ing the ether from the spirit by evaporation, the operation will be greatly facilitated by heating the spirit to a point below the boiling point for one hour; and if the odor has undergone no perceptible change, allowing a small per centage for evaporation of the natural bouquet of the raisin spirit, which, it must be recollected, is not of that volatile nature that the ethers are.

Raisin spirit has its perfume varied by the addition of various perfumes. Thus, for instance, in the imitations of the fancy brands of the American bottled whiskey, the essence of wintergreen, or essence of pear oil, is added to the raisin spirit in such quantities that will change the general tone of the original odor to that required.

TINCTURE OF BALSAM OF PERU AND OF TOLU.

Digest one ounce of the balsam with eight of rectified spirit, for some days, shaking it occasionally. Then filter. Tincture of benzoin in the same manner.

TINCTURE OF MUSK.

Musk two drachms, rectified spirit twelve ounces.
FLAVORING WINES, LIQUORS, AND COR DiALS.

ESSENCE OF VANILLA.

Vanilla, cut very small, two ounces; rectified spirit one pint. Infuse for three days.

ESSENCE OF VERBENA.

Essential oil of verbena two drachms, rectified spirit four ounces, essence of ambergris one-half drachm. Mix.

ESSENCE OF NEROLIA.

Spirit of wine one-half pint, oil of orange peel one drachm, orris root, in powder, two drachms; musk, two grains. Let it stand in a warm place three days, and strain.

FLAVORING ESSENCE.

Oil of bitter almonds eight drops, oil of lemon five drops, oil of cinnamon four drops, oil of nutmegs eight drops, high proof spirit one pint. One to two drops added to each bottle, in bottling cordials that have little or no perfume.

ESSENCE OF BITTER ALMONDS.

Oil of bitter almonds one ounce, spirits one-pint.
SPIRIT OF ROSES.

One pint of clean spirit, otto of roses twenty drops.

ESPRIT DE BOUQUET.

Oil of lavender, oil of cloves, and of bergamot, of each two drachms; otto of roses ten drops, oil of cinnamon five drops, essence of musk one drachm, clean spirit one pint, for wines.

EAU DE MILLEFLEURS.

Rectified spirit two pints, balsam of Peru one quarter of an ounce, essence of bergamot one-half ounce, oil of cloves one quarter of an ounce, essence of nerolia one-half drachm, essence of musk one drachm. Mix the above. Is used for brandies and cordials.

ESSENCES FROM THE ESSENTIAL OILS.

All essences are prepared from the oil. For example, half an ounce of the oil to one pint of clean spirit will form a pint of strong essence. Take of any of the following oils:—Oil of cedar almonds, anise, bergamot, bitter almonds, caraway,
cassia, cinnamon, cloves, horsemint, jessamine, juniper, lavender, lemons, mace, marjoram, mustard, nutmeg, origanum, peppermint, pimento, rosemary, roses, sassafras, spearmint, sweet marjoram, thyme. These, it will be observed, either singly or combined, form the base of all our perfumes.

**ORRIS ROOT.**

As the manufacturer makes use of this root extensively, a description of it will not be out of place, the better to enable the consumer to become a judge of it. This plant is a native of Italy, and other parts of the south of Europe. The root is dug up in the spring, and prepared for market by the removal of its cuticle and fibres.

It is prepared in pieces of various forms and sizes, often branched, usually about as thick as the thumb, knotty, flattened, white, heavy, of rough, though not fibrous fracture; of a pleasant odor, resembling that of the violet, and a bitterish, acrid taste. The acrimony is greater in the recent than in the dried root, but the peculiar smell is more decidedly developed in the latter. The pieces are brittle and easily powdered, and the powder is of a dirty white color.

One gallon of clean spirit (proof), and eight ounces of orris root bruised. Digest for ten days,
and strain. This is suited for fine brandies, all of the imitation wines, and enters into the composition of cordials, in some instances, singly; or combined, for instance, in the brandies. It is combined with acetic ether in fine gin, with juniper essence. In the wines in different proportions, as will be seen in the Formulas.

ESSENTIAL OILS, &C., USED FOR FLAVORING.

Oil of bitter almonds is used for flavoring, in imitation of peach blossom, by the addition of orange flower water, in the imitation of peach brandy, and also for the imitation of syrups and cordials of fruits. Essence of bitter almonds has a tendency to destroy the flavoring ingredient of almost any article combined with it; the destruction is not immediate, but gradual. This essence is sometimes added to brandy, whiskey, &c., to give a nutty flavor to them. The oil of bitter almonds has become quite common from long use, and is easily detected; and therefore should be used with the greatest caution. A few drops will suffice for forty gallons. The essence is made by dissolving one ounce to four ounces of alcohol.
FLAVORING WINES, LIQUORS, AND CORDIALS.

AMBERGRIS.

Ambergris differs somewhat from the generality of aromatics, as it combines its odor with any other and forms by each addition a new and desirable perfume. It is used for flavoring the light wines, and it will be seen enters into various other formulas throughout the work.

OIL OF ANISEED

Is used principally for a cordial of the same name. The odor of anise has become too common for any other use.

OIL OF BERGAMOT (ESSENCE OF BERGAMOT).

The composition of oil of bergamot and that of lemon are nearly the same. In composition bergamot is used extensively for all kinds of cordials, and combined with acetic ether it is used for flavoring domestic brandies, and with nitric ether for Holland gin. It is never used alone for flavoring.

OIL OF CINNAMON

And oil of cassia are the same. This odor has become too popular with the masses to be of any
AROMATICS.

value to the manufacturer. Cinnamon is the flavoring ingredient in some aromatic cordials; when it is used it should be concealed to as great an extent as possible. Cinnamon is highly useful where a warm aromatic odor is required.

AROMATICS

Are used for giving a false strength, an aromatic pungency, and in some instances an appearance of age, and a nutty flavor to liquors, wines, and cordials.

Of the two classes of aromatics, solids and fluids, the former is used for both its taste and odor; and the latter is employed for its odor alone.

Care should be exercised in the use of aromatics, that they are not added in such excessive quantities that would indicate their own presence.

The most convenient mode of obtaining the active principles of solid aromatics, is by infusion; for instance, a recipe directs to a given quantity of spirit, a corresponding amount of aromatics to be infused in the spirit, and then strain. To obviate the necessity of straining a large quantity of fluid, the infusion should be prepared with a much smaller quantity of fluid. From one to three gallons will form an infusion of aromatics, sufficiently strong for one hundred gallons of spirit.
70 FLAVORING WINES, LIQUORS, AND CORDIALS.

To protect the consumer from imposition, particular attention has been paid to a description of those articles most liable to be found impure or adulterated.

ANISE.

The seed are brought from Spain, Germany, and France. The Spanish are smaller than either, and are usually preferred. The seed appear of a light greenish brown colour, with a shade of yellow; their odor is increased by friction, and is too well known to need a description; their taste is warm, sweet, and aromatic; the oil is obtained by distillation. The seeds are sometimes adulterated with small fragments of argillaceous earth, which resembles them in color; the aromatic qualities are sometimes driven off by a slight fermentation, which they are apt to undergo in the mass when collected before maturity. The star aniseed is analogous in sensible properties to the common aniseed.

Aniseed are used in the distillation of cordials, etc., and some manufacturers prepare an infusion from the star aniseed; for flavoring brandies, acetic ether or spirit of prunes are used with it; the oil is used for preparing anisette, and should be first dissolved in alcohol. For quantity, etc., see Cordials.
ANGELICA.

Of this root there are two varieties. That known as garden angelica is preferable; it should be bought in powder, in well-stoppered bottles. The dried root is greyish brown, and much wrinkled externally, whitish and spongy within. The smell is strong and fragrant, and the taste at first sweetish, afterwards warm, aromatic, bitterish, and somewhat musky. This root is for cordials. See Formulas.

CALAMUS,

Or sweet flag. This is an indigenous plant, growing abundantly throughout the United States, in low, wet, swampy places. By the process of drying, the root loses nearly one half of its diameter, but is improved in odor and taste. The active principles are taken up both by spirit and boiling water. Calamus enters into the composition of the different varieties of bitters and cordials.

CARAWAY.

The caraway plant is a native of Europe, growing wild in meadows and pastures. It has been introduced into this country. Our supplies come partly
from Europe and partly from our own gardens. Caraway seeds are about two lines in length, slightly curved, with five longitudinal ridges which are of a light yellowish color, while the intervening spaces are dark brown. They have a pleasant, aromatic smell, and a sweetish, warm, spicy taste. These properties depend on an essential oil which they afford largely by distillation. The seed yield their virtue to alcohol, and but slowly to water. See Formulas.

**CARDAMOM.**

This valuable plant is a native of the mountains of Malabar, where it grows spontaneously. The odor of cardamom is fragrant, the taste warm, slightly pungent, and highly aromatic. These properties are extracted by water and alcohol, but more readily by the latter. The volatile oil is colorless, of an agreeable and very penetrating odor. It cannot be kept long.

**CINNAMON.**

There are several botanical varieties of cassia. Ceylon cinnamon is in long cylindrical fasciculi, composed of numerous quills, the larger inclosing the smaller. In the original sticks, which are somewhat
more than three feet in length, two or three fasciculi are neatly joined at the end so as to appear as if the whole were one continuous piece. The finest is of a light brownish yellow color, almost as thin as paper.

The inferior sorts are browner, thicker, less splintery, and of a less agreeable flavor. The Chinese cinnamon, called cassia in commercial language, is usually in single tubes of various sizes, from an eighth of an inch to half an inch, and even an inch in diameter, and is the variety commonly found in the shops. Cinnamon from which the oil has been distilled is sometimes fraudulently mingled with the genuine. This bark may be known by its greater thickness and deficient taste. This aromatic yields its virtues wholly to alcohol, and less readily to water.

CREASOTE.

A peculiar substance, obtained from tar or from crude pyroligneous acid by distillation. Creasote when pure, is a colorless liquid, of the consistency of oil of almonds, slightly greasy to the touch, and having a caustic, burning taste, and a penetrating, disagreeable odor, like that of smoked meat. Creasote is sometimes adulterated with the fixed
and volatile oils. These substances are detected by strong acetic acid, which dissolves the creasote, and leaves them behind, floating above the creasote solution. Creasote is used in flavoring plain spirit, in imitation of Irish and Scotch whiskey, and also for some of the American brands.

**CUBEBs.**

The odor of this berry is agreeably aromatic. The taste warm, bitterish, and camphorous, leaving in the mouth a peculiar sensation of coolness, like that produced by the oil of peppermint. The powder is of a dark color and of an oily aspect; powdered cubebbs become impaired by age, in consequence of the escape of their volatile oil. The powder is sometimes adulterated with pimento. Powdered cubebbs form an ingredient in the French medicated gin bitters, and also the gin bitters. An infusion is prepared from powdered cubebbs and proof gin. See chapter on Bitters. Cubebbs are gentle, stimulant, excite the digestive organs, with special direction to the urinary organs.

**SLIPPERY ELM BARK.**

The inner bark is the part made use of, and is found in commerce in long, nearly flat pieces, from
one to two lines in thickness, of a fibrous texture, a
tawny color, which is reddish on the inner surface,
a peculiar sweetish, not unpleasant odor, and a
highly mucilaginous taste when chewed. It abounds
in mucilaginous matter, which it readily imparts to
water. This mucilage is precipitated by the solu-
tions of lead, but not by alcohol.

Much of the bark recently brought into the market
is of an inferior quality, imparting comparatively
little mucilage to water. It has the characteristic
odor of the genuine bark, but is much less fibrous and
more brittle, breaking abruptly when bent, instead
of being capable, like the better kind, of being
folded lengthwise without breaking.

The mucilage of Slippery Elm Bark is used by
some for giving the appearance of age to liquors, and
also an oily mucilaginous quality, in the proportion
of three or four ounces to eight gallons; and if added
in excess, the mucilage will be observed floating
through the liquid in the form of small flaky parti-
cles, which will have to be removed by straining.
Considering that this mucilage is tasteless and has
but little body or substance, its effects should not be
relied upon in the manufacture of liquors, when
honey, sugar, &c., can be obtained.
GINGER

Is too well known to need a description. Those pieces of ginger which are very fibrous, light, and friable, or worm-eaten, should be rejected. Ginger is used in the manufacture of cordials and syrups.

HOPS

Consist of numerous thin-veined, leaf-like scales which are of a pale greenish yellow color, and contain near the base, two small, round black seeds.

Though brittle when quite dry, they are pulverised with great difficulty; their odor is strong, peculiar, and fragrant; their taste very bitter, aromatic, and slightly astringent. These qualities are imparted to water. Hops are extensively used, by some manufacturers, in the place of catechu, or for furnishing the bitter principle of fine brandies, rum, &c.

JUNIPER.

The berries, as the fruit is sometimes called, are sometimes collected in this country; but though equal to the European in appearance, they are inferior in strength, and are not much used. The best comes from Europe, particularly from Trieste and the Italian
ports. They are globular, more or less shrivelled, about as large as a pea, covered with a glaucous bloom, beneath which they are of a shining, blackish purple color, and containing a brownish yellow pulp and three angular seeds. The berries impart their substance to water and alcohol—and are used in the preparation of gin.

MACE OR NUTMEGS.

The small and round nutmegs are preferred to those which are large and oval. They should be rejected when very light, with a feeble taste and smell, worm-eaten, musty, or marked with black veins, or feel light, deficient in weight.

An artificial oil of mace is sometimes substituted for the genuine. It is made by mixing together various fatty matters, such as suet, castor oil, spermaceti, wax, tallow, &c., adding some coloring substance, and flavoring the mass with the volatile oil of nutmeg. The various formulas throughout this work, will show the great utility nutmegs are to the manufacturer.

Orange Peel.—A tincture is prepared from this peel, with clean spirit, that possesses all the substance of the oil. For convenience a small bag, containing the peel, is suspended in those liquors where this
odor would be desirable. This peel also enters into the composition of the various formulas for bitters.

When the object in the use of the orange peel is simply to obtain its agreeable flavor, the rind of the sweet orange is preferable, and for a bitter principle, that of the Seville orange.

ORANGE FLOWER WATER.

Orange flower water is commonly prepared in France and Italy. It is nearly colorless, though usually of a pale yellowish tint, in consequence of being kept in copper bottles.

Much color, an offensive odor, or mouldiness, would indicate impurity, derived from the flowers in the process of distillation.

An oil is obtained from the flowers by distillation, which is called Nerolia, in France, and enters into the composition of various liquors and cordials.

Orange berries are sometimes used for flavoring cordials. See Formulas.

The rind of the Seville orange is much more bitter than that of the other varieties.

The essential oil is imported into the United States in tinned or copper cans. It has properties resembling those of the oil of lemons, but spoils more rapidly on exposure to the air, acquiring a turpentineish
VANILLA.

odor. This oil is employed as a flavoring material in all classes of liquors. See Formulas.

ORRIS ROOT.

This root is only used for its odor in this business. The root should be bruised or ground, and the spirit used to obtain the odor, should be free from grain oil; from two to four ounces to a quart of spirit. This odor enters into the composition of various perfumes for brandy, acetic ether, and spirit of orris, and for cordials, &c. See Formulas.

QUASSIA.

This wood is inodorous, and has a pure bitter taste, which is surpassed by that of few other substances in intensity; it imparts its bitterness, with a yellow color, to water or alcohol.

Quassia is sometimes used in the place of catechu to impart a bitterness without astringency to liquors, but is used more extensively in the manufacture of bitters. See Bitters.

VANILLA

Is a climbing plant, growing in the West Indies, Mexico, and South America. The pods are collected
before they are quite ripe, dried in the shade, and covered with a coat of drying oil, and then tied in bundles which are surrounded with sheet-lead or included in small metallic boxes and sent to market. Several varieties of vanilla exist in commerce. The most valuable consists of cylindrical, somewhat flattened pods, six or eight inches long, three or four lines thick, nearly straight, narrowing towards the extremities, but at the base shining and dark brown, externally wrinkled, longitudinally soft and flexible, and containing within their tough shell a soft black pulp, in which numerous minute black glossy seeds are embedded. It has a peculiar, strong, agreeable odor, and a warm, aromatic, sweetish taste; the interior pulpy portion is most aromatic.

Vanilla does not yield volatile oil, but the odor is extracted by clean spirit, in the form of the tincture or essence, which is made by cutting very small two ounces of vanilla, and infusing in neutral spirit for twelve days; this is sometimes distilled, forming the spirit of vanilla. The essence is used in vanilla syrups, for flavoring chocolate, ice cream, cordials, cognac brandy, peach brandy, &c.

**BLACK MUSTARD SEED.**

Owing to the adulteration that ground mustard is liable to, the use of the seed will be found more
Liquorice Root.

Economical. Black mustard seed contain different properties to those of white mustard, and are best suited to the purposes of the manufacturer. The acrid properties of mustard are not yielded to alcohol, neither does this property pre-exist in the seed, but is dependent upon water for its development; and when the active principle is to be obtained, it should be by infusing in water, or if the spirit is low proof containing an excess of water, the mustard should be added to the spirit.

Horseradish is used for the same purposes and in the same manner as mustard, and their properties are identical.

The above articles are used for giving a pleasant, biting sensation, to cordials and wines.

Tea.

This is a native of China, and is used in the manufacture of liquors, wines, and cordials, for imparting a roughness to them, which is both agreeable and natural to the taste. A decoction of it is made by boiling. See Formulas.

Liquorice Root.

The acrimony perceptible to the taste in this root, renders it unfit for any of the purposes of the manuf...
facturer, other than in the manufacture of sarsaparilla syrup that is used in soda water, which may be given thus: liquorice root, bruised, two ounces; oil of sassafras, oil of anise, 8 drops; oil of wintergreen, 5 drops; 6 lbs. brown sugar; water, 3 quarts. Boil the liquorice two hours, then mix the sugar, water, and liquorice water, and boil as for other syrups, then work the oils in the syrup when cool.
IV.
MANUFACTURE OF DOMESTIC LIQUORS

BY CONCEALING

THE ODOR OF THE GRAIN OIL.

ON THE MANUFACTURE OF DOMESTIC LIQUORS FROM RECTIFIED WHISKEY, BY CONCEALING THE SMELL OF THE GRAIN OIL BY THE USE OF AROMATICS.

When ethers are used, the barrels should be closely bunged, as the ether will soon escape by evaporation if exposed.

The perfume of the essential oils are more lasting than those of the ethers. The objection to the essential oils is, that their odors are too common, and will detect themselves. These remarks apply more particularly to the oils of cinnamon, cloves, aniseed, and peppermint.

The perfumes best suited to this purpose, are acetic and nitric ether, oil of wintergreen, oil of lemon, essence of ambergris, oil of mace and creasote. The ethers are usually found in two to five pound pack.
ages, and the manufacturers' prices vary from fifteen cents to thirty cents a pound, but when found at the druggists, they are usually sold for an advance of one hundred per cent.; this is partly owing to the cupidity of dealers, and the expenses incident to the transportation of the article.

Ethers are sometimes largely adulterated with various articles. When pure, ether evaporates from the hand without leaving any disagreeable odor, and evaporates from paper without leaving any stain of grease, color, &c., &c.

The consumer should, to prevent imposition, become familiar with the nature and composition of ethers. See Ethers.

The essential oils are usually dissolved in alcohol or rubbed up well with dry sugar, and added, to prevent detection of the oils by their odors; they should never be added singly or uncombined, owing to the similarity existing between the odor of pure brandy and acetic ether. The detection of the latter would be difficult, and the same remarks will apply to nitric ether and gin; and thus it will be seen, that neither nitric nor acetic ethers require combinations of other perfumes to prevent detection. In the absence of acetic, nitric ether can be substituted by the addition of any sweet-scented aromatic.

To give these liquors the appearance of age and a
COGNAC BRANDY.

body, add to every forty gallons, from half to two thirds of a pint of the decoction of slippery elm bark, which is made by boiling one pound of the bark with one and a half gallons of water for two hours. By the addition of an excessive quantity of this mucilage of elm bark, it will be observed floating throughout the mass of spirit, in the form of small flakes. The removal of these flakes is effected by passing the liquor through a straining bag.

The articles used for giving strength to these liquors, are grains of paradise, pellitory, sweet spirits nitre, and a strong decoction of samqua tea.

The nitre is the most dangerous to animal life, and should not be used. The other three enumerated articles are extremely healthy, and not in the slightest degree are they injurious.

These liquors will be greatly improved if the same quantity of refined sugar or honey is added to them, that is prescribed in the Formulas for the finer liquors.

COGNAC BRANDY.

One barrel of whiskey, say forty gallons, add tincture of grains of paradise, one quart; powdered catechu, three ounces; mucilage of slippery elm bark, two thirds of a pint; oil of lemon, eighty drops; well rubbed in an ounce of dry white or brown sugar,
and added to the liquor; then add six ounces of acetic ether. If this brandy is desired of a very deep color, it can be rendered so by the addition of a pint of the tincture of cochineal or sanders wood, and the same of burned sugar. For full particulars on Coloring, look under that head.

NEW YORK BRANDY.

Common rectified whiskey, forty gallons; water, six gallons; tincture of the grain of paradise, three quarts; decoction of strong tea, two quarts. Color with a quart of tincture of beet root, and one pint burnt sugar, then add nitric ether, five ounces, with fifteen drops of oil of wintergreen, dissolved in the ether.

The use of fine or delicate aromatics, such as oil of wine, orris root, &c., would be lost if added to a spirit containing fusil or grain oil.

OLD PEACH BRANDY.

Common rectified whiskey, forty gallons; tincture of grains paradise, three pints; powdered catechu, four ounces; mucilage of slippery elm, two thirds of a pint; take half a pound of hulled peach kernels or bitter almonds, and beat them to a powder, and allow them to infuse in a gallon of the whiskey for nine
CHERRY BRANDY.

days, and then add sulphuric ether, one ounce; acetic ether, three ounces; oil of lemon, fifty drops; dissolve in the ether, one grain of ambergris well rubbed up in sugar, and the whole well mixed and colored as for other brandies. But the new mode consists of coloring this brandy yellow, with a half ounce, or more if the color is desired of a deeper yellow, with gamboge. If the whiskey used for this purpose, should be bright or clear of coloring, the brandy will be of a fine yellow color, but if the whiskey should be colored, as it usually is, the tincture of red sanders wood and burnt sugar should be added to bring the spirit to the usual color of the common brandies, allowing the red color to predominate.

APPLE BRANDY.

Common rectified whiskey, forty gallons; tincture of strong tea, half a gallon; sulphuric acid, one and a half ounces; acetic ether, five ounces, and ninety drops oil of wintergreen dissolved in ether. Color to a light brown with burnt sugar.

CHERRY BRANDY.

Rectified whiskey, twenty gallons; tincture of grains of paradise, one gallon; powdered catechu, six ounces; water, sixteen gallons; refined sugar.
from forty to eighty pounds; sulphuric acid, four ounces. Oil of bitter almonds, one drachm; oil of lemon, half ounce; twenty drops oil of cinnamon—these oils are to be dissolved in four ounces of alcohol, and added. The sugar is to be dissolved in sixteen gallons of water. This is to be colored with one ounce of cochineal, to digest in a gallon of warm water for a few days, or until the coloring is completely extracted; then add two ounces of powdered alum, and then strain the infusion, and add it to the brandy. If this brandy was made with two and a half to three pounds of sugar per gallon, it will make a superior article of brandy, or if honey be substituted for sugar, in the same proportions.

BOURBON WHISKEY.

Rectified whiskey, thirty gallons; tincture of grains of paradise, one gallon; water, 9 gallons; mucilage of slippery elm bark, one half pint; acetic ether, three ounces; oil of wintergreen, fifteen drops dissolved in the ether. This whiskey has the color usual to all rectified whiskeys.

ROANOKE RYE WHISKEY.

Rectified whiskey, thirty gallons; water, nine
gallons; decoction of strong tea, one gallon; grains of paradise tincture, half gallon; ten drops each of the oils of wintergreen and lemon, are to be dissolved in three ounces of alcohol, and added. The whiskey used in base of this formula will contain sufficient coloring for the entire mass.

MONONGAHELA.

Rectified whiskey, thirty gallons; grains of paradise tincture one and a half gallons; catechu, five ounces; water, nine gallons; sulphuric acid, one ounce; oil of lemon, one drachm, dissolved in four ounces of acetic ether; rub up half a grain of ambergris in an ounce of sugar, and mix the whole. This whiskey should have a slight tinge of red in it from sanders wood. Supposing the spirit to be perfectly transparent, half a pint each of tincture of red sanders and burnt sugar would answer for coloring.

TUSCALOOSA WHISKEY.

Rectified whiskey, thirty-nine gallons; tincture of grains of paradise, a half gallon; powdered catechu three ounces; fifteen drops of oil of wintergreen dissolved in four ounces of nitric ether. This whiskey should be of a very pale color.
OLD RYE WHISKEY.

Rectified whiskey, thirty-two gallons; tincture of grains of paradise, three quarts; decoction of strong tea, two quarts; water, seven quarts; make a pint of common wheat flour into a smooth paste with water, add this to the barrel; then add ten drops oil of wintergreen, dissolved in two ounces of alcohol. This whiskey should have but a slight color, partaking of a reddish derived from sanders wood.

The most convenient mode of preparing the tincture of sanders wood is to infuse the wood in a pulverised state in clear whiskey; if the tincture should appear heavy or cloudy, it will have to be filtered through sand; but if the sanders wood contains no impurities, and the spirit that is used for digesting it is bright and clean, the cloudiness alluded to will be prevented. The burnt sugar should be strained before using.

SCOTCH WHISKEY.

Rectified whiskey, thirty-nine gallons; tincture of grains of paradise, half gallon; powdered catechu, three ounces. Color with burnt sugar, and add thirty drops creasote.
IRISH WHISKEY.

IRISH WHISKEY.

Rectified whiskey, thirty-nine gallons; tincture of grains of paradise, three pints; powdered catechu, three ounces; tincture of pellitory, two ounces; creasote, thirty drops. Color with burnt sugar as for common whiskey. These two last named liquors should be put up in the same packages that the genuine was imported in.

This mode of making liquors, viz. by concealing the grain oil, is at best but a poor one; for the sale of them is dependent entirely on the ignorance and simplicity of the purchaser, yet this class of liquors are sold at the auctions, and probably are as remunerative as the more expensively prepared liquors.

Liquors prepared with the view of being sold at an auction, should possess at least three qualifications, viz. a fine transparent color, and a good body and bead; the first can be given by proper attention to the coloring materials used, for extracting the coloring matter from the substance with a fluid that is of itself perfectly transparent, and then if it should appear cloudy or muddy, it should be strained through flannel or filtered through sand. Manufacturers experience more difficulty with the brandy coloring, or burnt sugar, as it is usually found in commerce, than they do with any other coloring.
CONCEALING ODOR OF GRAIN OIL.

material. The spirit colored with it, presents to the naked eye, minute particles of impurities which give to the spirit a dull, heavy, cloudy appearance. These impurities will have to be removed by passing the coloring through the sand filterer. To obviate these difficulties, the manufacturer should prepare the coloring either from refined or fair brown sugar; the coloring, if made from refined sugar, is usually prepared for coloring bottled liquors.

The chapter on Starch Filtration, offers an economical mode for giving both a body and bead to all kinds of liquors, and more particularly to low proof liquors. This body more than compensates for the deficiency of strength that may be apparent, but in contemplating the mild and pleasant taste of the spirit, the deficiency of strength is lost sight of.

HOLLAND GIN.

Uncolored whiskey, thirty-five gallons; tincture of grains paradise, three quarts; nitric ether, four ounces; oil of juniper, one drachm. Dissolve the oil in the ether, and mix.

NEW YORK GIN.

Clear, bright whiskey, thirty gallons; clear bright tincture of the grains of paradise, one gallon; water,