

# THE STILL ROOM



BY MRS CHARLES ROUNDALL

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Francis Grelon Lummeig  
The Locusts  
Oct-16<sup>th</sup> 1907

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## THE DISTILLING OF WATERS AND CORDIALS

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**T**HERE is no occupation that comes nearer to the work of gods than this occupation of distilling. By the application of fire, the purest of the elements, we separate from gross, substantial bodies those subtle essences which alone gave them distinction and charm. The distiller can but smile at the impotence of those who are unable to conceive the possibility of a post-physical human existence, for, day by day, as he stands before his stills, he sees the miracle performed whereby the spiritual, the essential, is separated and continues to exist apart from the material body in which it previously dwelt.

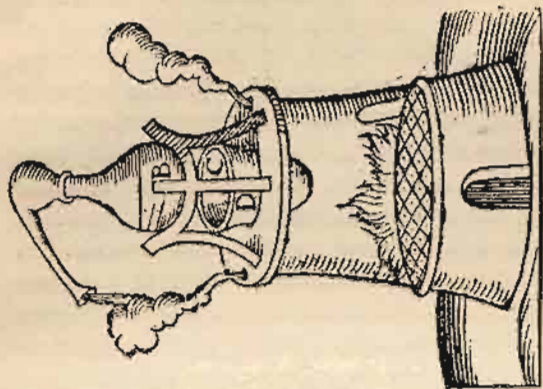
The work is worthy of fine natures, and should be undertaken with a mind full of reverence.

The practice of distillation dates back to very early times, the oil of cedar mentioned by Dioscorides having been obtained by boiling the oleoresin with water, and condensing the vapour of the oil in sheep's wool spread on sticks placed across the top of the vessel. But more elaborate stills, consisting of cucurbit, alembic (or head) and receiver, were in use in times not much more recent. Water-baths, sand-baths, and other means for regulating the heat applied to the body of the still were used as early as

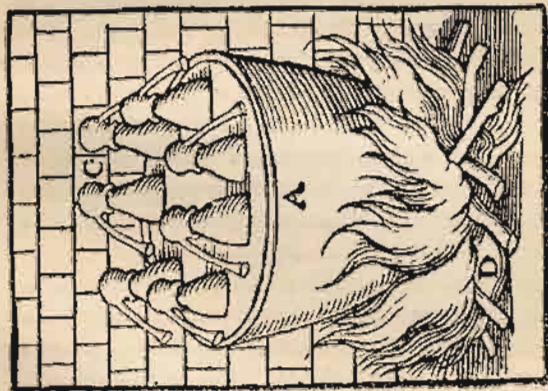
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## Distilling

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DISTILLING BY HEAT OF STEAM.  
(From Peter Morway's "Treasure of Enonymus," 1559.)



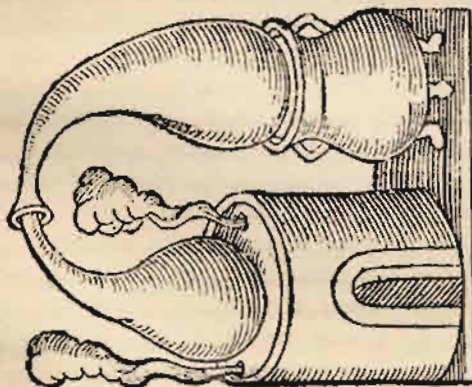
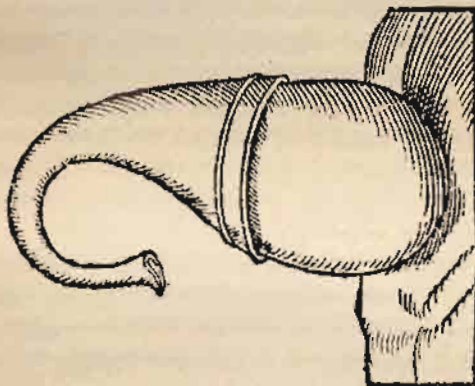
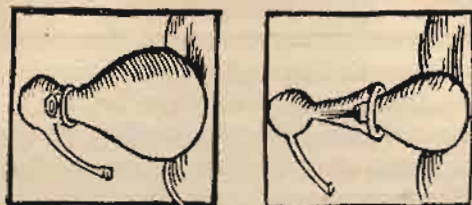
BALNEUM MARIE.  
(From Peter Morway's "Treasure of Enonymus," 1559.)

## The Still-Room

the eighth century by the Arabians. It was at about this time, also, that distillation of alcohol was first practised.

The distillation of pure alcohol from mixtures containing it, is really only worth attempting under somewhat elaborate conditions, and on a fairly large scale. The distillation of essences and aromatic waters, and of a number of liqueurs may, however, be quite well practised on the domestic scale. A perfectly made tin-lined copper still, with pewter or copper head, neck, and worm, the latter fitting in a wood or metal tub, is the principle article required. It is desirable to have the cucurbit fitted with a perforated water-bath, or metallic basket, to contain the herbs or seeds which are to be heated in the water or alcohol. These substances, thus saved from contact with the inner surface of the cucurbit, are not liable to burn or to stick. For certain things, also, it is desirable to be provided with an unperforated bain-marie when it is wished not to subject the materials to a heat quite equal to the temperature of boiling water.

All the joints of the still and the tubes connected with it must be absolutely vapour-proof, or the subtle gases of the spirits and essences will discover the outlet and escape. The water in the tub containing the worm must be kept cold, a few jugfuls being drawn from its surface at intervals and replaced by fresh cold water. Where possible, fresh plants should be used for distilling purposes, as they more



SOME GLASS DISTILLING VESSELS.

## The Still-Room

readily yield their essential oils than is usually the case with dried plants.

*Aromatic Waters.*—For the distilling of simple aromatic waters about a gallon of water should be allowed to four pounds of the fresh herb, or one pound of the dry herb, and about two quarts should be distilled over. Peppermint water, damask-rose water, orange-flower water, spearmint water, and elder-flower water are prepared in this way. For dill water, caraway water, fennel water, and cinnamon water, a pound of the bruised fruit is mixed with two gallons of water, and one gallon is distilled over.

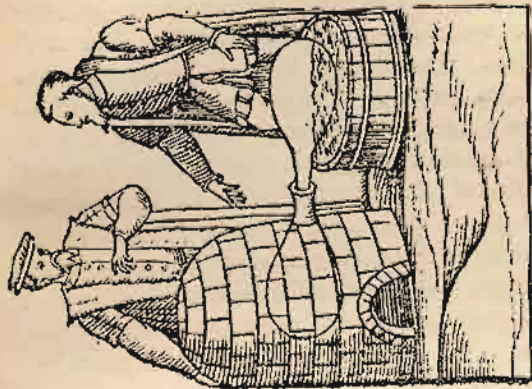
*Rosemary Water* is made by mixing a gallon of water, eleven and a half gallons of rectified spirit, and fourteen pounds of rosemary flowers and leaves, and slowly distilling off ten gallons over the water-bath.

*Simple Lavender Water* is made in the same way, substituting lavender flowers for the rosemary flowers and leaves.

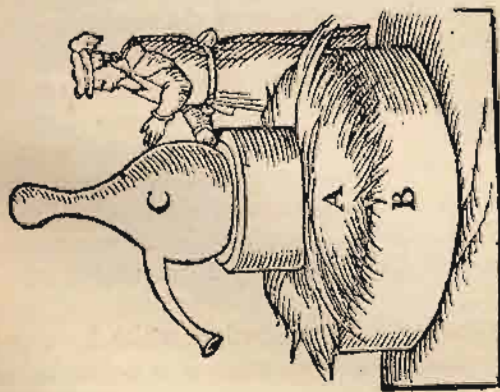
*Beauty Water* is made by mixing half a gallon of rectified spirits, a gallon of water, a pound of the flowering tops of thyme and a pound of those of marjoram, and distilling off a gallon.

*The Distilling of Essences.*—The following is a summary of the directions given by M. Deroy of Paris, a well-known manufacturer of excellent stills and other appliances connected with distilling, for the distilling of essences or essential oils,

## Distilling



ALCHEMIST WITH HIS SERVANT.  
(From Peter Morrey's "Treasure of  
Enonymia," 1559.)



DISTILLING BY HEAT OF FERMENTING MANURE.  
(From Peter Morrey's "Treasure of  
Enonymia," 1559.)

## The Still-Room

The generality of plants give their maximum of essence when they are dealt with in their fresh condition. Some few, however, produce more when they are dry. The produce of the same kind may vary for divers reasons. The moment of its harvest and the atmospheric conditions under which it is effected, the nature of the soil, the quality of the plants, and their more or less favourable exposal, exercise a sensible influence upon the production.

Substances, previously either cut to pieces, incised, rasped, ground, or crushed according to their nature, are placed in water of ordinary temperature for macerating.

The proportion of water used is mostly of three to four times the weight of the substance. The length of time for soaking varies from twelve to forty-eight hours according to the dryness and the divided state of the substance. Some light essences extracted from fresh flowers (from roses, for example) are obtained without previous maceration.

The matter is placed in the still with the water into which it has been macerated. Sea-salt is sometimes added for the purpose of retarding the point of boiling. It is known that salted water only boils at  $108^{\circ}$  Centigrade, say about  $229^{\circ}$  Fahrenheit.

Those who follow this method, which is the one most generally employed when it is a question of exhausting plants which contain rather heavy oils, certify that the essences separate themselves more

## Distilling



"This instrument, named the Pellicane, which is a Vessel for Circulating, serveth to none other ende and purpose, than for to Circulate the Quintessence, which by the Arte of dystilling is drawn."



A 16TH-CENTURY STILL, WITH CONDENSER JACKET TO HELM OF STILL.

## *The Still-Room*

easily if distilling is effected at a little over  $100^{\circ}$  C. (water boiling-point).

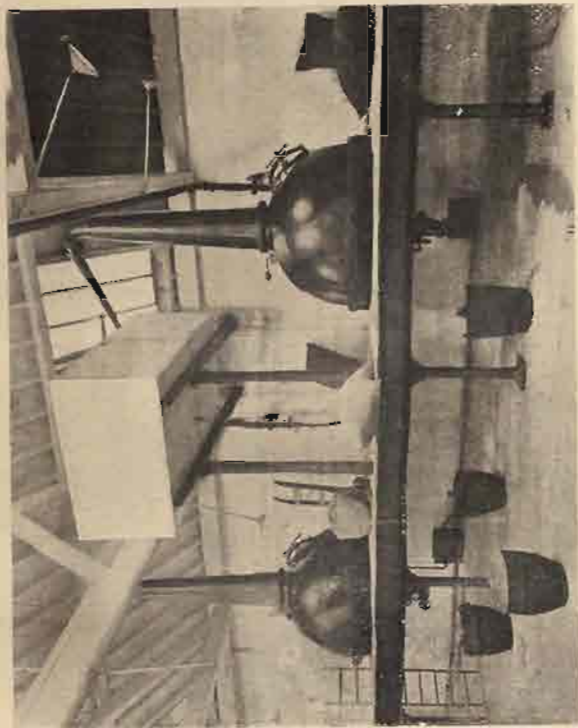
Those who criticize this proceeding pretend that it has the disadvantage of injuring the quality of the essences obtained.

Thus the necessary quantity of sea salt required for the complete salting of the water is rarely used, which is to say about 40 per cent. ; the majority of distillers limit themselves, according to the case in hand, to putting in 20 per cent. and sometimes only from 12 to 15 per cent., considering this a sufficient quantity to obtain a satisfactory result.

During the course of the distillation, the water in the refrigerator should be renewed by ordinary means when distilling essences which remain fluid at a normal temperature. Whilst, as for the crystallizable essences such as aniseed, China-aniseed, caraway, fennel, peppermint, and roses, care should be taken to keep the worm at about  $30^{\circ}$  or  $40^{\circ}$  Centigrade.

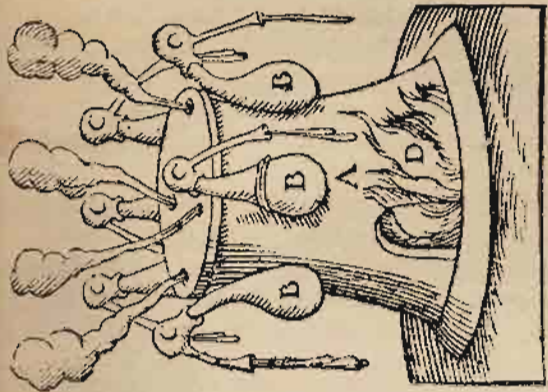
Distilling can be effected by steam or direct fire heat, by taking the precaution in the latter case to place an interior grating in the copper so as to hinder the substances from sticking to the bottom.

The aqueous vapours mixed with those of the essences become condensed in the worm, and the produce of these condensations is gathered in a special vase, known as a Florentine receiver, where the oil becomes separated from the distilled water,



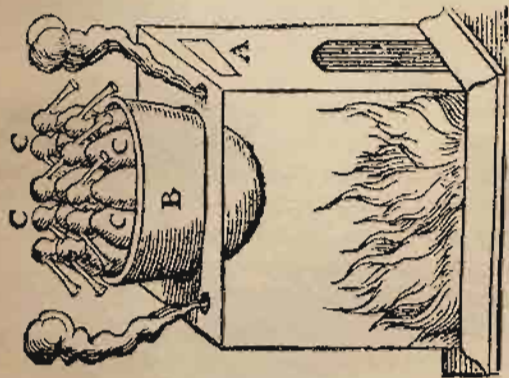
STILLS AT THE WORKS OF THE LONDON ESSENCE CO.

## Distilling



FURNACE WITH STILLS.

(From Peter Morseyng's "Treatise of Enomyms,"  
1559.)



BALNEUM MARIÆ.

(From Peter Morseyng's "Treatise of  
Enomyms," 1559.)

## The Still-Room

by reason of the different densities of the two bodies. According to the nature of the essence, whether lighter or heavier than water, this recipient is supplied either in its upper or lower part with a side spout, by which the overflow of the water passes and leaves the essence to accumulate in the vase in measure as it is produced.

Distilling is continued until the water runs out at the outlet of the worm in a limpid state. By this sign it is known that the distillation is no longer supplying any essential oil to the recipient, as it is precisely the presence of a certain quantity of oil in the water which up to this moment gave it a milky appearance.

*Cordials.*—In the preparation of cordials or liqueurs, scrupulous cleanliness is of the utmost consequence ; and the best of sugar, the purest of rectified spirits, the best of herbs or essences, and distilled or filtered rain-water should be used. Where possible, distillation should nearly always be employed in the preparation of liqueurs, lemon and orange liqueurs being perhaps exceptions. If, however, distillation is impracticable, prolonged maceration for a month or more should be resorted to. In this case, in adapting the recipes in this chapter, only enough water is to be employed to make up the total to the amount ordered to be distilled off. If, instead of the herbs or spices themselves, it is decided to use the prepared essences, care should be taken to obtain essences prepared from the herbs, and not mere



## Distilling

chemical imitations. Messrs. Bush, Messrs. Stafford,



FURNACE WITH STILLS.

(From Peter Morisyng's "Treasure of Enochyus," 1559.)

Allen & Co., and the London Essence Co. may be communicated with. The syrup is always added

## The Still-Room

to the distillate last of all, and should have been carefully filtered through a clean filter-bag. If care be taken, the liqueur will be clear as soon as made, or at any rate after standing for a few days. Should, however, this not be the case, the liquid may be fined with whites of eggs, allowing one egg to three gallons. In any case, the liqueur should be stored



PERSIAN ROSE-WATER SPRINKLER.

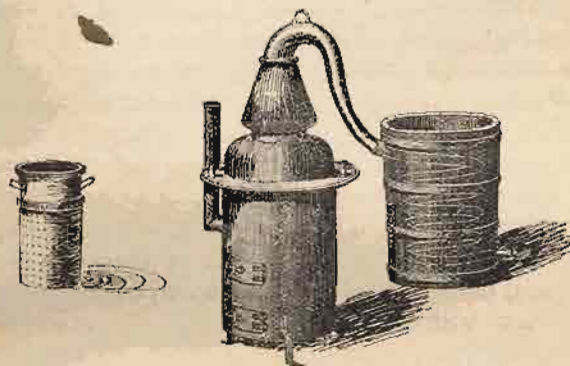
for some months—preferably for a year or more—before being used.

The following are recipes for the making of a number of cordials by distillation. Those who wish to pursue the subject further may be referred to an admirable series of articles which appeared in the *Mineral Water Trade Review* from September, 1902, to May, 1903.

*To make Absinthe.*—Digest for a week, in a closed

## Distilling

vessel, a mixture of one gallon of rectified spirit, half a gallon of water, two pounds of wormwood tops, and eight grains each of dittany leaves, aniseed, calamus root, and angelica root. Add another half-gallon of water, and distil off six quarts at a moderate heat. Add a pint of syrup containing one pound of sugar.



A PERFORATED WATER-BATH.

A PORTABLE COPPER STILL.

*To make Aniseed Cordial.*—Proceed as for clove cordial, substituting half a pound of bruised aniseed and two ounces each of fennel and coriander seeds for the cloves and allspice, and drawing off only six quarts.

*To make Benedictine.*—Digest for a week, in a closed vessel, a mixture of a gallon of rectified spirits, a gallon of water, two ounces of cardamoms, an ounce

## The Still-Room

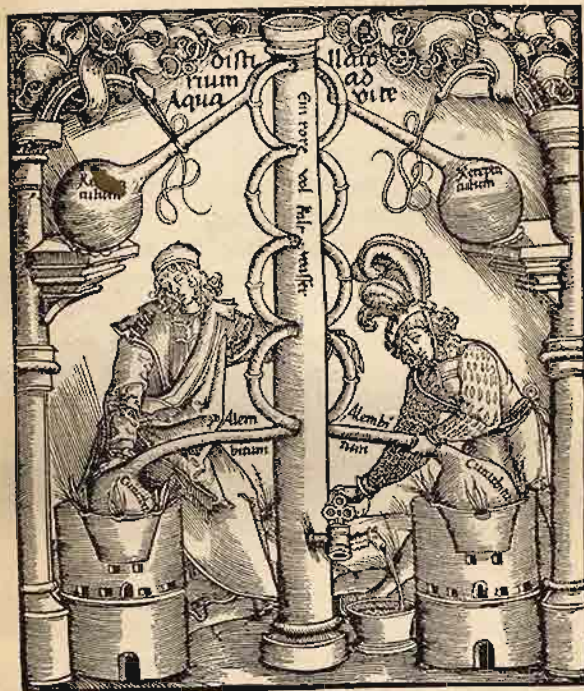
each of balm, peppermint, genepi, and angelica root, half an ounce of calamus, a dram of cinnamon, and half a dram each of cloves and nutmeg. Distil off a gallon, and add syrup (made by dissolving eight pounds of sugar in three quarts of water) and three quarts of water.

*To make Green Chartreuse.*—Digest for a week, in a closed vessel, a mixture of a gallon of rectified spirits, a gallon of water, an ounce and a half of lemon-peel, an ounce of balm, half an ounce each of dried peppermint, mountain wormwood, and dried hyssop flowers, three drams of angelica root, a dram of calamus root, half a dram each of cloves, cinnamon, and mace, and a quarter of a dram of cardamoms. Distil off one gallon, and add syrup (made by heating five pounds of sugar in two quarts of water) and a pint of water, colouring the liqueur with a spirituous infusion of spinach or parsley.

*To make Cinnamon Cordial.*—Proceed as for clove cordial, substituting half a pound of cinnamon or cassia bark for the cloves and allspice, and distilling at a somewhat lower temperature.

*To make Clove Cordial.*—Digest for a week, in a closed vessel kept moderately warm, a mixture of one gallon of rectified spirits, one gallon of water, one ounce of bruised cloves, and one dram of allspice. Place the mixture in the still, and draw off six and a half quarts at a moderate heat. Sweeten with syrup (made by heating five pounds

## Distilling



OLD APPARATUS USED FOR CONDENSING THE DISTILLATE.

(From the title-page of the second volume of Brunschwig's "Liber de Arte Distillandi," 1507.)

## The Still-Room

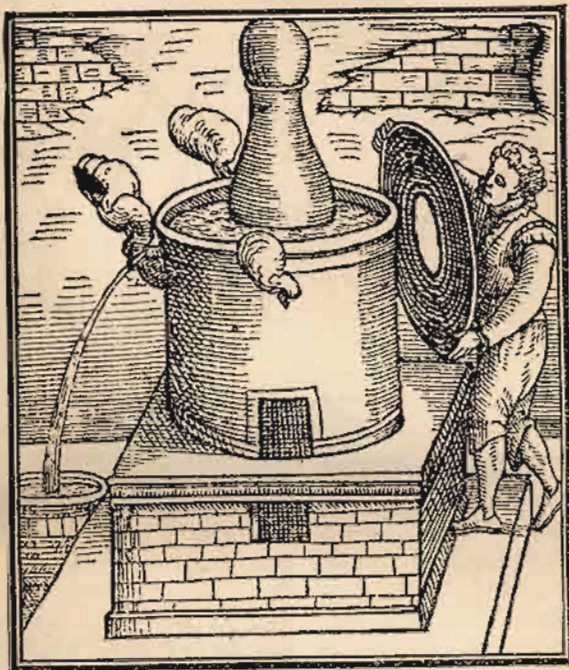
of sugar with two quarts of water, and skimming), and colour with cochineal.

*To make Hamburgh Bitters.*—Digest for a week, in a closed vessel, a mixture of a gallon of rectified spirits, a gallon of water, two ounces of cinnamon, one ounce each of wormwood, quassia, calamus root, and centaury, half an ounce each of aniseed, orris, coriander, and cloves, and a dram each of ginger, cardamoms, and mace. Distil off one gallon, and add syrup (made by heating three pounds of sugar in three pints of water) and three pints of water.

*To make Kirschenwasser.*—Digest for a week, in a closed vessel, a mixture of a gallon of rectified spirits, half a gallon of water, a pound of crushed cherry stones, half a pound of crushed apricot stones, an ounce of dried peach leaves, and two drams of myrrh. Distil off a gallon, and add three pints of spirit of noyau (made by distilling off three pints from a digested mixture of three pints of rectified spirits, a pint and half of water, and a pound of bruised apricot stones), a pint of orange-flower water, a gallon and a half of rectified spirits, syrup (made by heating thirty pounds of sugar in three gallons of water), and water to make up to eight and a half gallons.

*To make Kummel.*—Digest for a week, in a closed vessel, a mixture of a gallon of rectified spirits, a gallon of water, half a pound of caraway-seeds, three drams of orris root, and an ounce of fennel seeds.

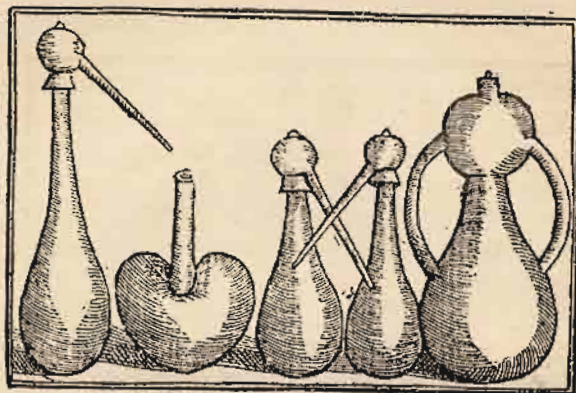
## Distilling



“Beholde here a manner or fashion of Balneo Mariae, verye excellent, of which the vessell large and greate is of tynne; the bottome or bellye of the same standing wythin the boyling water. On thys great vessell is Lymbeck of Tynne, covered and compassed of another vessell like of Tynne farre larger.”

(From Baker's "The Newwe Jewell of Health," 1576.)

## The Still-Room



OLD VESSELS USED IN DISTILLING.

(From Baker's "Jewell of Health," 1576.)



TENDING THE FURNACE.

(From Baker's "Jewell of Health,"  
1576.)



BALNEUM MARIÆ.

(From Baker's "Jewell of Health,"  
1576.)

Distil off one gallon, and add syrup (made by heating seven and a half pounds of sugar in three quarts of water) and a quart of water.

## Distilling

*To make Lemon Cordial.*—Proceed as for cinnamon cordial, substituting three-quarters of a pound of dried lemon-peel for the cinnamon.

*To make Noyau.*—Digest for a week, in a closed vessel, a mixture of a gallon of rectified spirits, a gallon of water, two pounds of crushed apricot or peach stones, and one pound of crushed plum or prune stones. Distil off five quarts, and add a gallon of syrup containing eight pounds of sugar and a gallon of water.

*To make Orange Cordial.*—Proceed as for cinnamon cordial, substituting three-quarters of a pound of the yellow part of fresh orange-peel for the cinnamon.