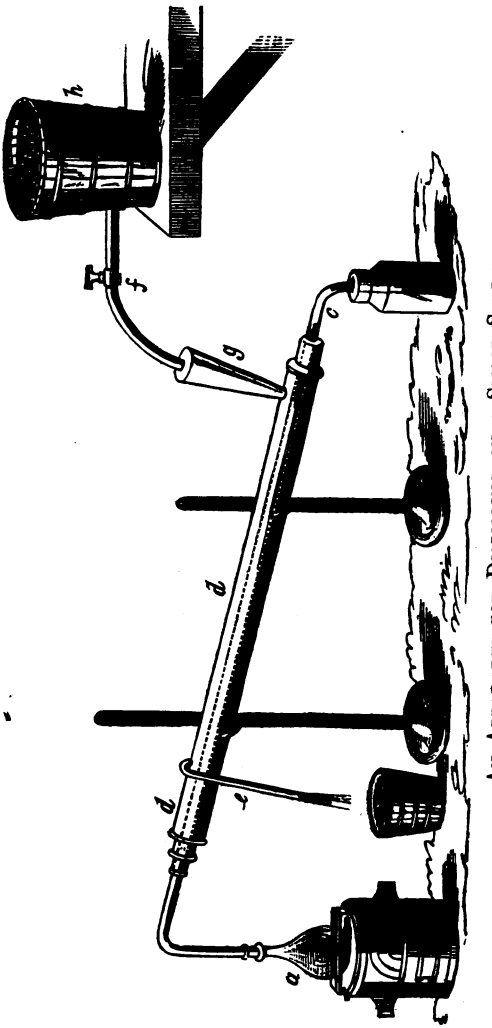
THE DISTILLATION OF SIMPLE WATERS, &c.,

Is very generally employed for the separation of a volatile body from other substances that are not volatile, or only partially so.

Notwithstanding there is a vast variety of small stills and alembics presented for our choice, we have annexed the diagram representing a small apparatus that may be made of tin, and will be found most useful and at a very trifling expense for the distillation of water, essences, oils, and spirituous liquids in small quantities.

DESCRIPTION OF THE DIAGRAM.

The vapour issuing from the large vessel, *a*, which may be made of tin or earthenware, over the furnace, or placed over a commonly used fire, passes into the long tube *c*, *c*, which is contained in a larger one of tin, zinc, or wood, *d*, *d*.



AN APPARATUS FOR DISTILLING, ON A SMALL SCALE.

The space between the two tubes is kept filled with cold water, which comes in by the tube and funnel *f g*, while the water that has become warm, flows out from the tube *e*. Thus the vapour is completely condensed, and is collected in the receiver *b*; *h* is an elevated tub or reservoir, kept well supplied with cold water.

Plants for distilling should be gathered fresh, when so directed, and in flower, and if to be kept, they should be dried in the shade and in a current of air, if not immediately wanted, and transferred to paper bags. The careless practice of allowing them to remain on floors robs them of full 50 per cent. of their aromatic properties. Herbs for this purpose are mostly used when dried, although more elegant results come from fresh-gathered herbs. The subjects being lightly bruised, about three times their quantity of cold spring water should be added thereto; more or less of this addition as the herbs are more or less juicy. Dry herbs will require much more water, and it will be safe to add this fluid, so that when you have drawn off a sufficient quantity of the product, there should remain in the vessel enough to prevent burning, or an empyreumatic flavour. Years ago, fine yeast was made use of as an auxiliary, so also vinegar. Should any drops of oil collect on the surface of the water, they should be taken off with care, and put into small glass phials. The addition of one-twentieth part of their weight of proof spirit to each will ensure their keeping well.

There are means adopted for the preservation of flowers, &c., which will be found in the miscellaneous recipes of this work. The French excel in these productions, and they may be purchased in Paris and London in such excellence, and at such prices, as to render our manipulations of little importance.

SPIRIT OF ROSEMARY.

Oil of rosemary	6 oz.
Oil of lavender (spike) . . .	1 oz.
Allspice	4 oz.
Cassia berries	6 oz.
Rectified spirits of wine . . .	2 galls.
Water	2 galls.

Distil off 3 gallons.

Another method.

Oil of rosemary	4 drachms
Foreign oil of lavender . . .	1 oz.
Spirits of wine	3 pints

Enclose these in a glass bottle, which must be safely corked and sealed, and allowed to digest for ten days with gentle heat.

ROSEMARY WATER.

The method of procuring this water by means of the cold still, being thus briefly shown, will be sufficient for a similar process with any other plant or flower. The rosemary ought to be gathered when in

its perfection, and with the morning's dew upon it; lay it lightly, and not much handled, upon the plate of the still, covering it with the conical head, and affixing a glass receiver to the nose of it. Then get up a small governable fire of charcoal under the bottom, continuing a regular and sufficient heat, as long as any liquor comes over into the receiver. When nothing more is observed to come over, take off the still head, and remove the plant, putting a fresh one in its place, and then proceed as before. Repeat the operation till you have got a sufficiency of the aromatic water for your purpose. Put these products into clean dry bottles, stopped closely, and in a cold situation, for some days; they will become limpid and highly impregnated with the taste as well as with the scent of the plant. After a month's practice your products will be as satisfactorily performed as though you had been twenty years engaged in producing them.

HUNGARY WATER.

This is represented by German writers to be the genuine recipe whereby that highly-prized lotion was made for a Queen of Hungary.

The tops and flowers of rosemary, just gathered, 2 parts
Spirits of wine, treble distilled . . . . . 3 parts

to be macerated in a closely stopped vessel, and to remain in that state for forty-eight hours, in a warm

situation, then to be distilled in an alembic. The quantity to be taken internally, once a week, is 1 drachm, in any suitable vehicle, as a cordial. It stands in high repute as a cosmetic. The French production in the vicinity of Montpellier has the highest repute, the climate of that delightful country being extremely favourable to the growth and perfection of the plant.

JASMINE WATER.

Take white jasmine flowers 10 oz., essence of bergamot 5 drops, spirits of wine 2 quarts, water 1 quart. Infuse in a closed vessel three days; then draw off by distillation half a gallon, and sweeten moderately with powdered loaf sugar.

JAMAICA PEPPER WATER.

Jamaica pepper	1 lb.
Water	5 galls.

Draw off 2 gallons with a briskish fire. The making of this water in an alembic is attributable to the weight of the oil of this spice.

SPIRITUOUS JAMAICA PEPPER WATER.

Jamaica pepper water	½ lb.
Proof spirit	3 galls.
Water	2 galls.

Distil off 3 gallons. It is an agreeable cordial of much warmth, and may supply the use of the aromatic water.

SPIRITUOUS CINNAMON WATER.

Cinnamon bark, broken . . .	1 lb.
Proof spirit	1 gall.
Water	1 gall.

Steep the cinnamon in the liquor three days, then distil off 1 gallon.

CINNAMON WATER.

Cinnamon bark, bruised . .	1 lb.
Brandy	1 pint
Water	1½ gall.

Let these macerate three days, then distil off 1 gallon. This is an agreeable aromatic water, possessing in a high degree the fragrance and cordial virtue of the spice.

PENNYROYAL WATER.

Pennyroyal leaves, dried . .	1½ lb.
Water	1¾ gall.

Draw off by distillation 1 gallon. This water possesses considerably the taste, smell, and virtues of the plant. It is highly recommended in juleps, for hysteric persons. An infusion, made strong, of the herb in boiling water, may answer nearly the same purpose, in which case the herb should be used fresh. Peppermint and spearmint waters are made by similar processes.

LAVENDER SPIRIT.

Soak 2 lb. of fresh gathered lavender flowers in a gallon of proof spirit, close covered up, for a week. Strain and filter.

SPIRIT OF LAVENDER.

Lavender flowers, fresh gathered	7 lb.
Spirits of wine, highly rectified	7½ galls.

Draw off by distillation 5 gallons and a pint.

Another method.

English oil of lavender	3 oz.
Essence of bergamot	1 oz.
Essence of ambergris	5 drachms
Best rose water	1 quart
Highly rectified spirits of wine	7 quarts

If the product should be cloudy, which may be the case if the spirit is not of great strength, fine it with a little powdered alum, shaken up with it in a bottle, allowed to settle for two days, and then filtered and bottled for use.

BERGAMOT SPIRIT.

Rectified spirits of wine	1 gall.
Water	1 gall.
Best oil of bergamot	½ oz.

First kill the oil with some of the spirit in a phial, this add to the diluted spirits, and distil by a water heat, drawing off not more than 6 quarts.

SPIRIT OF ORANGE PEEL.

Thin yellow rind of Seville oranges.	2 oz.
Water	1¾ gall.

Distil off 2 quarts with a brisk fire.

ESSENCE OF PEACH KERNELS.

Kill 1 oz. of the essential oil of bitter almonds in a pint of highly rectified spirits of wine. Put it in small glass phials, which cork well and seal, and label them "POISON." Only a few drops of this dangerous product may be used at a time for flavouring pastry and cordials.

CONCENTRATED ESSENCE OF GINGER.

Digest 8 oz. of the best Jamaica ginger in 1 quart of spirits of wine for twelve days, then strain, filter, and bottle it for use. This may be made yet more pungent by the addition of a trifling quantity of essence of cayenne.

Another much stronger.

Best Jamaica ginger, bruised .	6 lb.
Rectified spirits of wine . . .	1¼ gall.

Macerate these for a fortnight in a closely stopped bottle, then press out the liquid, strain it, and draw off half a gallon by distillation. This is used by makers of cordials and pleasant drinks, saving much trouble at the time wanted.

ESSENCE OF RATAFIA.

Essential oil of almonds 1 oz., spirits of wine 1 pint; mix these by agitation. This is used chiefly in making noyeau, cordials, &c., &c.

ESSENCE OF LEMON.

Pare off the thin yellow rinds of any number of lemons, first clean wiped, put them into an earthenware jar or bottle, and pour on a sufficient quantity of spirits of wine to cover them. In a week all the oil of the peels will be absorbed by the spirit; strain, filter, and bottle it. Although simple, this method is perfectly successful.

SPIRIT OF PIMENTO.

Allspice, bruised	5 oz.
Water	2 quarts
Proof spirit	2 galls.

This is an excellent stomachic and carminative, and is frequently added to domestic cordials, to invest them with its valuable properties.

ESSENCE OF VANILLA.

Spirit of ambrette	1 quart
Cloves, bruised	30 grains
Musk	7 grains
Vanilla	12 oz.

Let these digest in a closely covered jar or bottle for

twelve days; then strain, filter, and remove it into smaller glass bottles, which must be well corked and sealed. It is a delicate product.

ESSENCE ROYALE.

Sub-carbonate of potass . .	10 grains
Civet	10 grains
Ambergris	2 scruples
Musk	1 scruple
Oil of cinnamon	6 drops
Oil of rhodium	4 drops
Otto of roses	4 drops
Rectified spirits of wine . .	4 fluid oz.

Infuse these three weeks, then filter them twice through flannel, and bottle them. As an estimable anti-spasmodic, a few drops on a lump of refined sugar will be appreciated.

SPIRIT OF NUTMEGS.

Nutmegs, coarsely bruised . .	4 oz.
Proof spirit	2 galls.
Water sufficient to prevent an empyreuma	

Distil off 1 gallon, which filter and get into small bottles as soon as possible, corking and sealing effectually. It is a very grateful cordial, and frequently used in making other delicious liqueurs.

SPIRIT OF JUNIPER.

Caraway seeds, bruised . . .	2 oz.
Fennel seeds, bruised . . .	2½ oz.
Juniper berries	15 oz.
Water	1 quart
Proof spirit	1 gall.

Mix these well together, let them remain a night, and draw off with a still 1 gallon. It is diuretic, and partakes of the flavour of gin.

TINCTURE OF HOPS.

Fresh prime hops	12 oz.
Proof spirit	1 quart

Let these digest for twenty days, strain, filter, and bottle them. It is a narcotic like unto opium, but not so strong in its unpleasant consequences. It may be added to weak worts, while in the cooling process, to avoid their turning to acidity, particularly in warm weather. In domestic wines it would act similarly, adding, however, not so much of it as to be perceptible to the palate.

TINCTURE OF CORIANDER.

Coriander seeds, bruised . .	1 lb.
Spirits of wine	1 gall.
Laurel leaves, green	1 oz.
Bitter almonds, blanched . .	½ oz.

Infuse these for seven days, strain, and filter them perfectly clear, then bottle them, corking the bottles safely.

AROMATIC TINCTURE.

Jamaica pepper, bruised. . .	2 oz.
Thin yellow rind of 1 lemon	
Brandy	2 pints
Bitter almonds, blanched . .	½ oz.

Infuse these, without heat, seven days, strain, filter, and bottle. This simple tincture will be found to answer the intentions of more costly preparations of this sort. It is rather too hot when taken alone, but if sweetened a little and mixed with other liquors, it will be very acceptable to cold stomachs.

TINCTURE OF THE BALSAM OF TOLU.

Balsam of Tolu	1¾ oz.
Thin yellow rind of 1 Seville orange	
Rectified spirits of wine	1 pint

Let these infuse with gentle heat till the balsam is totally dissolved, then strain and filter the tincture. All the virtues of the balsam will be fully imbibed. Mind that your balsam is genuine. In coughs and other complaints of the chest, two teaspoonfuls or more may be taken on loaf sugar with marked advantage. Some persons prefer the syrup. An ounce of this tincture properly mixed with 2 lbs. of simple syrup make the "balsamic syrup."

EXTRACT OF HOPS.

Wet any quantity of fresh mellow hops with cold

soft water, and subject them to the pounding process in a mortar or other fitting apparatus; press out the water from them through your hair cloth or strong sieve, and evaporate it to the consistency of honey. It is an admirable tonic and bitter, in portions of 5 to 20 grains. As a flavour to pale ale, it is equally handy and estimable. In weak ale worts, in summer-time, while running into the underback, it will be found an excellent provision against acidity setting in.

EXTRACT OF MALT.

Put half a bushel of ground pale malt into a sweet earthenware vessel, and pour upon it, from a watering-can (such as is used in gardening), water that has just boiled, and which is now at about 185 degs. of heat. Stir the mass well up and cover it close; so let it remain thirty hours, after which strain it through a coarse cloth or hair bag, and transferring it into a preserving-pan placed over a dull fire, stirring and skimming it all the while until it is viscid enough to hang in strings when discharged from a spoon, and in consistency like thick treacle. Store it away in earthenware little jars, and cover it with wetted bladder. Do not attempt to make a second mashing for this purpose, as you would run the risk of a souring process. It may be seen that from this and the extract of hops with a proper modicum of good fresh yeast, excellent ale may be made with, comparatively, but little trouble and at the slightest cost. This is a valuable de-

mulcent in coughs, taken the first thing in the morning and during the day. It is also an anti-scorbutic of the very first order, as formerly experienced in our Royal Navy.

STOMACHIC ELIXIR.

Curaçoa oranges, sliced . .	1 oz.
Virginian snake root, sliced .	½ oz.
Cochineal	½ drachm
Gentian root	2 oz.
Cognac brandy	2 pints

Infuse for five days, then strain and filter the infusion, which possesses virtues sufficient to recommend it to the most sceptical. Two or three teaspoonfuls in a glass of light wine, or in other non-irritant ingredient, may be taken as a dram.

DR. STOUGHTON'S CELEBRATED ELIXIR.

This compound, which created such a sensation upwards of half a century ago, is thus made :—

Pare off the thin yellow rind of 6 Seville oranges, and put them into a stone bottle with 1 oz. of gentian root scraped and sliced, and ½ drachm of cochineal. Pour over these ingredients a pint of cognac brandy, shake the bottle well several times during that and the day following, then let it remain three days to settle, and filter it off into small bottles for use. Take one or two teaspoonfuls morning and afternoon in a glass of wine or in a cup of tea. This is an elegant preparation, little differing from the compound tincture of gentian

either of the London or Edinburgh dispensatories; the former adding ½ oz. of canella-alba (white cinnamon), and the latter only substituting for cochineal of Stoughton ½ oz. of husked and bruised seeds of the lesser cardamom. On deciding on their respective merits, it should seem that Stoughton's elixir has the advantage in simplicity, and perhaps altogether as a general stomachic. Indeed, for some reasons, both the London and Edinburgh compositions may have their respective claims to preference; in a cold stomach the cardamom might be useful, and, in a laxative habit, the canella-alba. As a family cordial to be at all times safely resorted to, there is no need to hesitate in recommending Dr. Stoughton's Elixir!!

EAU D'ANGE.

Angel water.

Cinnamon bark, broken . .	½ oz.
Cloves, bruised	1 oz.
Sweet flag root	½ oz.
Gum benzoin	8 oz.
Storax	4 oz.
Coriander seeds	2 drachms

Macerate these in 1 gallon of scalding water three hours, then strain and filter till quite clear. The colour of this will be pale straw; if it is wanted without colour, as water, add 1 quart more water, and distil off 4 quarts. This should be quite limpid, and will keep several weeks; preparations by infusion of

these ingredients soon spoil. It is used more as a perfume than a cordial.

EAU DE BOUQUET.

Syrup of cloves	½ oz.
Spirit of violets	¾ oz.
Sweet-scented flag, bruised	1¾ oz.
Long Cyprus, bruised	2 oz.
Lavender, bruised	2 oz.
Essence of neroli	1 scruple
Essence of jasmine	5 drachms
Sweet-scented honey-water	1 oz.

Blend these well by agitation, then add a few grains of musk and ambergris. Remember to have the containing vessel very closely stopped. Let them infuse for ten days, then strain off and filter them till perfectly clear, and put into small flint glass phials, which should be particularly well corked and sealed. Keep it out of the rays of the sun, in a cool situation. Sweeten it with powdered loaf sugar. It is a very elegant cordial, and should rank amongst our best liqueurs.

EAU DE MARÉCHALE.

Oil of lavender	2 oz.
Oil of cloves	2 oz.
Essence of bergamot	2¼ oz.
Essence of ambergris	4 oz.
Oil of sassafras	25 drops
Oil of marjoram	40 drops
Musk, genuine	40 grains
Rectified spirits of wine	8 pints

Effectually dissolve the oils with some of the spirit, put all the above into a stone jar, bunged closely down, shake them three or four times daily for three days, then let them settle for a week. This done, strain clear, and filter them through flannel twice, or until the product is beautifully bright. Bottle and cork it with all due care, and keep it in a cool dark place.

EAU DE COLOGNE.

Essence of neroli	1¾ drachms
Essence of cedrat	2 drachms
Essence of lemon	3 drachms
Oil of rosemary	1 drachm
Rosemary tops and flowers .	3¼ lb.
Essence of bergamot . . .	3 oz.
Eau de melisse des carmes .	2¾ lb.
Oil of almonds	1 oz.
Rectified spirits of wine . .	12 lb.

Mix all these intimately by repeated agitation, the oils being thoroughly killed with the spirit. Distil this in a water-bath and keep it cold, and in the dark. The bottling and corking of it should be of the first class. With powdered loaf sugar it is converted into a first class ratafia.

EAU DE MILLE FLEURS.

Spirits of jasmine	1 drachm
Essence of lavender	¼ drachm
Essence of bergamot	1 drachm
Orange flower water	4 oz.
Rectified spirits of wine . . .	4 oz.

Infuse these for ten days in a closely stopped vessel, then strain and filter them until they become beautifully clear. Bottle, cork, and seal them effectually. All of this class must be kept in the coldest part of the premises, and where no light can penetrate.

EAU DIVINE.

Essence of lemons	2 drachms
Essence of bergamot	2 drachms
Yellow rind of 1 Seville orange	
Rectified spirits of wine . . .	2 galls.

Draw it off in a bath heat by distillation. Dissolve thoroughly 8 lb. of refined sugar in 4 gallons of cold spring water. Filter these through flannel if not beautifully fine, and add 9 oz. of orange-flower water.

EAU DE MELISSE DES CARMES.

Nutmegs, bruised	½ oz.
Coriander seeds, bruised . .	½ oz.
Cloves, bruised	2 drachms
Cinnamon bark, bruised . .	2 drachms
Dried angelica roots, bruised .	½ oz.
Dried balm leaves and tops .	3 drachms
Dried lemon peel	1 oz.

Steep all together for ten days, then distil it in a water-bath; distil it again, and when most carefully bottled, &c. &c., it should be stored in a cold cellar. The self-denying Carmelites at one time were the possessors of this recipe. It is reported to be now the pro-

perty of the Company of Apothecaries of Paris, who sell large quantities of this highly prized water.

SYRUP OF VIOLETS.

The fresh flowers	2 lb.
Boiling water	5 lb.
Powdered loaf-sugar	7 lb.

Infuse the flowers for two days, then press out the liquor, and in it dissolve thoroughly the sugar; then bring it to a thick syrup by continued boiling, skimming, and stirring. Bottle and cork safely.

RASPBERRY SYRUP.

Pick 10 quarts of ripe raspberries free from stalks and all other refuse, put them into a clean earthenware pan, and bring them to a fine pulp by pressure of the hands; then set them aside, covered up, in a warm situation for four or five days, when fermentation will commence, which will prevent the syrup from becoming a jelly. Filter this, slightly warmed, through your flannel bag until it is fine and clear. Measure your juice, and to every pint of it add 2 lb. of best loaf sugar, powdered and sifted. When the sugar is thoroughly dissolved, put the product into a copper preserving-pan, and stir and skim until you have obtained a clear transparent syrup. It must not continue boiling more than a minute, two or three times, for we desire bouquet as well as flavour; a tinned iron saucepan would change the colour of your

preparation to a dark opaque state. Observe to take away all the scum just as it rises, to assist in which a very small quantity of cold water may once be added. As soon as it is cold, bottle it for use, corking and sealing it well.

MULBERRY SYRUP.

Strained juice of ripe mulberries . .	1 lb.
Cloves, bruised	⅛ oz.
Cinnamon	¼ oz.
Loaf sugar, in powder	2 lb.

Simmer these gently over a slow fire for twenty minutes, then boil them one minute, and having skimmed off every particle of impurity, run the syrup through flannel while hot, and set it aside, covered up, six hours; then bottle it, corking and waxing well. These preparations should be kept in a cool place.

SYRUP OF CLOVES.

Fine racy cloves, bruised . . .	½ lb.
Yellow rind of 1 orange	
Bitter almonds, blanched . . .	⅛ oz.
Refined sugar, powdered . . .	4 lb.
Boiling water	2 quarts

Pour the boiling water upon the rest of the ingredients, and set the vessel near the fire three or four hours, stirring the contents of it well; then boil it up during five minutes, skimming well. Strain the liquor, and clear it with the whites of 2 eggs, beaten to a

froth with a little cold water. Now boil rapidly till the syrup is thick enough, and rich; when it is cold, bottle it, and use the best corks. A little genuine olive oil poured on the top of these syrups, say to the thickness of an inch, will ensure their keeping well.

SYRUP OF LEMONS.

Thin yellow rinds of fresh lemons .	2 oz.
Loaf sugar, powdered	8 lb.
Citric acid	1 oz.
Spring water	1 gall.

Boil the sugar and water twenty minutes, making a clear rich syrup; remove it from the fire and add the rinds with the acid, stir quickly a minute, cover up close, and let remain till next day. Then filter till beautifully transparent, and bottle it, corking, &c., securely.

SYRUP OF CINNAMON.

Refined sugar	2 lb.
Cinnamon bark, broken	6 oz.
Preserved or fresh strawberries . .	$\frac{3}{4}$ oz.
Boiling river water	2 lb.

Infuse these closely covered up for a week and placed near the fire, then strain and filter them till fine and clear. The sugar, powdered and sifted, must be added last.

SYRUP OF MORELLO CHERRIES.

Clear any quantity of these cherries from decayed

ones and other refuse, put them into a clean earthenware vessel, and take away the stones; then mash well the fruit, and press out its juice. It must remain forty-eight hours in a cool cellar, and then be filtered quite clear; add now 2¼ lb. of refined sugar to each pint of the juice, and boil together until totally dissolved, and rendered transparent by skimming. Then bottle it off, using best corks and olive oil.

SYRUP OF GINGER.

Best Jamaica ginger, bruised . . . 8 oz.
Boiling soft water . . . . . 3 pints
Seville orange thin yellow rind

Macerate these six hours, then strain, and add powdered loaf sugar to them by degrees, boiling them all the time, and skimming them, to get them into a thick, rich, clear syrup, which, when cold, you may put into small glass bottles for use.

SYRUP OF ORANGE JUICE.

Juice of oranges of any sort, strained and filtered 2 lb.
Powdered loaf sugar . . . . . 4 lb.
Thin yellow rind of oranges, *q. s.* to bring it to a straw colour.

Let these be closely covered up in a stone jar for a week; then boil them for five minutes, and while they are yet warm, filter them through flannel. Put it when cold into transparent glass bottles for table

use, being highly useful in flavouring different sorts of punch, sherbets, &c. &c. It is requisite also in the making of first-class liqueurs and cordials.

SIROP D'ORGEAT.

(Syrup of Almonds.)

Bitter almonds, blanched . .	2 oz.
Sweet almonds, blanched . .	½ lb.
Orange-flower water	1 oz.
Refined sugar, broken up . .	1¾ lb.
Water	

Put the orange-flower water and almonds into a mortar and reduce them to a paste; then add three-quarters of a pint of the purest water. Strain out the liquor with a coarse cloth or hair cloth bag into a clean bowl, and add the rest of the water to the almonds by small quantities till all is used up. Now add the sugar, and boil all for ten minutes, skimming it well. Let it cool, and be careful to stir it well two or three times daily for ten days; then, if fine, bottle it, but if there should be an indication as of the formation of flocks, continue the shaking of the bottles occasionally.

HUILES LIQUEUREUSES.

DE VANILLE.

Simple syrup, got up beautifully clear, and highly rectified spirits of wine added to it; also the essence of vanilla to flavour it highly or otherwise, according to your general requirements.

HUILE DE FLEURS D'ORANGE.

Simple syrup as above, and the best orange-flower water, blended intimately.

CRÊME D'ORANGE.

Simple syrup and French orange-flower water well mixed, with the addition of a little genuine cinnamon bark, broken into small pieces, and of the thin yellow rind of Seville oranges, not enough of which may be used to cause a predominancy of both or either. These nice, inexpensive compounds must prove acceptable and very useful for sweetening (instead of sugar) grog, sherbets, &c. &c.

SECTION XII.

A LIST OF UTENSILS

Requisite for the Brewhouse, Still-room, and Cellar of a Gentleman's Family, consisting of twelve to sixteen persons, and occasionally entertaining company, and where the size of the casks does not generally exceed 36 gallons, or barrels.

1. A well-set copper or boiler, capable of holding 60 gallons conveniently, and a lid or cover for the same.

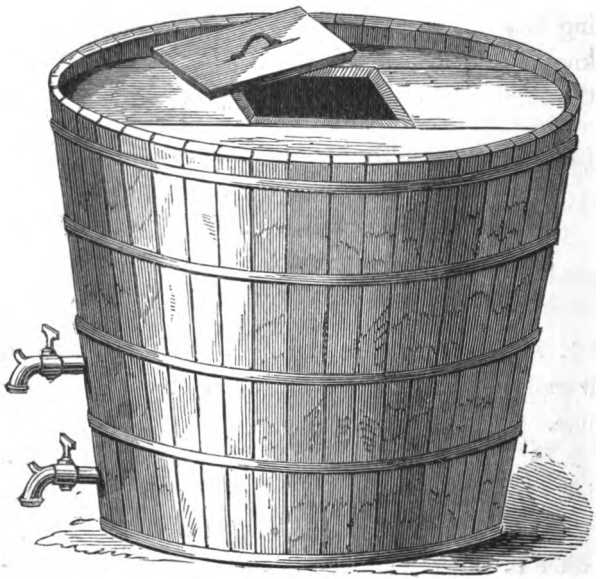
2. A mash-tub that will hold 40 gallons, with a cock near the bottom, large bore enough to run off the liquor quickly, and with a wire-gauze strainer, fixable to the tap inside the tub; this is far preferable to the old spigot and faucet.

3. The underback, corresponding with the size of the mash-tub.

4. Three or four coolers, not more than 12 inches deep, and capable of holding 18 gallons each. A cock fixed in each.

5. A fermenting-tun, corresponding in size with your mash-tub. Some scientific brewers would require an additional one.

6. A convenient complement of 18 and 36-gallon casks for storing in. And here let me recommend to the notice of operators the "bell cask," as possessing



IMPROVED BELL CASK, FOR WINES AND BEERS.

real, solid advantages over those of the common description. Having two cocks affixed, the last half of the contents may remain unmolested, unshaken, until it can be conveniently bottled. The liquor remaining in these casks as it descends every time the tap is turned, is remarked universally to drink more lively, sound, and full-flavoured than usual, for there is formed on the top of the liquor a head, which keeps in-

creasing in thickness, and doing good service, as it goes down in the cask, and prevents, in a wonderful degree, the action of the air upon the surface of the beer or other liquor. Many other reasons for choosing casks of this shape may be adduced, but I never knew any one who, having adopted them, returned to the old shaped ones.

7. A sieve, strainer, or fine-worked basket, to keep back the hops, when the boiled liquors are run through it.

8. Three or four laths of white wood (tasteless), graduated, to indicate the number of gallons in each vessel, they being put into the centre of the liquor.

9. A brace and several bits, to suit the different sizes of racking and bottling cocks.

10. Two racking cocks, each ½ inch bore.

11. Two wine bottling cocks, 1½ inch long in the nebs.

12. Two porter or cider cocks, long nebs.

13. A coarse linen bag to hold the corks in, which must be kept, when not in use, in a dry room, for if in the cellar, they will grow soft, in which state you cannot work them.

14. A leathern boot to buckle on the knee, to hold the bottles in, upright, when you are corking them.

15. Two common corkscrews.

16. A patent corkscrew, to draw the corks of your old bottled wine without shaking it.

17. A cork driver made of heavy wood.

18. A partitioned basket, to carry bottles in, standing them upright.

19. A white whisk, to beat the finings up with.

20. Three flannel or linen bags, in form like a jelly bag, to run the bottoms of your wines through.

21. A pair of pliers, to draw the vent pegs with.

22. Bungs, corks, and vent pegs.

23. Two frets, or middle-sized gimlets.

24. A staff, with a chain at one end, to rummage the wines, &c., when fining them.

25. Canister, with shots and pieces of lead, and two cloths, to wash bottles (and beware of any that have contained oil), but if you should happen to spoil your shot with an oily bottle, get fresh horse-dung and a little sawdust, rub them well in it, wash them with cold water, after which, shake them well in a bottle with a little vinegar, they will then act as well as new ones.

26. A cork-drawer, to get the corks out of empty bottles.

27. A small cooper's adze.

28. A dozen or more of wooden bungs, of different sizes.

29. A dozen or two of zinc labels, with the names of the different wines and cordials, to hang on the bins and the exposed ends of the casks.

30. A spade, 2 birch brooms, and a rake, to level the sawdust on the floor.

31. A thermometer, which, when not otherwise employed, should be kept in your vault, so that, by

the aid of a chafing dish or stove, you may regulate the heat, and keep it as near to temperate as possible.

32. A saccharometer, to measure the degrees of sweetness of your liquors in process.

33. A cupboard fixed in your premises near the cellar to hold all the tools, so that they may be ready at hand when wanted, instead of your running here and there to get them.

34. Your tunning dish, with spout, should be of wood, as also bowls to lade with. Some, holding 1 gallon each, may also serve as measures.

35. An oar or paddle of the best sort to mash with, in beer brewing.

36. A hair cloth or canvas bag, for expressing juices with.

N.B.—When you have no further occasion for your tubs, casks, cans, bowls, &c. &c., let them be well scoured and put away in a dry, well-ventilated place.

A journal-book of the proportions of the several ingredients made use of in the production of each liquor, the length of time fermented, and at what degrees of the thermometer; also the state in which you found them when tapped, the length of time they were kept in the wood, and the temperature of the atmosphere they were kept in; all these, on being referred to the second year, or next season, would greatly assist the operator in future transactions of the same sort. The trouble of keeping such a register would be trifling, and in many cases the benefits arising would be vast.

NEW CASKS AND UTENSILS.

These are generally made of oak, and should, when brought home, be forthwith painted all over the insides with a thick solution of stone lime, then bunged up, and kept so for a week; then scalded and scrubbed out well with boiling water; after that, well rinsed with cold, and set in the open air to dry perfectly.

TO SWEETEN MUSTY CASKS AND TUBS.

To render sweet casks which from sheer carelessness have become musty, is not a very easy matter, and sometimes obliges the head to be taken out by a cooper, the cask well charred, and made up again. "Prevention is always better than cure," and if the bung was driven in closely, and the vent and cork holes well stopped, when all the liquor was drawn out, there would be a saving of time, trouble, and expense. For the remedy, take a peck of milking cows' fresh dung, and mix it thoroughly with a gallon or so of water, in which 2 lb. of bay salt and 1 lb. of alum have been boiled until totally dissolved; pour this, boiling hot, into the cask, and quickly bung it down closely, then roll the cask about well for ten minutes, and let it stand thus all night.

Next day take out the bung, rinse out with cold water two or three times, and then boil another gallon of water with 1 lb. of bay salt and ¼ lb. of alum; repeat the rinsing with this, and afterwards with

pure cold water, until it comes out as clean as it was put in. If not immediately wanted, bung it up tightly, and set it in a dry room or outhouse.

TO FINE ALE OR OTHER MALT LIQUOR WHEN AFFECTED BY THUNDER.

Put a gallon of the ale that is thick or cloudy into a saucepan with a large handful of new hops and a handful of common salt, boil them half an hour, and when the heat has fallen to 170 degs., put them into the barrel and stir them well for ten minutes; in two days the liquor will be as fine as rock water. This quantity is for a barrel, or 36 gallons.

ROPY BEER OR ALE

May be restored by this very old-fashioned practice. Tie up a small handful of hyssop in a bundle, put it into the cask, and stir it well with your staff for a quarter of an hour, then bung it down closely; the beer will be quite fine in a week.

CONTENTS OF CASKS IN GENERAL USE IN PRIVATE FAMILIES.

Hogsheads of wine	63 galls.
Hogsheads of beer	54 galls.
Barrels of beer	36 galls.
Kilderkins of beer	18 galls.
Firkins of beer	9 galls.

A gallon of wine fills 6 bottles.

GLOSSARY

OF ENGLISH AND FRENCH TERMS MADE USE OF IN THIS WORK.

Acetous.—Partaking in a less degree of the acid principle than "acetic."

Alcohol.—An ardent spirit extracted from vinous liquor, and, when very strong, so called by the chemists.

Aroma.—Is applied to the perfume and flavour of wine, either from nature or imparted by the infusion of foreign substances.

Attenuation.—The reduction of a heavy wort to a less specific gravity, as, from being viscid in a trifling degree, it is rendered a much thinner liquor.

Beer.—All ales, strong and weak, and porters, are herein called beers.

Bouquet.—The fine smell attached to wines, &c., of the first class, when the cask is first tapped.

Breaking.—The producing of large flakes in worts by continued boiling, which, when discovered, indicate that the right time has arrived for straining them off into your coolers.

Clairet.—Of a slight rose colour.

Dry Wines.—Not sweet wines: of this class are the Sillery French wines, found only at the tables of the opulent in England, some descriptions of Lisbon, Hock, &c.

Event.—Wines grown flat.

Foxed.—Possessing a harsh disagreeable taste, and produced generally by tunning beers when too warm, as also by the mode of adding the hops at the most proper time not being duly attended to.

Grist.—Ground malt, barley, oats, and other goods.

Heading.—A preparation which, being added to beers, causes them to have a creamy head, when poured out into glasses, pewter, &c.

Limpid.—Transparent, and leaving no deposit on being decanted.

Liquor.—A general term for all liquids, and sometimes for water, when it is directed to be added in the processes.

Marc.—The skins, husks, stalks, &c., remaining after the liquor has run off.

Must.—A highly disagreeable defect in some brewing goods; also a description of ill-fermented liquor. Also grape juice, and the juices of various fruits and vegetables. New wine.

Mousseux.—Sparkling effervescing wines; such are the majority of champagnes, &c. &c.

Pâteux.—Clammy wines.

Putrefactive Fermentation. — A change from the acetous, accompanied by a rotten fetor. The last stage of spontaneous decomposition.

Rancio.—Wine that has lost its colour; in England called "rusty" or "tawny."

Rape.—The residuum of fruits, &c., after the liquor is drawn off, by lying in a heap, heats, ferments, and is then an acetous ferment for future applications.

Saccharometer. — A useful instrument for ascertaining the amount of saccharine in any liquor.

Still wines.—Quiet wines of different strengths; wines non-mousseux.

Thermometer.—An indispensable instrument for ascertaining the degrees of heat in liquors, also of the temperature to which our products are subjected while in the various processes, also in the cellarage.

Tunning.—The filling of casks with the liquors for storing.

Velouté.—Full of softness to the taste.

Vin bourru.—Thick, ill-fermented wine, mere "must."

Vins de chaudière.—Spirituous and deep-coloured wines, and for these qualities much esteemed in England.

Vins d'entremets.—Wines of the table, taken between the dishes, and prior to the dessert.

Vins de liqueurs.—Rich, luscious French wines, constituting liqueurs by themselves in a small degree. Of such are the White Hermitage and Essentz (Hungarian), Straw Hermitage, &c.

Vins de paille.—Straw wines of first quality.

Wash.—Alcoholic liquors resulting from the vinous fermentation. These, being doubly distilled and rectified, produce alcohol.

THE END.