

The general receipt book; or Oracle of knowledge : containing nearly one thousand useful receipts and experiments, in every branch of science including: medicine, chemistry, mechanics, cookery, dying, painting, colouring, pickling, preserving. With directions for making British wines. The whole so clearly explained as to be within the reach of the most limited capacity. Compiled and extracted from valuable private manuscripts, public documents, and expensive works of the most eminent practitioners / by W.P. Chubb.

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THE GENERAL
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OR,

ORACLE OF KNOWLEDGE;

Containing nearly

One Thousand Useful Receipts

AND

EXPERIMENTS,

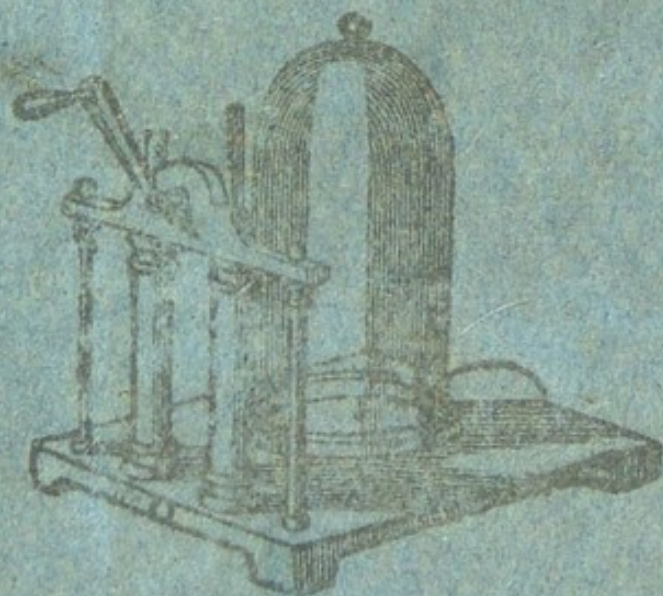
IN EVERY BRANCH OF SCIENCE.

INCLUDING

MEDICINE
CHEMISTRY
MECHANICS

COOKERY
DYEING
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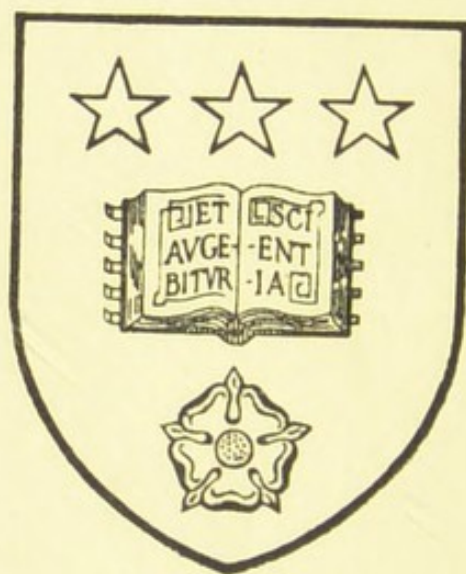
LONDON:

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1825.

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SIR ASTLEY COOPER BART.

*Drawn and Engraved expressly for the
General Receipt Book.*

Published by W.P. Chubb, 63 Long Lane, London.

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*The whole so clearly explained as to be within the reach of the most
limited capacity.*

COMPILED AND EXTRACTED FROM VALUABLE PRIVATE MANUSCRIPTS,
PUBLIC DOCUMENTS; AND EXPENSIVE WORKS OF THE
MOST EMINENT PRACTITIONERS.

By W. P. CHUBB, CHEMIST.

LONDON:
J. SMITH, 33, BROAD STREET, BLOOMSBURY.

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RECEIPT BOOK
OF
GRACE OF KNOWLEDGE
Containing
One Thousand Useful Receipts
AND
EXPERIMENTS

IN FIVE PARTS OF RECIPE
FOR
CULINARY ARTS
MEDICINE
PHYSICS
AGRICULTURE
AND
MANUFACTURES

THE SECOND EDITION
REVISED AND ENLARGED
BY
J. SMITH, ESQ.
OF
LEEDS

BY W. E. CHURCH, CHURCH



PREFACE,



As it appears to be a universal custom, to commence every work with a kind of introductory chapter; not that it is considered in the least useful or interesting, but a kind of ornamental embellishment, that cannot well be dispensed with. Therefore we follow the beaten tract as our Work would appear singular without it. Brevity being our maxim, we shall not spin our story into a lengthened address.

Suffice it to say, that no trouble or expence has been spared, to combine in the present volume, the really useful information of every author in their various departments of science. Utility has been the principal object considered, and it must be acknowledged on the perusal of its pages, that the compiler has not failed in his undertaking.

THE
GENERAL
RECEIPT BOOK.

1. *Water gilding upon silver.*—Take copper flakes, on which pour strong vinegar; add alum and salt in equal quantities; set them on a fire, and when the vinegar is boiled, till it becomes one-fourth part of its original quantity, throw into it the metal you intend to gild, and it will assume a copper colour. Continue boiling it, and it will change to a fine gold colour.

2. *Invisible ink.*—Put litharge of lead into very strong vinegar, and let it stand twenty-four hours, strain it off and let it be till settled, then put the liquor in a bottle.

You next dissolve orpiment in quick lime water, by setting the water in the sun, for two or three days, turning it five or six times a day. Keep the bottle containing this liquor well corked, as the vapour is highly pernicious if received into the mouth.

Write what you wish with a pen dipped in the first liquid, and to make it visible, expose it to the vapour of the second liquor.

If you wish them to disappear again, draw a sponge or pencil dipped in aqua-fortis over the paper, and if you wish them to re-appear, let the paper be quite dry, then pass the solution of orpiment over it.

3. *Another*.—Dissolve besmuth in nitros acid, when the writing with the fluid is exposed to the vapour of liver of sulphur it will become quite black.

4. *Another*.—Dissolve green vitriol and a little nitric acid in common water, write with a new pen, next infuse Aleppo galls slightly bruised in water. In two or three days pour the liquor off.

By drawing a camel's hair pencil dipped in the second solution over the characters written with the first, they will appear a beautiful black.

5. *Invisible gold ink*.—Put as much gold in as small a quantity of nitros acid as will dissolve, when dissolved, dilute it with two or three times the quantity of distilled water.

Next dissolve in a separate vessel fine pewter in nitros acid, and when well impregnated, add an equal quantity of distilled water.

Write your characters with the first solution, let it dry in the shade. To make them appear, draw a hair pencil or sponge dipped in the second solution over the paper, and the characters will appear of a gold colour.

6. *Invisible ink*.—Mix alum with lemon juice, the letters written with this ink is invisible till dipped in water.

7. *Never yielding cement*.—Calcined oyster shells, pound and sift them through a sieve, and grind them on a flat smooth stone with a muller, till they are reduced to the finest powder, then take the whites of several eggs, according to the quantity of powder, form the whole into a paste. With it join the pieces of china or glass, and press them together for six or eight minutes. This cement will stand both heat and water, and will never give way, even if the article should fall to the ground.

8. *To make phosphorus match bottles*.—Nothing more is necessary for this purpose than to drop small pieces of phosphorus into a common phial, heat it till it melts, and then turn the bottle round that it may adhere to the sides. The phial should be closely corked, and when used a

common brimstone match is to be introduced and rubbed against the side of the phial, take it out instantly, cork the bottle, and if the match does not ignite instantly, rub it briskly on a smooth bit of cork.

N. B. The phial which should be used ought to be shallow, such a one as is generally used for holding hair oil is well adapted for the purpose. A tin case should be made that will hold the bottle, and a small piece of cork, with a vacancy for the matches.

9. *Fulminating silver*.—Put into a small necked bottle, resting on a little sand, one part of fine silver filings, and three parts of aquaregious (nitre-muriatic acid.) When the silver is dissolved, pour the solution into a glass, add five times the quantity of water, then take spirit of sal ammoniac and pour it into the solution drop by drop, until the silver is entirely precipitated to the bottom of the glass, decant the liquor that swims at the top, and having washed it several times in warm water, dry it, and place it on paper capable of absorbing the moisture.

If a grain of this powder, put into a spoon (it should be an iron one) be exposed to the flame of a candle, it will explode with a loud report.—The crackers are made with this powder, a small quantity placed in a bit of paper with a pea and a bit of sand twisted up.

10 *The art of bronzing*.—Bronzing is that process by which figures of plaster of Paris, wood, &c. are made to have the appearance of copper or brass. It is as follows:

Dissolve copper filings in aqua-fortis, when the copper has impregnated the acid, pour off the solution, and put into it some pieces of iron filings. The effect of this will be to sink the powder to the bottom of the acid. Pour off the liquor, and wash the powder in successive quantities of fresh water. When the powder is dry, it is to be rubbed on the figure with a soft brush or piece of leather; but observe, that previously to the application of the bronze powder, a sort of green is to be laid on the figure; and if you wish the powder to adhere stronger, mix it with gum water, lay it on like paint, or previously

trace the parts to be bronzed with gold size, and when nearly dry, rub the powder over it.

11. *Salts of lemons*.—Take equal parts of cream of tartar and citric acid, powdered very fine and mix together. This forms the salts of lemons as sold at the druggists', in small oval boxes at 1s. each, printed directions for using may be had at any druggists.

12. *Tooth powder*.—Take half an ounce of powdered gum myrrh, one ounce of powdered bark, two drachms of cream of tartar, one drachm of bole armoniac, mix in a mortar.—A constant use of this powder will cause the teeth to obtain a beautiful whiteness, and preserve them from decaying, and prevent the tooth-ache. As some persons prefer using a tooth paste, in preference to a powder, the above mixture need only be made into a paste with the addition of honey.

13. *Matchless blacking*.—Take a quarter of a pound of ivory black, two ounces of the coarsest brown sugar, three pints of sour table beer, mix it well together, then throw in about a small table spoonful of sweet oil, and as much vitriolic acid, stir it well together, and in a few hours bottle it for use.

14. *Remedy for the gout*.—A noble earl informs us, that he has derived more benefit from a linament of olive oil, and the sulphuric acid, in case of gouty inflammation of the feet, than from any other application, and the gouty subjects to whom he has recommended it, speak in the highest terms of its efficacy.—A case of gout in the feet is related, wherein great relief is obtained by a large plaister of treacle, completely covering the inflamed part.

15. *Chilblain lotion*.—Take one drachm of sugar of lead, two ditto of white vitriol, reduce them to a fine powder, and add four ounces of water.—Before using this lotion, it is to be well shaken, then rubbed well on the parts affected, before a good fire with the hand. The best time for application is in the evening. It scarcely

ever fails curing the most inveterate chilblains, by once or twice using.

N. B. It is not to be used on broken chilblains.

The above lotion has been sold for a considerable time at Exeter, as a patent medicine with great success.

16. *To take rust out of steel.*—Sweet oil must be well rubbed on it, and in forty-eight hours use unslacked lime powdered very fine, rub it till the rust disappears.

17. *To take ink stains out of mahogany.*—Put a few drops of spirits of nitre in a tea spoonful of water, touch the spot with a feather dipped in the mixture, and on the ink disappearing, rub it over immediately with a rag wetted in cold water, or there will be a white mark which will not be easily effaced.

18. *To make mock Indian Ink.*—Dissolve six parts of isinglass in twice its weight of boiling water, one part of liquorice in two parts of boiling water, mix both together while warm, then incorporate by little at the time on a stone with a spatula, one part of the finest ivory black. When the mixture has been perfectly made, heat it in a water bath, till the water is evaporated, it will then form a paste: any form may be given by moulding it as usual.

19. *Chemical soap.*—Take about an ounce of Fuller's earth, crumbled into powder, moisten it with a little spirit of turpentine, then take half an ounce of salt of tartar and an ounce of the best pot-ash, and work the whole into a paste with a little soft soap.—Form it into squares, and they will be fit for use.

Directions.—Moisten the spots of grease, and with a little water, rub the soap well on it till it lathers, persevere in this for a short time, until the spot disappears, then rinse the cloth with clear water.

N. B. This soap is precisely the same as sold in the streets of London.

20. *To make beautiful transparent coloured water.*—The following liquors which are coloured, being mixed, produce colours from their own. The yellow tincture of roses

when mixed, produces a green. Blue tincture of violets, and brown spirits of sulphur, produce a crimson. Red tincture of roses, and brown spirits of hartshorn, make a blue. Blue tincture of violets, and blue solution of copper, give a violet colour. Blue tincture of cyanus and blue spirit of salammoniac coloured, make a green. Blue solution of Hungarian vitriol, and brown ley of potash, make a yellow. Blue solution of Hungarian vitriol, and red tincture of roses, make black, and blue tincture of cyanus and green solution of copper produces red.

21. *To soften horn.*—To one pound of wood ashes, add two pounds of quick lime, put them into a quart of water, let the whole boil till reduced to one third, then dip a feather in, and if on drawing it out, the plume should come off, it is a proof that it is boiled enough; when it is settled filter it off, and in the liquor thus strained, put shavings of horn. Let them soak three days, and first anointing your hands with oil, work the whole into a mass and print or mould it into any shape you please.

22. *To take a plaster of Paris cast from a person's face.*—The person must lie on his back, and his hair be tied behind, in each nostril put a conical piece of paper, open at each end to allow of breathing. The face is to be lightly oiled over, and the plaster prepared, it is to be poured over the face (taking particular care that the eyes are shut) till it is a quarter of an inch thick. In a few minutes, the plaster may be removed. Thus a mould is formed, from which a second cast is to be taken, that will furnish casts exactly like the original.

23. *To clean oil paintings.*—Oil paintings frequently become soiled with smoke or dirt, when they must be treated with great care—dissolve a small quantity of salt, in some stale urine, dip a woollen cloth in the mixture, and rub the paintings over with it, till they are clean, then wash them with a sponge and clean water, dry them gradually, and rub them over with a clean cloth.

Should the dirt be not easily moved by the above preparation, add a small quantity of soft soap, be very careful not to rub the painting too hard.

24. *Lead tree*.—To a piece of zinc fasten a wire, twisted in the form of the worm of a still, introduce it into the bottle, suspended to the cork. Let the bottle be filled with spring water, with a small quantity of sugar of lead added. In a few days the tree will begin to grow, and produce a most beautiful effect.

25. *To silver iron*.—Dissolve mercury in marine acid, and dip a piece of iron into it, or rub the solution over the iron, and it will assume a silvery appearance.

26. *To melt iron in a moment and make it run into drops*.—Heat a piece of iron thoroughly, and then apply to it a roll of sulphur, the iron will immediately run into drops. This experiment should be performed over a basin of water, in which the drops that fall down will be cooled.

27. *Soft Pomatum*.—Melt in a water bath half a pound of the best lard, take it off the fire, and add half a pint of rose water, stir it continually with a clean piece of wood or ivory, made in the form of a spatula or knife, until it is cold, then drain off the superfluous water that swims on the surface, add a few drops of the otto of roses, or any other scent you please. In order to prevent its turning rancid add a table spoonful of spirits of wine.

28. *Hard pomatum*.—Melt in a water bath a quarter of a pound of lard, quarter of a pound of mutton suet, and one ounce of white wax, take it off the fire, add a little spirits of wine, and for scent, otto of roses, or any other you choose.—Stir it continually till nearly cold, turn it into moulds, when cold take them out, and put paper round them.

As it is my intention to explain every process of making preparations in as plain a method as possible, it perhaps may be necessary to inform my readers, the simplest method of making a water bath. I do it more readily as the numerous receipts for ointment, &c. will require its use.

Get a glazed earthen pot capable of holding two quarts, take a good sized saucepan, or if it can be had a large size stew or preserve pan would be preferable—half fill it with water, and place the earthen pot (which holds the ingredients) in it, which forms at once a water bath, no-

thing more is required than placing it over the fire, and the heat of the water boiling melts whatever may be placed in the earthen pot. W. P. C.

If the pomatums are for public sale, it will be highly requisite to obtain neat labels, which may be had at a moderate price, at Mr. SHAW'S, 137, Fetter-lane.

29. *To make old gold appear like new.*—Dissolve sal ammoniac in urine, boil the chain in it, and it will have the desired effect.

30. *Gold lacquer.*—Take fine sulphur and pulverize it, then boil some stale spring water, pour it hot upon the powder and stir it well together, boil it, and pour into it an ounce of cragon's blood, after it is well boiled, take it off, and filter it through a fine cloth, pour this water into a mattass (a chemical vassel) place in the liquor what you wish to colour or lacquer and boil it, and it will be a beautiful gold colour.

31. *Another way.*—Take hepatic aloes, nitre and Roman vitriol of each equal quantities, and distill them with water in an alembic, till all the spirits are extracted, it will at last yield a yellowish water, which will tinge any sort of metal a gold colour.

32. *To clean silver plate.*—Dissolve alum in a strong ley, scum it carefully, and mix it up with soap, and wash your silver with it, using a linen rag.

33. *Receipt for a Cold.*—Take a tea-cupful of linseed, a quarter of a pound of stick liquorice sliced, and a quarter of a pound of sun raisins, put them in two quarts of soft water, and let it simmer over a slow fire, till nearly reduced to one quart, then strain it off, and add to it, while it is hot, a quarter of a pound of brown sugar candy pounded.

34. *A cure for the tooth-ache.*—An eminent apothecary, in the vicinity of this metropolis, has lately recommended, as an effectual cure for the tooth-ache, the following remedy, which he has been in the habit of using for many years, and out of the number of cases, eight tenths have succeeded, viz, to take three table spoonfuls of brandy, adding to it one dram of camphor, with thirty or forty drops of laudanum, and then dropping a little on some lint, and apply it to the tooth affected, keeping the

lint moistened for five minutes only to the tooth and gum.

35. Superior bitters.—Take half an ounce of the yolks of fresh eggs, carefully separated from the white, half an ounce of gentian root, one dram and a half of Seville orange peel, and a pint of boiling water; pour the water hot upon the above ingredients, and let them steep in it for two hours, then strain them through cap paper. and bottle it for use.

36. Ginger Wine.—Take four gallons of water and seven pounds of sugar, boil them half an hour, skimming it all the time: when the liquor is cold, squeeze in the juice of two lemons: then boil the peels, with two ounces of white ginger, in three pints of water, one hour; when cold, put it altogether into the cask, with one gill of findings, and three pounds of Malaga raisins: then close it up, let it stand two months, and then bottle it off.

N. B. A lump of unslacked lime put into your cask, will keep wine from turning sour.

37. To render boots and shoes snow and water-proof.—Dissolve a little bees wax and mutton suet in a napkin, then slightly rub it over the shoes and the stiches, which will repel the wet, and not in the least prevent the blacking from having the usual effect.

38. Cure for the Gravel.—Dissolve three drachms of prepared netron in a quart of cold soft water, and take half this quantity in the course of the day. Continue this medicine for a few days, and that painful complaint will be dislodged.—It may be taken at any hour, but is best after a meal. It is said, that the greatest martyrs to this disorder have been perfectly relieved by this simple remedy, which every person should remember, and note it in a pocket book, as few families are without some individual afflicted with gravel in a greater or less degree.

39. To produce fire by the mixture of two cold liquids.—Take half a pound of pure dry nitre, in powder, put it in a retort that is quite dry; and distilling the mixture in a moderate sand heat, it will produce a liquor like a

yellowish fume: this, when caught in a dry receiver, is *Glauber's spirits of nitre*; probably the preparation, under that name, may be obtained at the chemist's, which will of course save time and trouble.

You then put a drachm of distilled oil of cloves, turpentine, or carraways in a glass vessel; and if you add an equal quantity, or rather more, of the above spirit, though both are in themselves perfectly cold, yet in mixing them together, a great flame will arise and destroy them both, leaving only a little resinous matter at the bottom.

40. *To make a ring suspend by a thread, after the thread has been been burned.*—Soak a piece of thread in urine, or common salt and water. Tie it to a ring, not larger than a wedding ring. When you apply the flame of a candle to it, it will burn to ashes, but yet sustain the ring.

41. *To change blue to white.*—Dissolve copper filings in a phial of volatile alkali, when the phial is unstopped, the liquor will be blue; when stopped, it will be white.

42. *Iron transformed into copper.*—Dissolve blue vitriol in water, till the water is well impregnated with it; and immerse into the solution small plates of iron, or coarse iron filings. These will be attacked and dissolved by the acid of the vitriol, while the copper naturally contained in the vitriol will be sunk and deposited in the place of the iron dissolved. If the piece of iron be too large for dissolving, it will be so completely covered with particles of copper as to resemble that metal itself.

43. *To so fill a glass with water that it cannot be removed without spilling the whole.*—This is a mere trick; but may afford some amusement. You offer to bet any person that you will fill a glass with water that he shall not move it off the table without spilling the whole contents. You then fill the glass, and laying a piece of paper or thin card over the top, you dexterously turn the glass upside down on the table, and then drawing away the paper, you leave the water in the glass, with its foot upwards. It will therefore be impossible to remove the glass from the table without spilling every drop.

44. *A Powder which catches fire when exposed to the air.* Put three ounces of rock alum, and one ounce of honey or sugar, into a new earthen dish, glazed, and which is capable of standing a strong heat; keep the mixture over the fire, stirring it continually till very dry and hard: then remove it from the fire, and pound it to a coarse powder. Put this powder into a long necked bottle, leaving part of the vessel empty; and having placed it in a crucible, fill up the crucible with fire sand, and surround it with burning coals. When the bottle has been kept at red heat for about seven or eight minutes, and no more vapour issues from it, remove it from the fire, then stop it with a piece of cork; and having suffered it to cool, preserve the mixture in small bottles well closed.

If you uncloset one of these bottles, and let fall a few grains of this powder on a bit of paper, or any other very dry substance, it will first become blue, then brown, and will at last burn the paper on which it is placed.

45. *Golden Ink.*—Take some white gum arabic, reduce it to impalpable powder, in a brass mortar; dissolve it in strong brandy, and add a little common water to render it more liquid. Provide some gold in a shell, which must be detached, in order to reduce it to a powder. When this is done, moisten with this gummey solution, and stir the whole with a small hair brush, or your finger; then leave it for a night, that the gold may be better dissolved. If the composition becomes dry during the night, dilute it with more gum water, in which a little saffron has been infused; but take care that the gold solution be sufficiently liquid to flow freely from the pen. When the writing is dry, polish it with a dry tooth.

46. *Another way.*—Reduce gum ammoniac into powder, and dissolve it in gum arabic water, to which a little garlic juice has been added. This water will not dissolve the ammoniac so as to form a transparent liquid; for the result will be a milky liquor. With this liquor form your letters or ornaments on paper or vellum, with a pen or fine camel's hair brush; then let them dry, and afterwards breathe on them some time, till they become moist; then apply a few bits of leaf-gold to the letters, which you press down gently with cotton wool. When the whole is dry brush off the superfluous gold with a large camel's hair brush, and burnish with a dry tooth.

47. *White ink for writing on black paper*.—Having carefully washed some egg-shells, remove the internal skin, and grind them on a piece of porphyry. Then put the powder in a small vessel of pure water, and when settled at the bottom, draw off the water, and dry the powder in the sun. This powder must be preserved in a bottle; when you want to use it, put a small quantity of gum ammoniac into distilled vinegar, and leave it to dissolve during the night. Next morning the solution will appear white; and if you strain it through a linen cloth, and add to it the powder of egg-shells, you will obtain a very white ink.

48. *To construct paper balloons*.—Yake several sheets of silk paper; cut them in the shape of a spindle; or, to speak more familiarly, like the coverings of the sections of an orange; join these piecetogether into a spherical or globular body, and border the aperture with a ribbon, leaving the ends, that you may suspend from them the following lamp. Construct a small basket of very fine wire, if the balloon is small, and suspend it from the aperture, so that the smoke from the flames of a few sheets of paper, wrapped together, and dipped in oil, may heat the inside of it. Before you light this paper, suspend the balloon so that it may, in a great measure, be exhausted of air, and, as soon as it has been dilated, let it go, together with the wire basket, which will serve as ballast.

49. *The fiery fountain*.—If twenty grains of phosphorus, cut very small, and mixed with forty grains of powder of zinc, be put into four drachms of water; and two drams of concentrated sulphuric acid, be added thereto, bubbles of inflamed phosphorated hydrogen gas will quickly cover the whole surface of the fluid in succession, forming a real fountain of fire.

50. *To give silver the colour of gold*.—Dissolve in common aqua-fortis as much silver as you please; to eight ounces of silver take four ounces of hepatic aloes, six ounces of turmeric, two ounces of prepared tutty, that has been several times quenched in urine. Put these to the solution of the silver, they will dissolve, but rise up in the glass like a sponge; the glass must therefore be large, to prevent running over, then draw it off, and you will have ten ounces of silver as yellow as gold.

51. *A liquor to remove spots, &c.*—Dissolve two ounces of pearlash in a quart of spring water, to which add two lemons cut into small pieces; mix this well, and keep it in a warm state two days, by placing it near the fire, strain it off, and keep it in a bottle for use. To use it, pour a little upon the part, and when it disappears, wash the part in cold water. This is a useful article to remove pitch, grease, &c.

52. *Nankeen dye.*—Boil equal parts of arnatto and pot-ash in water till the whole are dissolved. This will produce the pale reddish buff, so much in use, and sold under the name of nankeen dye.

53. *To dye silk a fair blue.*—Take white silk, and soak it in water, then having wrung the water out, add eight ounces of woad, four ounces of indigo, and one ounce of allum; then warm and dissolve them in the water: after which, dip your materials till the colour has taken.

54. *To stain leather gloves.*—Those pleasing hues of yellow, brown, or tan colour, are readily imparted to leather gloves, by this simple process: Steep saffron in boiling-hot soft water for twelve hours, then having sewed up the tops of the gloves, to prevent the dye from staining the insides, wet them over with a sponge, dipped into the liquid. The quantity of saffron, as well as of water, depends on how much dye may be wanted, and their relative proportions on the depth of colour required. A common tea-cup will contain sufficient in quantity for a single pair of gloves.

55. *To make spruce beer.*—This cheap and wholesome liquor is thus made: take of water sixteen gallons, and boil the half of it; put the water thus boiled, to the reserved cold part, which should be previously put into a barrel, or other vessel; then add sixteen pounds of treacle or molasses, with a few table spoonsful of the essence of spruce, stirring the whole together; add half a pint of yeast; keep it in a temperate situation, with the bung-hole open, for two days, till fermentation subsides; close it up, or bottle it off, and it will be fit to drink in a few days.

56. *Useful properties of charcoal.*—All sorts of glass vessels and other utensils may be purified from long retained smells of every kind, in the easiest and most perfect manner, by rinsing them out with charcoal powder, after the grosser impurities have been scoured off with sand and pot-ash. Rubbing the teeth, and washing out the mouth, with charcoal powder, will render the teeth beautifully white, and the breath perfectly sweet, where an offensive breath has been owing to a scorbutic disposition of the gums. Putrid water is immediately deprived of its smell by charcoal.

57. *Portable glue.*—Take half a pound of fine glue, boil and strain it clear, then boil two ounces of isinglass, put it in a double glue-pot, with four ounces of brown sugar, and boil it pretty thick: pour it into plates, when cold, cut them into small pieces, and dry them. This is an excellent cement for paper, as it instantly dissolves in warm water, and fastens the paper very firmly.

58. *Ink.*—Take two gallons of soft water, and a pound and a half of bruised blue-galls; infuse them one month, and stir them daily; then add half a pound each of green copperas, logwood chips, gum arabic and a gill of brandy

59. *To make starch.*—Peel and grate a quantity of potatoes, but the pulp into a coarse cloth between boards, and press it into a dry cake; the juice thus pressed out of the potatoe must be mixed with an equal quantity of water, and in an hour's time, it will deposit a fine sediment, which may be used as starch.

60. *To take iron stains out of marble.*—Mix equal quantities of spirit of vitriol and lemon-juice, shake it well; wet the spots, and in a few minutes, rub with soft linen, till they are gone.

61. *To varnish drawings or card-work.*—Boil some parchment in clear water, in a glazed pipkin, till it becomes a fine clear size, strain, and keep it for use; give your work two coats, observing to do it quickly and lightly; when dry apply your varnish.

62. *To take out mildew from clothes.*---Mix some soft soap with powdered starch, half as much salt, and the juice of a lemon, lay it on the part with a brush; let it lay on the grass, day and night, till the stain comes out.

Iron-moulds may be removed by the salt of lemons. Many stains may be removed by dipping the linen in sour butter-milk, and then drying it in a hot sun; wash it in cold water, repeat this three or four times. Stains caused by acids may be removed by tying some pearlash up in the stained part; scrape some soap in cold soft water, and boil the linen till the stain is gone.

63. *To make old writing legible.*---Take six bruised galls, and put them to a pint of strong white wine; stand it in the sun forty-eight hours; dip a brush into it, and wash the writing, and by the colour you will discover whether your mixture is strong enough of the galls.

64. *Lavender water.*---Take a quart of rectified spirits of wine, essential oil of lavender two ounces, essence of ambergris five drachms; put it all into a bottle, and shake it till it is incorporated. Or, put two pounds of lavender blossoms into half a gallon of water, and set them in a still over a slow fire, distill it off gently till the water is all exhausted; repeat the process a second time: cork it closely down in bottles.

65. *Rose water.*---When the roses are in full bloom, pick the leaves carefully off, and to every quart of water put a peck of them; put them in a cold still over a slow fire, and distill gradually; then bottle the water; let it stand in the bottle three days, and then cork it close.

66. *Milk of roses.*---Mix four ounces of the oil of almonds, with half a gallon of rose water, and then add forty drops of the oil of tartar.

67. *Hungary water.*---Put some rosemary flowers into a glass retort, and pour on them as much spirits of wine as the flowers will imbibe; dilute the retort well, and let the flowers stand six days; then distil in a sand heat.

68. *Honey water*.—To every quart of spirits of wine, put six drachms of essence of ambergris; pour it into a bottle, and shake it well daily.

69. *Windsor soap*.—Cut some new white soap into thin slices, melt it over a slow fire, and scent it with oil of caraway; when perfectly dissolved, pour it into a mould, and let it remain a week, then cut it into such sized squares as you may require.

70. *Weak eyes*.—May be relieved by washing them in cold water; or dissolve four grains of the sugar of lead, and crude sal ammoniac in eight ounces of water; to which add a few drops of laudanum; with this mixture bathe the eyes night and morning. Rose water is also good for the eyes.

71. *Inflamed eyes*.---Leeches should be applied to the temples, and when the bleeding has ceased, a blister may be applied, and a little opening medicine taken. Shaking the head, and bathing the feet in warm water, will be found very beneficial.

72. *Worm-powder*.---Worm-powder is made of an ounce of tin finely powdered, and two drachms of Ethiop's mineral, mixed together, divide it into six doses, and take one of them in a little syrup twice a day; when they are used, work them off with a little rhubarb.

73. *Freckles on the face*.---To disperse them, take two ounces of lemon juice, half a drachm of powdered borax, and one drachm of sugar, mix them, and let them stand a few days in a glass bottle till the liquor is fit for use; then rub it on the hands and face occasionally.

74. *Spermaceti ointment*.---Take half a pint of sallad oil, half a pound of white wax, and an ounce of spermaceti; melt the whole over a gentle fire, and keep it stirring till the ointment is cold.

75. *Lip salve*.---Take four ounces of white whey, one ounce of spermaceti, and half a pint of oil of almonds;

melt it in a water bath, see receipt 28: when melted, put in a small quantity of alkanet root, hid in a linen bag, to prevent it mixing with the other ingredients, the colour being the only part wanted, which the heat carries it to ooze through the cloth or bag. Stir it with a knife till it gets red; take out the alkanet root, and add a little essence of lemon or bergamot, run it into boxes for use.

76. *Camphorated oil.*---Beat two ounces of camphor in a mortar, with four ounces of Florence oil, till the camphor is dissolved; this makes an excellent liniment for the rheumatism, and other cases of extreme pain.

77. *Opening pills.*---Take four drachms of Castile soap, and the same quantity of succotrine aloes, make it into pills, with a sufficient quantity of syrup. Two or three may be taken when costive.

78. *Another.*---Take four drachms of the extract of jalap, the same quantity of vitriolated tartar, and form it into pills with syrup of ginger; five of those pills is sufficient for a purge; but to keep the body gently open, one may be taken night and morning.

79. *Orangeade or lemonade.*---Press the juice out; then pour boiling water on a part of the peel, and cover it close; boil some water and sugar to a thin syrup, and skim it well; when all are cold, mix the juice, the infusion, and the syrup, and strain the whole.

80. *Draught for a cough.*---Beat two fresh eggs, mix them with half a pint of new milk warmed, two table spoonsful of capiliare, the same quantity of rose-water, and a little nutmeg. It must not be warmed after the egg is added. Take it the first and last thing.

81. *Fever.*---Boil three ounces of currants, two of raisins carefully stoned, and an ounce and an half of tamarinds, in three pints of water, till it is reduced to a quart, strain it, throw in a bit of lemon-peel, and let it stand an hour.

82. *Saloop*.—Boil some wine, water, sugar, and lemon peel together; then add the saloop powder, rubbed smooth with a little cold water, and boil the whole a few minutes.

83. *Sago*.—Soak your sago in cold water one hour, wash it well, and pour off the water; add some more, and simmer the whole till the berries are clear: add lemon, wine, spice, and sugar, and boil the whole up together.

84. *Mulled Ale*.—Boil a quart of good ale with some nutmeg, beat up six eggs, and mix them with a little cold ale, then pour the hot ale to it, and return it several times to prevent it curdling; warm, and stir it till sufficiently thick, add a piece of butter, or a glass of brandy and serve it with dry toast.

85. *Arrow root*.—Care must be taken to procure that which is genuine, mix it in the same manner as you would starch; then add a glass of sherry, with sugar and nutmeg to fancy, or a little brandy.

86. *Tapioca jelly*.—Wash some tapioca in cold water, and soak it in fresh water six hours; let it simmer in the same water, with a bit of lemon-peel, till it becomes clear, then add lemon-juice, wine, and sugar agreeable to taste.

87. *Observations upon a leech, by a gentleman who kept one several years for the purpose of a weather glass*.—A phial of water, containing a leech, I kept on the frame of my lower chamber window sash, so that when I looked in the morning, I could know what would be the weather of the following day.

If the weather proves serene and beautiful, the leech lies motionless at the bottom of the glass, and rolled together in a spiral form.

If it rains before or after noon, it is found crept up to the top of its lodging, and there it remains till the weather is settled.

If we are to have wind, the poor prisoner gallops through its limpid habitation, with amazing swiftness, and seldom rests till it begins to blow hard.

If a remarkable storm of thunder and rain is to succeed, for some days before it lodges almost continually without the water, and discovers uncommon uneasiness, in violent throes, and convulsive-like motions.

In the frost, as in clear summer weather, it lies at the bottom. And in snow, as in rainy weather, it pitches its dwelling upon the very mouth of the phial.

What reasons may be assigned for them, I must leave philosophers to determine, though one thing is evident to every body, that it must be affected in the same way with that of the mercury and spirits in the weather-glass, and has a very surprising sensation, that the change of weather, even days before, makes a visible alteration upon its manner of living.

Perhaps it may not be amiss to note, lest any of the curious should try the experiment, that the leech was kept in an eight ounce phial close, about three fourths filled with water, and covered on the mouth with a bit of linen rag. In the summer the water is changed once a week, and in the winter once a fortnight. This is a weather-glass which may be purchased at a very trifling expence, and which will last some years.

88. *The following is a most excellent remedy for a cold.*—Take a large tea-cup-full of linseed, two penny worth of stick-liquorice, and a quarter of a pound of sun raisins. Put these into two quarts of soft water, and let it simmer over a slow fire till it is reduced to one; then add to it a quarter of a pound of brown sugar-candy pounded, a table-spoonful of old rum, and a table-spoonful of the best white wine vinegar, or lemon-juice.

Note. The rum and vinegar are best to be added only to the quantity you are going immediately to take; for, if it is put into the whole, it is apt to grow flat.

Drink half a pint at going to bed, and take a little when the cough is troublesome.

This receipt generally cures the worst of colds in two or three days, and, if taken in time, may be said to be almost an infallible remedy. It is a most balsamic cordial for the lungs, without the opening qualities which endanger fresh colds in going out. It has been known to cure colds that

have been almost settled into consumptions in less than three weeks.

89. *Paregoric Elixir*.—Take of flowers of benzion, half an ounce, opium two drachms. Infuse in one pound of the volatile aromatic spirit, for four or five days, frequently shaking the bottle; afterwards strain the elixir.

This is an agreeable and safe way of administering opium. It eases pain, allays tickling coughs, relieves difficult breathing, and is useful in many disorders of children, particularly the whooping cough.

The dose to an adult is from fifty to an hundred drops.

90. *Stomachic elixir*.—Take of gentian root two ounces; Curassao oranges one ounce; Virginian snake-root half an ounce. Let the ingredients be bruised, and infused for three or four days in two pints of French brandy; afterwards strain out the elixir.

This is an elegant stomachic bitter. In flatulencies, indigestion, want of appetite, and such like complaints, a small glass of it may be taken twice a day. It likewise relieves the gout in the stomach, when taken in a large dose.

91. *Ointment of Calamine*.—Take of olive oil, a pint and half; white wax, and calamine stone, levigated, of each half a pound. Let the calamine stone, reduced into a fine powder, be rubbed with part of the oil, and added to the rest of the oil and wax, previously melted together, continually stirring them till quite cold.

This ointment, which is commonly known by the name of *Turner's cerate*, is a good application in burns and excoriations, from whatever cause.

92. *Emollient ointment*.—Take of palm oil, two pounds; olive oil, a pint and an half; yellow wax, half a pound; Venice turpentine, a quarter of a pound. Melt the wax in the oils over a gentle fire; then mix the turpentine, and strain the ointment.

This supplies the place of *Althæa ointment*. It may be used for anointing inflamed parts, &c.

93. *Yellow basilicum ointment*.—Take of yellow wax, white resin, and frankincense, each a quarter of a pound; melt them together over a gentle fire; then add, of hogs' lard, one pound. Strain the ointment while warm.

This ointment is employed for cleansing and healing wounds and ulcers.

94. *Electuary for the piles*.—Take flowers of sulphur, one ounce; cream of tartar, half an ounce; treacle, a sufficient quantity to form an electuary.

A tea-spoonful of this may be taken three or four times a-day.

95. *Useful embrocation*.—This receipt was never before made known to the public in any shape whatever. In the capital of the west of England, (it was, and I believe is now,) made by a chemist, and sold as patent medicine. The success that attends its application in all kinds of bruises, swellings, green wounds, cuts, and sores, has obtained it an immense sale. Most families, who has witnessed its effects, keep it in their houses, as a remedy for all casual accidents.—Indeed I strongly recommend it, having witnessed its powers in several instances. The cheapness of the composition gives it a double claim to public patronage. It is made in the following manner:

Take half an ounce of camphor, cut it into small pieces, and dissolve it in half a pint of spiritss of wine, in a closely corked bottle: when completely dissolved, add one pint of ox-gall, (which can be had at any butchers) and about forty or fifty drops of laudanum; shake it well, and bottle for use. The application is simple, requiring nothing more than being applied with some lint dipped into it.

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96. *Efficacious ointment for the Itch*.—Mix two ounces of lard, with one ounce of sulphur-vivum, and a few drops of essence of lemons. On going to bed apply the whole of this by well rubbing it on every part of the body, arms, &c. especially the parts most affected. The next morning let the ointment be washed off with soft soap and warm water; change the linen and clothes: should the disease

not be entirely eradicated with one application, try another in the same manner. At the same time, take some flower of sulphur, mixed with a little cream of tartar, in milk, beer, or treacle. Should there be more than one in the family, it is necessary that each apply the above quantity, and half the quantity for a child.

97. *The artificial rainbow.*—Opposite a window into which the sun shines direct, suspend a glass globe, filled with clean water, by means of a string that runs over a pulley, so that the sun's rays may fall on it. Then drawing the globe up, you will observe, by placing yourself in a proper situation, a purple colour in the glass; and by drawing it up gradually higher, the other prismatic colours, blue, green, yellow, and red, will successively appear; after which, the colours will disappear, till the globe is raised to about fifty degrees, when they will again appear, but in an inverted order, the red appearing first, and the blue or violet last; on raising the globe a little higher, they will totally vanish.

98. *Curious experiment with the magic lantern.*—The construction of this amusing optical machine is so well known, that to describe it would be superfluous; particularly as it can now be purchased very reasonable at any of the opticians; but as many persons who have a taste for drawing might not be pleased with many designs to be had at the shops, or might wish to indulge their fancy in a variety of objects, which to purchase would become expensive; we present our readers, in the first place, with the method of drawing them, which will be succeeded by a plain description of diverting experiments.

99. *Of painting the glasses.*—You first draw on a paper the size of the glass, the subject you mean to paint; fasten this at each end of the glass with paste, or any cement, to prevent it from slipping. Then with some very black paint mixed with varnish, draw with a fine camel's hair pencil, very lightly, the outlines sketched on the paper, which are reflected through the glass. Some persons affirm that these outlines can be traced with japan writing

ink, and a common pen with a fine nib; but this, even if it succeeds in making a delicate black outline, is likely to be effaced by damp or wet.

It would add to the natural resemblance, if the outlines were drawn with a strong tint of each of the natural colours of the object; but in this respect please your own fancy. When the outlines are dry, colour and shade your figures; but observe, to temper your colours with strong white varnish. A pleasing effect will be produced, if you leave strong lights in some parts of the drapery, &c. without any colours. The best colours for this purpose are transparent ones; opaque or mineral colours will not do. The following are in most repute.

For Pink and crimson.....	Lake or carmine
Blue	Prussian blue
Green.....	Calcined Verdigris, or distilled do.
Yellow	Gumboge.

100. *A liquor that shines in the dark.*—Take a bit of phosphorus, about the size of a pea; break it into small parts, which you are to put into a glass, half full of water, and boil it in a small earthen vessel, over a moderate fire. Have in readiness a long narrow bottle, with a well fitted glass stopper, and immerse it, with its mouth open, into boiling water. On taking it out, empty the water, and pour in the mixture in a boiling state; then put in the stopper, and cover it with mastich, to prevent the entrance of the external air.

This water will shine in the dark for several months, without being touched; and if it be shaken in dry warm weather, brilliant flashes will be seen to rise through the middle of the water.

101. *To melt a piece of money in a walnut-shell, without injuring the shell.*—Bend any thin coin, and put it into half a walnut shell; place the shell on a little sand, to keep it steady. Fill the shell with a mixture made of three parts of very dry pounded nitre, one part of flowers of sulphur, and a little saw-dust well sifted. If you then set light to the mixture, you will find, when melted, that the metal will also be melted in the bottom of the shell in form

of a button, which will become hard when the burning matter round it is consumed; the shell will have sustained very little injury.

102. *Luminous liquor*.—Put a little phosphorus with essence of cloves, into a bottle, which must be kept closely stopped. Every time the bottle is unclosed, the liquor will appear luminous. This experiment must be in the dark.

103. *The burnt writing restored*.—Cover the outside of a small memorandum book with black paper, and in one of its inside covers make a flap, to open secretly, and observe there must be nothing over the flap but the black paper that covers the book.

Mix soot with black or brown soap, and rub the side of the black paper next the flap; wipe it clean, so that a white paper pressed against it will not receive any mark.

Provide a black lead pencil that will not mark without pressing hard on the paper. Have a small box, about the size of a memorandum book, and that opens on both sides, but on one of them by a private method. Give a person the pencil and a slip of thin paper, on which he is to write what he thinks proper; you present him the book, at the same time, that he may not write on the bare board. You tell him to keep what he writes to himself, and direct him to burn it on an iron plate, laid on a chafing dish of coals, and give you the ashes. You then go into another room to fetch your magic box, before described, and take with you the memorandum book.

Having previously placed a paper under the flap in the cover of the book, when he presses hard with the pencil, to write on his paper, every stroke, by means of the stuff rubbed on the black paper, will appear on that under the flap. You take it out, and put it into one side of the box.

You then return to the other room, and taking a slip of blank paper, you put it into the other side of the box, strewing the ashes of the burnt paper over it. Then shaking the box for a few moments, at the same time turning it dexterously over, you open the other side, and shew the person the paper you first put in, the writing on which he will readily acknowledge to be his.

If there be a press or cupboard that communicates with the next room, you need only put the book in the press, and your assistant will open it, and put the paper in the box, which you presently after take out and perform the rest of the amusement as before.

There may likewise be a flap on the other cover of the book, and you may rub the paper against that with red lead. In this case you give the person the choice of writing either with a black or red pencil; and present him the proper side of the book accordingly.

104. *To soften iron or steel.*—Either of the following simple methods will make iron or steel as soft as lead:

1. Anoint it all over with tallow; temper it in a gentle charcoal fire, and let it cool of itself.

2. Take a little clay, cover your iron with it, temper it in a charcoal fire.

3. When the iron or steel is red hot, strew hellebore on it.

4. Quench the iron or steel in the juice or water of common beans.

105. *To cast figures in imitation of ivory.*—Make isinglass and strong brandy into a paste, with powdered egg-shells very finely ground. You may give it what colour you please; but cast it warm into your mould, which you previously oil over. Leave the figure in the mould till dry, and you will find, on taking it out, that it bears a very strong resemblance to ivory.

ART OF DYING WOOD, &c. &c.

It is a well known fact, that the art of dying wood, &c. is but partially known to the cabinet makers, and an entire secret to the public, being principally confined to persons, who are desirous to keep the art to themselves, and monopolize the entire profits arising from its practice. It is hoped, therefore,

that the receipts following, will be found serviceable to the public at large, and to the respectable body of cabinet makers in particular.

GENERAL OBSERVATIONS.

It being necessary to say something as to the quality, nature, and texture of the wood most fit for dying, I shall state my remarks according to the following order:

First, the wood mostly used to dye black is pear-tree, holly and beech, all of which take a beautiful black; it should at the same time be observed not to take wood which has been long cut, or aged, but as fresh as possible. I have likewise found, that after the veneers have had an hour's boiling, and taken out to cool, that the colour has struck much stronger. It should likewise be observed, that after the veneers are dyed, they should be dried in the air, and not by the fire, or in a kiln of any kind, as it tends to destroy the colour.

Secondly, in order to dye blue, green, red, or other colours, take clear holly, put the veneers first in a box or trough, with clear water, and let them remain four or five days, changing the water once or twice as you find occasion; the water acting as a purgative on the wood will bring forth abundance of slime &c. letting them dry about twelve hours before they are put in the dye; by observing this you will find the colour strike quicker and be of a brighter hue.

106. *A fine black dye.*—Have a chair-makers copper fixed, into which put six pounds of chip log-wood, and as many veneers as it will conveniently hold without pressing too tight; then fill with water and let it boil slowly for about three hours; then add half a pound of powdered verdigris, half a pound of copperas, and four ounces of bruised nut-galls filling the copper up with vinegar as the water evaporates; let it gently boil two hours each day till you find the wood to be dyed through, which according to the kind, will be in more or less time.

107. *For a fine blue dye.*—Take a clean glass bottle, into which put one pound of oil of vitriol, then take four ounces of the best indigo pounded in a mortar into small lumps; put

them into the vitriol (take care to set the bottle in a basin or glazed earthen pan, as it will ferment;) after it is quite dissolved, provide an earthen or wooden vessel, so constructed that it will conveniently hold the veneers you mean to dye; fill it rather more than one third with water, into which pour as much of the vitriol and indigo (stirring it about) till you find the whole to be a fine blue dye, by trying it with a piece of white paper or wood; put in your veneers; let them remain till the dye has struck through.

108. *To dye yellow.*—Take of the roots of barberry four pounds, reduce it by sawing to dust, which put in a copper or brass trough, add four ounces of turmeric, to which put four gallons of water; then put in as many white holly veneers as the liquor will cover, boil them together for three hours, often turning them; when cool add two ounces of aqua-fortis, and you will find the dye strike through much sooner.

109. *To dye a bright green.*—Proceed as before to produce a yellow; but instead of aqua-fortis add as much of the vitriolated indigo as will produce the desired colour.

110. *For a bright red.*—Take two pounds of genuine Brazil-dust, add four gallons of water, put in as many veneers as the liquor will well cover, boil them for three hours and let them cool; then add two ounces of alum and two ounces of aqua-fortis; and keep it luke-warm until it has struck through.

111. *To dye a purple.*—Take two pounds of chip logwood, half a pound of Brazil-dust, and add four gallons of water; put in your veneers and boil them well, then add six ounces of pearl-ash and two ounces of alum; let them boil two or three hours every day till you find the colour struck through.

112. *To dye the silver grey.*—Take a cast-iron pot of six or eight gallons, and from time to time collect old iron, nails, hoops, &c. &c. expose them to the weather in it until they are covered with rust, add one gallon of vinegar and two of water; boil all well for an hour, then have your veneers ready, which must be of air-wood (not too dry) put them in the copper you

use to dye black, and pour the iron liquor over them ; add one pound of chip logwood, two ounces of bruised nut-galls, then boil up another pot of the iron liquor to supply the copper with, keeping the veneers covered and boiling two hours a-day.

112. *A good black satin for immediate use.*—Boil half a pound of chip logwood in two quarts of water, then add one ounce of pearl-ash, and apply it hot to the work with a brush ; then take half a pound of logwood and boil it as before in two quarts of water, adding half an ounce of verdigris and half an ounce of copperas ; strain it off and put in about half a pound of rusty steel-filings and apply as before.

113. *To stain beech of a mahogany colour.*—Take two ounces of dragon's blood, break it in pieces, and put it into a quart of rectified spirits of wine ; let the bottle stand in a warm place, shake it frequently, and when dissolved it is fit for use.

114. *Another method.*—Take one pound of logwood, boil it in four quarts of water, add a double handful of walnut peeling ; boil it up again, take out the chips, and add a pint of the best vinegar, and it will be fit for use.

115. *To clean and restore the elasticity of cane chair bottoms, couches, &c.*—Turn up the chair bottom, &c. and with hot water and a sponge wash the cane-work well, so that it may be well soaked ; should it be dirty you must add soap : let it dry in the air and you will find it as tight and firm as when new, providing the cane is not broken.

116. *Varnishing.*—It being the custom, in order to heighten the beauty of fine wood, and give additional lustre to the furniture, &c. to varnish it, the simplicity of the process requires but little to be said on the subject, but for the satisfaction of the reader I shall treat the subject minutely. In London it is not worth while to make varnish unless in a large quantity, there being several shops where it is sold exceeding good at a fair price, for the accommodation of those who do not re-

quire more than a pint or quart at once. That in general use being white hard varnish.

117. *To varnish a piece of furniture.*—First, observe the work to be clean, then see if any knots or blemishes requires filling up, which must be done with cement of the same colour. Have your varnish in an earthen pot, with a piece of wire diametrically across the top, slackened downwards, to stroke the brush against; then see that your brush is clean, and free from loose hairs, dip your brush, and give the work a thin coat, and regular; soon after that another, and another, always taking care not to pass the brush twice in the same place; let it then stand to dry, in a moderately warm place, that the varnish may not chill.

When you have given the work about six or seven coats, let it get quite hard (which you will prove by pressing your knuckle on it, if it leaves a mark it is not hard enough;) then with the three first fingers of your hand rub the varnish till it chafes, and proceed all over that part of the work you mean to polish, in order to take out all the streaks or partial lumps made by the brush; give it then another coat, and let it stand to harden.

118. *To polish varnish*—Has been considered by many as a matter of difficulty, they having furnished themselves with a quantity of materials, and as often failed of success for want of patience, the process being rather tedious.

Take two ounces of Tripoli powdered, put it in an earthen pot or basin, with water to cover it; then take a piece of fine flannel, four double, lay it over a piece of cork or rubber, and proceed to polish your varnish, always wetting it with the Tripoli and water; you will know when the process is done by wiping a part of the work with a sponge, and observe whether there is a fair even gloss, then take a bit of mutton suet, and fine flour, and clean off the work.

119. *General Observations.*—First, the varnish for cabinet work should be very clear and bright, otherwise it will give a dingy shade to all light-coloured woods.

Secondly, some persons polish with rotten stone, others with putty-powder; and I have seen varnish polished with

common whiting and water, but I have found Tripoli to answer best.

120. *To make the best white hard varnish.*—

Rectified spirits of wine.....	two gallons
Gum sandarach	five pounds
Gum mastich	one pound
Gum anime	four ounces

Put these in a clean can or bottle to dissolve, in a warm place, frequently shaking it: when the gum is dissolved, strain it through a lawn sieve, and it is fit for use.

121. *To varnish drawings, painted in water colour, or any kind of paper or card work.*—Take some clear parchment cuttings, boil them in water in a clean glazed pipkin till they produce a very clear size, strain it and keep it for use.

Give your work two coats of the above size, passing quickly over the work, not to disturb the colours; when dry, proceed as before directed with your varnish.

122. *The French method of polishing wood.*—Take a piece of fine pumice stone, and water, and pass regularly over the work with the grain, until the rising of the grain is cut down, then take powdered Tripoli and boiled linseed oil, and polish the work to a bright face, which will be far superior to any other polish, but it requires much more time.

123. *To polish brass ornaments inlaid in wood.*—First, carefully observe to have your brass filed very clean with a smooth file; then take some Tripoli powder very fine, and mix it with linseed oil, and with a rubber of hat you may polish the work as you would polish varnish, until you find the desired effect produced.

N. B. If the work is ebony, or black rose wood, take some elder coal powdered very fine, and apply it dry after you have done with the Tripoli, and it will produce a superior polish.

About the beginning of the last century, an ingenious inlayer, of Liege, in Flanders, invented the art of inlaying cabinets, &c. with brass and tortoiseshell, which were executed with much taste in drawing and skill in workmanship, and

being patronised by the nobility of France, they became indispensable appendages to the boudoir and library.

The Parisians next attempted to copy them, but never succeeded, proofs of which are still to be seen in the mansions of the nobility of this kingdom.

Since which brass has gradually been brought into general use in ornamenting the best work.

The French mode of ornamenting with brass differs widely from ours; theirs being chiefly water-gilt (Or Moulu,) excepting the flutes of columns, &c. which are polished very high with rotten stone, and finished with elder coal.—Many elegant pieces of workmanship have been executed here in the same manner, but from the high prices of casting, chasing, and gilding, it never came into general repute.

Our ingenious brass founders, both in town and country, have at length not only equalled, but surpassed the French in finishing, bronzing, and lackering their exquisite productions—so that at present the use of Or Moulu ornaments is confined to a small circle.

Since the French visited Egypt, the furniture in the first circles of Europe has literally displayed a most grotesque assemblage of monsters from the Nile of Cydnus, which, (however calculated they may be to inspire fear in a beholder,) have caused much joy among the carvers, the race of whom would probably by this time have been extinct.

124. *To make the gold lacker for brass.*---Take of rectified spirits of wine two quarts, and three pounds of seed lac (picked particularly clean, and clear off all black and brown specks and pieces, as upon that depends the entire beauty of the lac) add them together, keep them warm, and shake them often; when the lac is dissolved it is fit for use.

125. *To clean old brasswork for lackering.*---First boil a strong lye of wood ashes, which you may strengthen by soap lees; put in your brass work, and the lacker will immediately come off, then have ready a pickle of aquafortis, and water, strong enough to take off the dirt, wash it immediately after in clean water, dry it well and lacker it.

126. *To clean silver furniture.*---Lay the furniture piece by piece upon a charcoal fire, and when they are just red take

them off, and boil them in tartar and water, and your silver will save the same beauty as when first made. Boiling it in alum water has the same effect.

127. *To polish Ivory.*—Ivory is polished with putty and water, by means of a rubber made of hat, which in a short time produces a fine gloss.

128. *To clean marble, sienna, jasper, porphyry, sciola, &c.*....Mix up a quantity of the strongest soap lees, with quick lime, to the consistence of milk, and lay it on the stone, &c. for twenty four hours, clean it afterwards with soap and water and it will appear as new.

129. *To make the liquid foil for silvering glass globes, bent mirrors, &c.*—Take one ounce of clean lead, and one ounce of fine tin, melt them together in a clean iron ladle, then immediately add one ounce of bismuth, skim off the dross, remove the ladle from the fire, and before it sets, add ten ounces of quicksilver; stir the whole well together carefully, observing not to breathe over it, as the evaporation of the silver is very pernicious.

130. *Another method.*—Take four ounces of quicksilver, to which put as much tin foil as to become barely fluid when mixed; have your globe clean and warm, and inject the quicksilver by means of a clean earthen pipe at the aperture, turning it about till it is silvered all over, let the remainder run out, and hang it up.

131. *To bronse figures, &c.*—For the ground after it has been sized and rubbed down, take Prussian blue, verditer, and spruce ochre, grind them separately in water, turpentine or oil, according to the work; mix them in such proportions as will produce the colour you desire; then grind Dutch metal, commonly called bronze, in the same material, laying it with judgment on the most prominent parts of the figure, produces a grand effect.

132. *A green paint for garden stands, venetian blinds, trellises, &c.*—Take mineral green, and white lead ground in turpentine, mix up a quantity to your mind, with a small

quantity of turpentine-varnish for the first coat ; for the second you must put as much varnish in the colour as will produce a good gloss.

N. B. By adding a small quantity of Prussian blue, you will have the colour much brighter.

133. *To make turpentine varnish.*—Take one gallon of spirits of turpentine, and five pounds of rosin pounded, put it in a tin can, on a stove, and let it boil half an hour ; when cool it is fit for use.

134. *To make a cement of mahogany colour.*—Take two ounces of bees wax, half an ounce of rosin, melt them together, then add half an ounce of Indian red, and a small quantity of yellow ochre, to bring it to the colour you desire : keep it in a pipkin for use.

135. *To make black wax.*—Take two ounces of bees-wax, half an ounce of Burgundy pitch, melt them together, then add one ounce and a half of ivory black, ground very fine and dried.

136. *To make green wax.*—Take two ounce of bees-wax, melt it, and add one ounce of verditer ; let the pipkin be large enough, as it will immediately boil up ; stir it well, and add one quarter of an ounce of rosin ; it will be sufficiently hard, and fit for use.

137. *To make the furniture paste.*—Scrape four ounces of bees-wax into a pot or basin, then add as much spirits of turpentine as will moisten it through ; at the same time powder one quarter of an ounce of rosin, and add to it when it is dissolved to the consistence of paste ; add as much Indian red as will bring it to a deep mahogany colour ; stir it up, and it is fit for use.

138. *Another method.*—Scrape four ounces of bees-was as before, then take a pint of spirits of turpentine in a clean glazed pipkin, to which add an ounce of Alkanet root, cover it close, and put it over a slow fire, attending it carefully, that it may not boil or catch fire ; and when you perceive the colour to be drawn from the root, by the liquid being of a deep

red, add as much of it to the wax as will moisten it through, at the same time add a quarter of an ounce of powdered rosin, cover it close and let it stand six hours, and it will be fit for use.

139. *To soften ivory.*—Slice half a pound of mandrake, and put it in a quart of the best vinegar, into which put your ivory; let it stand in a warm place for forty-eight hours, and you will be able to bend the ivory to your mind.

140. *To solder or weld tortoiseshell.*—Provide yourself with a pair of pincers or tongs, so constructed that you reach four inches beyond the rivet; then have your tortoiseshell filed clean, to a lap joint, carefully observing that there is no grease about it, wet the joint with water, and apply the pincers hot, following them with water, and you will find the shell to be joined as if it were one piece.

141. *To bleach ivory.*—Take a double handful of lime, and slake it by sprinkling it with water, then add three pints of water and stir it up together; let it settle ten minutes, and pour the water into a pan for your purpose; then take your ivory, and steep it into the lime water twenty-four hours, after which boil it in strong alum water one hour, and dry it in the air.

142. *To stain horn to imitate tortoiseshell.*—Take an equal quantity of quick lime, and red lead, mix it up with strong soap lees, lay it on the horn with a small brush, like the mottle in tortoiseshell; when it is dry, repeat it two or three times.

143. *To veneer tortoiseshell on wood.*—First, observe to have your shell of an equal thickness, and scrape and clean the under side very smooth, then take some vermilion finely ground, mix it up with spirits of turpentine and varnish; lay two or three coats of colour on the underside of the shell, till it becomes opaque; when dry, you may lay it down with good glue.

144. *To make portable glue (commonly sold by the name of bank note cement).*—Take one pound of the best glue, boil

and strain it very clear; boil likewise four ounces of isinglass put it in a double glue pot, with half a pound or fine brown sugar, and boil it pretty thick, then pour it out into plates or moulds; when cold you may cut and dry them in small pieces for the pocket.

N. B. This glue is very useful to draftsmen, architects, &c. as it immediately dilutes in warm water, and fastens the paper without the process of damping.

JAPANNING.

It frequently happens that japanned work receives damage when it is very inconvenient (either from distance or other circumstances) to send for the japanner to repair it, therefore it may not be improper to lay down the simplest methods used in that branch.

First provide yourself with a small muller and stone, to grind any colour you may require.

Secondly, provide yourself with white hard varnish, brown varnish, turpentine varnish, japan gold size, and spirits of turpentine, which you may keep in separate bottles for the purpose.

Thirdly, provide yourself with flake white, red lead, vermillion, lake, Prussian blue, king's and patent yellow, orpiment, spruce and brown ochre, mineral green, verditer, burnt amber, and lamp-black.

Observe that all woodwork must be prepared with size, and some coarser material mixed with it, to fill up and harden the grain of the wood, (such as may best suit the colour intended to be laid on) which must be rubbed smooth with glass paper when dry; but in cases of accident it is seldom necessary to resize the damaged places, unless they are considerable.

With the foregoing colours you may match almost any colour now in use for japanning; always observing to grind your colour smooth in spirits of turpentine, then add a small quantity of turpentine and spirit varnish, lay it carefully on with a camel-hair brush, then varnish it with brown or white spirit varnish, according to the colour.

145. *For a black.*---Mix up a little good size and lamp-black, and it will bear a good gloss without varnishing over.

146. *To imitate black rose-wood.*---The work must be ground black, after which take some red-lead well ground and mixed up as before directed, which lay on with a flat stiff brush in imitation of the streaks in the wood; after which take a small quantity of lake, ground fine, and mix it with brown spirit varnish, carefully observing not to have more colour in it than will just tinge the varnish; but should it happen on trial to be still too red, you may easily assist it with a little umber, ground very fine, with which pass over the whole of the work intended to imitate black rose-wood, and it will have the desired effect.

I have seen work done by a good japanner according to the foregoing rule, which when varnished and polished is scarcely to be known from the real wood.

147. *To make the furniture oil.*---Take linseed-oil, put it in a glazed pipkin, with as much alkanet root as it will cover; let it boil gently, and you will find it become of a strong red colour; let it cool, and it is fit for use.

148. *To take ink spots out of mahogany, &c.*---Apply spirits of salt with a bit of rag till the ink disappears.

149. *To make parchment transparent.*---Take a thin skin of parchment, and soak it in a strong lye of wood ashes, often wringing it out till you find it become transparent; then strain it on a frame and let it dry.

150. *A cement to join broken glass.*---Take one ounce of isinglass, steep it in half a pint of spirits of wine for twenty-four hours, then let it dissolve over a slow fire, (always keep it close covered, or the spirit will evaporate) then take six cloves of garlic, bruise them well in a mortar, put it in a linen cloth, and squeeze the juice into the isinglass mix it well together, and keep it for use, it being excellent to join glass ornaments, &c. &c.

151. *To polish any work of pearl.*—Take pumice-stone, finely powdered and washed, and water, with which you may polish it smooth; then take putty powder, and proceed as before, and you will have a fine gloss and colour.

152. *To damask leather for table covers, and other purposes.*—Provide yourself with a block glued up, two feet six inches long, and two feet wide, faced with pear tree, five eighths of an inch thick, upon which have some pretty patterns drawn, that has a good effect in the light and dark shades only, but it must be so divided that it must match end for end, and side for side; which pattern must be sunk in the paper stainer or printer's block, and may be done by any one that knows a little of chair-carving; then strain your leather dry on the block with tack, and with a glass-ball rubber of about four pounds weight pass to and fro over the leather, rubbing hard till you produce the pattern perfectly glazed on the leather.

N. B.—If your cover is larger than the block, be very careful in shifting it, that you may not injure the pattern.

I have made a pattern in wood, which was afterwards cast in brass, repaired, and fixed upon a block, (for a leather gilder) which is much better than one of wood; the pattern comes off much sharper and cleaner.

TO STAIN HARPS, VIOLINS OR ANY OTHER MUSICAL INSTRUMENTS.

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153. *A crimson stain.*—Take one pound of ground Brazil, and boil it in three quarts of water for an hour; strain it, and add half an ounce of cochineal, boil it again for half an hour, gently, and it will be fit for use.

N. B. If you would have it of the scarlet tint, boil half an ounce of saffron in a quart of water, and pass over the work previous to the red strain. Observe the work must be

very clean, and of air-wood, or good sycamore without blemish; when varnished it will look very rich.

154. *For a purple stain.*—Take a pound of chip-log-wood, to which put three quarts of water, boil it well for an hour: add four ounces of pearl-ash, and two ounces of indigo pounded, and you will have a good purple.

155. *For a fine black.*—When black is required, in musical instruments, it is produced by japanning, the work being well prepared with size and lamp-black; take some black japan, (from the varnish makers, and give it two coats, after which varnish and polish it.

156. *A fine blue stain.*—Take a pound of oil of vitriol in a glass bottle, into which put four ounces of indigo, and proceed as before directed in dying.

157. *A fine green stain.*—Take three pints of strong vinegar, to which put four ounces of the best verdigris, ground fine, half an ounce of sap-green, and half an ounce of indigo.

158. *For a bright yellow.*—There is no need whatever to stain the wood, as a very small bit of aloes put in the varnish will make it of a good colour, and has the desired effect.

159. *To make varnish for violins, &c.*—Take half a gallon of rectified spirits of wine, to which put six ounces of gum-sandrach, three ounces of gum-mastich, and half a pint of turpentine varnish; put the above in a tin can, in a warm place, frequently shaking it until it is dissolved, strain it and keep it for use. If you find it harder than you wish, add a little more turpentine varnish.

160. *To stain box wood brown.*—Hold your work to the fire that it may receive a gentle warmth, then take aquafortis, and with a feather pass over the work till you find it change to a fine brown (always keeping it near the fire;) you may then oil and polish it.

161. *To varnish harps, dulcimas, &c. in the Indian manner.*—Prepare the work with size and red ochre, then take ochrr, burnt umber, and red lead, well ground, and mix up a dark brown colour in turpentine varnish, adding as much spirits of turpentine that you may just be able to work it, pass over your work even, and while it is yet wet, take a muslin sieve, and sift as much Dutch metal (bronze) upon it as you may think requisite to produce the effect, after which varnish and polish it.

162. *To destroy bugs.*—Mix half a pint of spirits of turpentine and half a pint of best rectified spirits of wine in a strong bottle, and add about half an ounce of camphire, which will dissolve in a few minutes. Shake the mixture well together; and, with a sponge or brush dipped in it, well wet the bed and furniture where the bugs breed. This will destroy both them and their nits, though they swarm. The dust however should be brushed from the bedstead and furniture, to prevent, from carelessness, any stain. If that precaution is attended to, there will be no danger of soiling the richest silk or damask.

On touching a live bug with only the tip of a pin put into the mixture, the insect will be instantly deprived of life, and should any bugs happen to appear, after using the mixture, it will be from not wetting the linen, &c. of the bed; the foldings and linings of the curtains near the rings or the joints, or holes in and about the bed, in which places the vermin nestle and breed; so that those parts being well wetted with more of the mixture, which dries as fast as it is used, and pouring it into the joints and holes, where the sponge and brush cannot reach, it will never fail totally to destroy them.

The smell of this mixture, though powerful, is extremely wholesome, and to many persons very agreeable. It exhals however in two or three days.

Only one caution is necessary; but that is important. The mixture must be well shaken when used; but never applied by candle light, lest the spirits, being attracted by the flare of the candle, might cause a conflagration.

163. *Instant relief for a pain and lax state of the bowels.* Take twelve drops of laudanum, half a gill of spirituous

cinnamon water; or, if that cannot be immediately had, in the best brandy. This will seldom fail to give instant relief; but should it so fail in the first instance, it may be repeated in about an hour.

164. *Macaroni cordial*.—This favourite French *liqueur* is very little known in England. The secret of making it is, even in France, confined to few persons. We have, with difficulty, obtained the genuine receipt, which is as follows: Infuse, for fourteen days, in nine pints of brandy one pound of bitter almonds, with a small quantity of Bohemian or Spanish angelica root beaten together; shaking frequently the vessel which contains all these ingredients. At the end of that time, place the whole contents in a curbit; and, distilling in a water bath, five pints of spirit thus impregnated with the flavour of the almonds and angelica, make a syrup with five pounds of sugar, two quarts of eau de-mille-fleurs, and three quarts of distilled water. This being mixed with the spirits, add thirty drops of the essence of lemon; then filter it through blotting paper. This operation is readily performed; and the liquor, having once passed through, becomes a delicious cordial, of brilliant clearness; charming, at the same time, both the taste and sight.

165. *Blackman's celebrated oil colour cakes for artists*. The following is the process, as described in the transactions of the Society of Arts.—Take four ounces of gum mastich, and a pint of spirits of turpentine; mix them together in a bottle, stirring them often, till the mastich be dissolved. Where haste is required, some heat may be applied, but the solution is better when made cold. Let the colours be the best you can get; taking care that, by washing, &c. they are brought to the greatest degree of fineness. When the colours are dry, grind them on a hard close stone, for which purpose porphyry is best, in spirits of turpentine, adding a small quantity of the mastich varnish. Let the colours so ground become again dry, then prepare, in the following manner, the composition for forming them into cakes; procure some of the purest spermaceti, melt it in a clean earthen vessel, over a gentle fire, and when fluid, adding one third its weight of poppy oil,

the whole well together. These things being in readiness, place over a frame or support, the stone on which the colours were ground, with a charcoal fire to warm it. This being done, grind the colour fine with a muller, on the warm stone; after which, adding a sufficient quantity of poppy oil and spermaceti, work the whole together with a muller to the proper consistence. Lastly, taking a piece of the fit size for the cake intended to be made, roll it into a ball, put it into a mould and press it, and the process is completed. These cakes, on being wanted for use, must be rubbed down in poppy or other oil, or in a mixture of spirits of turpentine and oil, as may suit the convenience or intention of the artist.

166. *Infallible remedy for the ague.*—Mix a quarter of an ounce each of finely powdered Peruvian bark, grains of paradise, and long pepper, in a quarter of a pound of treacle; of which mixture, take a third part as soon as the cold fit commences, washing it down with half a quartern of the best brandy. As the cold fit goes off, and the fever approaches, take a third part, with the like quantity of brandy; and, on the following morning, fasting, swallow the remainder, and the same quantity of brandy as before. This excellent electuary, which is said never to fail, cured an afflicted person, after being tormented for the greater part of four years, having almost every fit accompanied by delirium, during which period innumerable other remedies had been tried in vain. The person from whom it was obtained, declared that he had cured hundreds of persons, and never met with but a single instance where the three doses did not immediately effect a cure, and even then a second three prevailed. To children under nine years old, half the above quantities must be given.

167. *Bailey's patent cakes for liquid blacking.*—This blacking has been the source of an ample fortune to the patentee, the celebrated Mr. Bailey, of Cockspur Street, Charing-cross, whose exclusive right has lately expired. It is made, according to the specification in the patent office with one part of the gummous juice which issues from the shrub called goat's thorn, during the months of June, July and August; four parts of river water, two parts of neat's-

foot, or some other softening oil; two parts of a deep blue colour, prepared from iron and copper; and four parts of brown sugar-candy. The water is then evaporated till the composition becomes of a proper consistence, when it is formed into cakes of such a size as to produce, when dissolved in hot water, a pint of liquid blacking.

168. *German method of blacking leather.*—Take two pounds of the bark of elder, and the same quantity of the filings of rust of iron; steep them in two gallons of river water, and put them in a cask or earthen vessel closely stopped. After it has stood two months, put to the liquid when well pressed out, a pound of powdered nut-galls, and a quarter of a pound of copperas; then, after stirring it over a good fire, press out the liquid, with which the leather is to be three or four times brushed over, when it becomes of an excellent and most durable black.

169. *An incomparable fumigation, or vapour, for a sore throat.*—Take a pint of vinegar, and an ounce of myrrh; boil them well together about half an hour, and then pour the liquid into a bason. Place over the bason the large part of a funnel which fits it; and, the small end being taken into the mouth of the patient, the fume will be inhaled, and descend to the throat. It must be used as hot as can be borne, and should be renewed every quarter of an hour, till a cure is effected. This remedy seldom fails if persisted in, only for a day or two, and sometimes a very few hours, in the most dangerous state of either an inflammatory or putrid sore throat, or even a quinsy.

170. *Dr. Fuller's vapour for a quinsy.*—Take powdered pepper, one ounce; milk, a quart; and boil them to a pint and half. Put the whole into a glass bottle with a small neck, and let the vapour be received as hot as can be endured with open mouth. "This euporiston," says that learned physician, "more powerfully than any gargle, attenuates, melts down, and draws forth tough phlegm; which, by obstructing the spongy flesh, and hindering the free passage of the blood and humours through them, occasions the inflammation and tumour; and takes off this distemper better than any of them." It is to

be observed, that this is only recommended for a quinsy. It affords good professional authority, for the preferable use of such vapourous inhalements over common gargles and other medicines, in dangerous complaints of the throat, lungs, &c.

171. *A fine balsamic elixir for confirmed conghs and consumptions.*—Take a pint of old rum, two ounces of balsam of Tolu, an ounce and a half of Strasburg turpentine, an ounce of powdered extract of Catechu, formerly called Japan earth, and half an ounce each of gum guaiacum and balsam of copaiva. Mix them together in a bottle, and keep it near the fire, closely corked, for ten days, frequently shaking it during that time. Afterwards let it stand two days to settle, and pour off the clear for use. Half a pint of rum may then be poured over the dregs; and, being treated for twelve days in the same manner as the first will produce more elixir: the dose may be from fifty to a hundred, or even two hundred drops, according to the urgency of the case, taken twice or thrice a day in a wine glass of water.

172. *German cure for a consumption.*—Take a pound of pure honey, and let it boil gently in a stewpan; then having washed, scraped clean, and finely grated with a sharp greater, two large sticks of fresh horse-radish, stir into the honey as much as you can. It must remain in a boiling state five minutes, but stirred so as not to burn; after which, put it into small earthen pots, covered up for use; two or three table spoonsful a day, according to the strength of the patient, is said to perform wonders, even where there is a confirmed phthisis pulmonalis, or consumption of the lungs. It is also serviceable in all coughs where the lungs are greatly affected.

173. *Pleasant emulsion for a cough, cold, or hoarseness.*—Mix half a pint of hyssop water, half an ounce of oil of almonds, two ounces of powdered loaf sugar, and a tea-spoonful of hartshorn: take a table-spoonful every night and morning. If there be any soreness of the throat or breast, add two tea-spoonsful of Friar's balsam, or of Turlington's balsam or drops.

174. *Admirable wash for the hair, said to thicken its growth better than bear's grease.*—Take two ounces each of rosemary, maidenhair, southernwood, myrtle-berries, and hazle-bark, and burn them to ashes on a clean hearth, or in an oven: with these ashes make a strong ley, with which wash the hair at the roots every day, and keep it cut short; this wash, destroys the worm at the root, and proves far more effectual than bear's grease or pomatum, which rather feed than destroy that unsuspected enemy to the human hair.

175. *Genuine Turlington's balsam.*—This is a good vulnerary balsam for common uses; and may be safely taken internally, where the genuine Friar's balsom is not at hand: the receipt for making the true Turlington's balsam, is as follows—take an ounce of the Peruvian balsam, two ounces of the best liquid storax; three ounces of the best gum benjamin, impregnated with almonds; and half an ounce each of the aloes, myrrh, frankincense, angelica roots, and the flowers of St. John's wort. Beat all these ingredients in a mortar, and put them into a glass bottle; adding a pint and a quarter of spirits of wine. Let the bottle stand by the kitchen fire, or in the chimney corner, two days and nights; then decant it off, in small bottles well corked and sealed, to be kept ready for use. The same quantity of spirits of wine poured on the ingredients, well shaken up, and placed near the fire, about six or eight days and nights, will serve for slight occasions, on being bottled in a similar manner.

176. *Cephalic snuff.*—Take half an ounce each of rosemary, sage, lilies of the valley, and the tops of sweet marjoram, with a drachm each of asarabacca root, lavender flowers and nutmeg. Reduce the whole to a fine powder, and take it like common snuff, as often as may be necessary for the relief of the head, &c.: there are many more powerful snuffs, for medicinal purposes, but few so useful, agreeable, and innocent, to be used at pleasure.

177. *The art of making Brillau's incomparable liquid for changing the colour of the hair.*—This is said to be the best liquid in the world for making the hair curl, as well as for

changing that which is disagreeably sandy to a pleasant colour: the method of preparing it is as follows—take two ounces of scrapings of lead, an ounce of hartshorn shavings, a quarter of an ounce of lithage of gold, and a dram of camphor, put them into a pint of soft water, and let them boil for half an hour. When cold and fine, pour the liquid off, and add a drachm each of sugar of lead and rosemary flowers. Boil these up together; pour off the liquid; and when fine, it is fit for use.

178. *Dr. Stoughton's celebrated stomachic elixir.*—Pare off the thin yellow rinds of six large Seville oranges, and put them in a quart bottle, with an ounce of genetian root scraped and sliced, and half a drachm of cochineal. Pour over these ingredients a pint of brandy; shake the bottle well several times during that and the following day; let it stand two days more to settle, and clear it off into bottles for use. Take one or two tea-spoonsful 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 half an ounce of canella alba, (white cinnamon;) and the latter only substituting for cochineal of Stoughton, half an ounce of husked and bruised seeds of the lesser cardamom. In 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 intentions, 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 medicine, to be at all times safely resorted to, there is no need to hesitate recommending Dr. Stoughton's elixir.

179. *Cure for a pimpled face.*—Take an ounce each of liver of sulphur, roch alum, and common salt, and two drachms each of sugar-candy and spermaceti. Pound and sift these articles, then put the whole into a quart bottle, and add half a pint of brandy, three ounces of white lilly water, and the same of spring water. Shake it well together, and keep it for use. With this liquid the face is to be

freely and frequently bathed; remembering to shake the bottle, and, on going to bed, lay all over the face linen which has been dipped in it. In ten or twelve days, it is said, a perfect cure will be effected of this very unpleasant complaint, as nothing in this composition can prove prejudicial.

180. *Art of making red sealing wax.*—To every ounce of shell lac, take half an ounce each of resin and vermilion, all reduced to a powder. Melt them over a moderate fire, and, when thoroughly incorporated, and sufficiently cool, form the composition into sticks, of any length or thickness, and either flat or round, as may be thought best. On account of the dearness of shell lac, seed lac is usually substituted, even in what is denominated the best Dutch sealing wax. Boiled Venice turpentine may be used, with good effect, instead of resin: thus may be made a fine red sealing wax. A more ordinary sort, but very good for most occasions, may be made by mixing equal parts of resin and shell lac, with two parts of red lead, and one of vermilion, instead of all vermilion, according to the proportion directed for the best wax, and to be made in a similar way. In a still commoner sort, the vermilion is often omitted; and even a large proportion of whitening, strange as it may seem, is also actually introduced.

181. *The art of making black sealing wax, &c.*—This sealing wax is made by stirring into any quantity of gum lac, or shell lac, half its weight of finely powdered ivory black; adding—to improve the beauty of the wax, as well as to prevent its becoming too brittle—half their weight of Venice turpentine. When the whole is melted, and incorporated by sufficient stirring over a slow fire, it is poured on a stone or iron plate, which has been previously well oiled, and, while soft, rolled into sticks; the sticks, both of red and black wax, are lastly exposed to a proper degree of heat for acquiring a glossy surface. In a similar way, substituting verditer, Prussian blue, and other proper powder, for ivory black, may easily be made sealing wax of any desired colour.

182. *Soft sealing wax for impressing seals of office, &c*

This sealing wax, which is seldom used for any other purpose than that of receiving the impressions of seals of office to charters, patents, proceedings in chancery, &c. is prepared, when to be used white, by mixing half a pound of bees-wax, an ounce and a half of turpentine, and half an ounce of sweet oil, and carefully boiling them together, till the compound becomes of a fit consistency for moulding into rolls, cakes, or balls, for use. If colour be wanted, it is readily obtained by stirring into the melted mass about half an oz. of a proper pigment, as in making the red or other coloured hard sealing wax.

183. *Curious method of separating gold and silver from lace, without burning it.*—Cut in pieces the gold or silver lace, intended to be divested of any thing but the pure metal; tie it up tightly in linen and boil it in soap ley, till the size appear diminished: then take the cloth out of the liquid, and, after repeatedly rinsing it in cold water, beat it well with a mallet, to extract all the alkaline particles. On opening the linen, to the astonishment of those who have never before witnessed the process, the metallic part will be found pure and undiminished, in all its natural brightness, without a single thread.

184. *Permanent red ink for marking linen.*—This useful preparation, which was contrived by the late learned and ingenious Dr. Smellie, of Edinburgh, who was originally a printer in that city, may be used with either types, a hair pencil, or with a pen: take half an ounce of vermillion, and a drachm of salt of steel; let them be levigated with linseed oil, to the thickness or limpidity required for the occasion. This has not only a very good appearance, but will be found to resist the effects of acids, as well as of all alkaline leys. It may be made of other colours, by substituting the proper articles instead of vermillion.

185. *Best method of making common or simple syrup for general use.*—Dissolve a pound and three quarters of double-refined sugar in a pint of water, by means of what is called the water bath; this, besides other advantages, prevents the possibility of the sugar boiling over: after it has stood a few hours pour it into a stone jar for use.

186. *To gild leather for doors, folding screens, &c.*—Take one dozen of clear brown sheep-skins, damp them with a sponge and water, then strain them tight with tacks on a board, sufficiently large; when dry, size them with a clear double size; then take the whites of fresh eggs, beat them with a whisk to a foam, and let them stand to settle; then taking books of leaf silver (about three dozen will be sufficient, according to the size of the skins,) and blow out the silver on a gilder's cushion; pass over the leather with the egg size, and with a tip-brush lay on the silver, closing any blister with a bit of cotton; when dry varnish them over with yellow lacker till they are of a fine gold-colour; your skins being gilt, cut them out as you please, and join them with paste to any length.

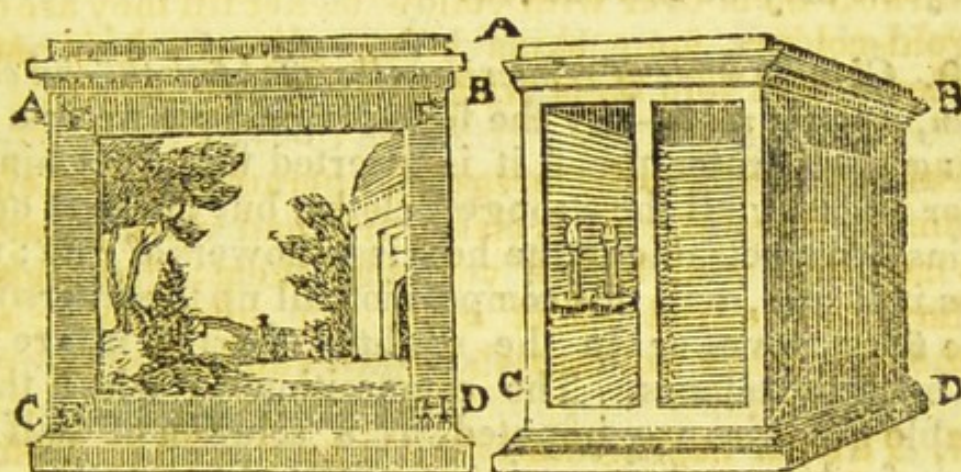
Observe to perform the foregoing operation in the height of summer, when the air is clear, dry, and warm, that the skins may dry well before you size them; that the size may have the desired effect upon the outer pores; and that the silver may not tarnish before you lacker it.

187. *To make improved wholesome purl.*—Take Roman wormwood two dozen, gentian-root six pounds; calamus aromaticus (or the sweet flag root) two pounds; a pound or two of the galien-gale root; horse-radish one bunch; orange-peel dried, and juniper berries each two pounds; seeds or kernels of Seville oranges dried, two pounds.

These being cut and bruised, put them into a clean butt, and start mild brown beer upon them, so as to fill up the vessel about the beginning of November, and let it stand till the next season; and make it thus annually.

188. *Saponaceous draught for the yellow jaundice.*—Take from two scruples to four, according to the age and state of the patient and the disease, of the best Venice soap, and boil it in six ounces of milk till reduced to four, then add three drams of sugar and strain it for a draught. This quantity is to be taken every morning and afternoon for four or five days, and is a prevailing remedy against the jaundice. According to Barbette, a similar draught cured a young woman of the most dreadful epileptic fits, with which she had been afflicted almost a whole year.

189. *Illuminated prospects*.—Provide yourself with some of those prints that are used in optical machines, printed on very thin white paper, taking care to make choice of such as have the greatest effect from the manner in which the objects are placed in perspective. Paste one of these on the borders of a frame, and paint it with the most lively colours, making use of none that are terrestrial. Observe to retouch those parts several times where the engraving is strongest,* then cut off the upper part or sky, and fix that on another frame,



The prints being thus prepared, place them in a box, ABCD. (Eigs. 13 and 14,) the opening to which, EFGH, should be less than the print. Cover this opening with a glass, and paint all the space between that and the prints, which should be two or three inches, black. The frame that contains the sky should be an inch behind the other.

In the back part of this box, which is behind the prints, and which may be four inches deep, place four or five small candlesticks to hold wax lights, and cover that part entirely with tin, that it may be the more luminous.

When the print is placed between the wax lights and the opening in the front of the box, and there is no light in the room, the effect will be highly pleasing; especially if the lights are at a sufficient distance from each other, that they may not occasion any blots in the print. Those

* When you colour a print, place it before you, against a piece of glass, in a position nearly erect, that it may be enlightened by the sun. You may also colour both sides of the print.

prints that represent the rising or setting of the sun will have a very picturesque appearance. Such as represent conflagrations have also a striking effect.

There should be two groves for the print next the glass, that you may insert a second subject before you draw away the first; and that the lights in the back of the box may not be discovered.

You must not, thinking to make the print more transparent, cover it with varnish; for that will prevent the gradation of the colours from being visible. The frame should enter the side of the box by a groove, that a variety of subjects may be introduced.

190. *Chinese mode of rendering all sorts of cloth, and even muslin, water proof.*—By the following simple process for making cloth water-proof, it is asserted that the Chinese render not only all the strongest cloths, but the most open muslins, impenetrable to the heaviest showers of rain; nor yet as it is said, will this composition fill up the interstices of the finest lawn, or in the slightest degree injure the most brilliant colours. The composition to which these valuable qualities are imputed, is a solution of half an ounce of white wax, in a pint of spirits of turpentine. In a sufficient quantity of the mixture, made with these materials, immerse the articles intended to be rendered water-proof, and hang them in the open air till they are dry. This is all the process necessary for accomplishing so desirable a purpose; against which, however, may be objected the expence, and unpleasant scent, of the turpentine spirits; the objection may be remedied by using equal parts of spirits of wine and oil of wormwood, a mixture of which is said to dissipate the smell of turpentine; but the former, must necessarily be, at the same time, in some degree augmented.

101. *Incomparable apricot wine.*—Take eight pounds of ripe apricots, slice them into two gallons of spring water, and add five pounds of powdered loaf sugar. Boil them together for some time, without taking off the scum, then skim it off, and put it in a clean sieve, over a pan to save the liquor which comes from it. When the boiling liquor is as clear as it can be made from the dross of the

sugar, pour it with the drainings of the sieve hot on the kernels of the apricots; which must be put, with the stones into the pan where it is intended the wine should be left to cool. Stir it well together, cover it up till it grows cool, and then work it with a toast and yeast. In two or three days, when it is found to be settled, fine it off into a cask, leaving it to ferment. After it has done working, pour in a bottle of old hock, or sherry, and stop it up for six months; then, if fine, bottle it off, and keep it twelve months. This is a most delicious wine; and when well managed, little inferior to the best productions of the grape.

192. *Pill for an aching hollow tooth.*—Take half a grain each of opium and yellow sub-sulphate of quicksilver, formerly called turpeth mineral; make them into a pill, and place it in the hollow of the tooth some hours before bed time, with a small piece of wax over the top, when it is said never to fail effecting a complete cure.

193. *Liquorice cough lozenges, as made in France.*—Put into an earthen vessel a quart of river water, with a pound of fresh liquorice scraped and cut into very small pieces, two pinches of French or pearl barley, and four apples; make the whole boil over a slow fire for four or five hours, till all is thoroughly done, and the liquor reduced to a pint or less: and then, mixing it together as much as possible, pass it forcibly through a sieve. Into the vessel which receives this mixture, put a pound of clarified syrup, and two ounces of dissolved gum tragacanth; mix and dry up the composition over the fire, stirring it continually with a wooden spoon till it no longer sticks to the fingers, and then empty it on a slab, rubbed over with a little oil. When it is cold, cut it into lozenges, and place them to dry in a warm situation. They may be taken at pleasure, and are very efficacious in curing a catarrh, as well as relieving the violence of obstinate coughs. This is all that can be expected from liquorice and the simple gums; which are sufficient for almost any recent cough, when timely and plentifully taken.

194. *Excellent embrocation for the whooping cough.*—All the dreadful consequences of the chin or whooping cough,

and its commonly tedious duration, may be obviated and shortened by the following remedy—Mix well together half an ounce each of spirit of hartshorn and oil of amber; with which plentifully anoint the palms of the hands, the pit of the stomach, the soles of the feet, the arm-pits, and the back bone, every morning and evening for a month, suffering no water to come near the parts thus anointed, though the fingers and backs of the hands may be wiped with a damp cloth. It should be rubbed in near the fire, and care used to prevent taking cold. It is best to make only the above quantity at a time; because, by frequently opening the bottle, much of the virtue will be lost. It should be kept in a glass stopper bottle. Indeed, the hartshorn is always thus kept by the faculty; and where it forms so large a part of the mixture, the necessity of preventing its effluvia from escaping is equally great. These precautions taken, its use will seldom fail to be attended with success: frequently in a much shorter time than it is judged prudent to advise its being continued, as it can never do the smallest injury even to the tenderest infants.

195. *Art of extracting carmine powder from shreds of scarlet cloth.*—That incomparable crimson colour, called carmine, which so beautifully participates in the most delicate tints of scarlet and of purple, is so very expensive, that miniature painters are often induced to substitute for carmine a composition of lake; by the following process, it is credibly asserted, that a better carmine may be manufactured than much of what is imported from France—Take five or six gallons of the purest water, and dissolve in it a sufficient quantity of pot-ash to make a strong ley. After having filtered the solution, put it in a brass pot, and boil in it a pound of the clean shreds or clippings of the finest scarlet broad cloth dyed in grain, till they have entirely lost their colour; then squeeze the shreds, and pass all the ley through a flannel bag. Dissolve two pounds of alum in a proper quantity of water, and add this solution to the ley; stir them well together, and the whole will become thick. It is then to be repassed through the flannel bag, and the liquor will run out clear; but, if it be at all tinged, it is to be again boiled, with a little alum, and passed through the bag a third time, when all the carmine

will be left behind. Fresh water is then to be poured into the bag, till all the alum is washed away; after which the colour must be dried, so as to prevent any dust from settling on it; and, being previously reduced to an impalpable powder, on glass or marble, it will be fit for use. The best carmine generally sold, is supposed to be manufactured from cochineal, by a process which is carefully concealed among the few who are interested in keeping the secret.

196. *Method of making alum finings for all sorts of spirituous compounds and cordials.*—The method of preparing alum water for the purpose of making finings, is by boiling a drachm of alum in a pint of water, till half the water has evaporated; and putting in the cordial liquor, which requires fining, after the rate of only half a tea-spoonful, made of the warmth of new milk, for every gallon. This small quantity will not be found at all to affect the liquor, but care must be taken never to exceed that proportion.

297. *Artificial musk.*—The mode of making artificial musk, which is used in Germany, for that expensive drug, is as follows—Add, to one drachm of oil of amber, by small portions at a time, four times the quantity of nitrous acid, carefully stirring them together with a glass rod all the time, and continuing to do so till the whole be converted into a yellow resin, possessing the smell of musk. It must be kept closely stopped up, like real musk; and may sometimes supply the place of that high-priced article, not forgetting the nature of its chief ingredient.

198. *Syrup and oxymel of garlic, for old and asthmatic coughs.*—The garlic syrup, though one of the least pleasant syrups which is made, gives the virtues of garlic in the best manner they can be acquired, and retained by means of any watery menstruum. It is prepared according to the Dublin Dispensary, for it does not appear to be now used either in the English or Scotch practice, in the following manner—Macerate one pound of sliced garlic, in a vessel containing two pounds of boiling water, for twelve hours; and add four pounds of refined sugar to

the strained liquor. This syrup may be taken, a tea-spoonful or two at a time, in obstinate coughs, whenever they are troublesome; and it is adapted to be used on such occasions during the night. Garlic is well known to be not only a powerful expectorant, but a good diuretic, even sudorific, provided the patient be kept warm. For these purposes the oxymel of garlic, neglected by all the new dispensatories, seems to be still better than the syrup. It is easily made—Boil a quarter of an ounce each of carraway and sweet fennel seeds, in a glazed earthen vessel containing half a pint of vinegar; when they have boiled a short time, add an ounce and a half of garlic cut in slices, cover the whole closely up, and let it stand till cold. The liquor must then be expressed, and mixed, in a boiling water-bath, with half a pound of clarified honey. — This medicine, it is said, not only relieve, but absolutely cure, an old asthmatic cough.

199. *How to make paper fire-proof.*—This effect is produced by a most simple process. It is only necessary, whether the paper be plain, written, or printed on, or even marbled, stained, or painted for hangings, to immerse it in a strong solution of alum-water, and thoroughly dry it, when it will become fire-proof. This experiment is readily ascertained, by holding a slip of paper thus prepared over a candle. Some paper will require to imbibe more of the solution than it may receive by a single immersion; in which case, the operation of dipping and drying must be repeated till such paper becomes fully saturated, when neither the colour nor quality of the paper will be in the smallest degree affected, but that, on the contrary, both will be even improved.

200. *Dr. Fuller's chemical snuff for the head-ache, palsy, and drowsy distempers.*—Medicinal snuffs, or errhines are chiefly to be used in the morning; but, if needful, at any other time also. Take half a scruple of turpeth mineral, half a drachm of powdered liquorice, a scruple of nutmeg, and two drops of oil of rosemary; make them all into a fine powder, and snuff up into the nose a small quantity. This is so powerful, that it brings off thin lymph. He advises, that it should not be often repeated, without snuff-

ing up after it a little warm milk or oil, to prevent any soreness by fretting the membrane of the nostrils.

201. *To dye silk a fine rose red.*—Take, to every four yards and a half intended to be dyed, a pound and a half of nut galls: boil them, unbruised, in water for two hours. Shift the water, and put in the silk or linen, setting it to soak four hours, then wring it dry, after which heat it in water in which alum has been dissolved; then put in it a pound of Brazil powder, and a pound of green weed, and by dipping in gentle heats the colour heightens.

202. *To dye of a fine blue.*—Soak white silk, stuff or cloth, in water; then, after wringing out, add two pounds of woad, a pound of indigo, and three ounces of alum.—Give the water a gentle heat, and dip till the colour takes.

203. *To dye a carnation or fine red.*—Boil two gallons of wheat and an ounce of alum in four gallons of water. Strain it through a fine sieve; dissolve of more alum, and white tartar, half a pound; add three pounds of madder, and then put in the cloth, &c. at a moderate heat.

204. *To make bran water.*—This is very necessary in dying: there should be great circumspection in preparing it; to half a peck of wheat bran put two gallons of clear water, over a gentle fire, and half a pound of bruised alum, then suffer it to stand a week, often stirring it before it is used.

205. *Electuary for the rheumatism, by Dr. Brookes.*—Take conserve of orange peel, two ounces, cinnabar of antimony levigated half an ounce; gum guaiacum in powder one ounce; Winter's bark in powder, three drachms, syrup of orange peel sufficient to make an electuary. The dose is three drachms, morning and evening.

206. *West india bitters, or antibilious drops.*—The following is said to have been Toussaint, late Emperor of Hayti's celebrated bitters, called by him anti-bilious drops, and used in the West India islands—Take three drachms of Seville orange peel; two drachms of gentian root;

one drachm each of cardamoms, grains of paradise and gal-lengals; half a drachm each of nutmeg and cloves; one scruple each of saffron and cochineal; and half a handful each of camomile flowers and Roman wormwood.

Infuse the whole in two quarts of brandy, rum, or Ma-deira wine; and, after it has stood some time, pour off what is clear, and add to the ingredients a quart more of either liquor, but brandy is best for that purpose. This, too, having remained a longer time, and been occasionally shaken, may be in like manner poured off for use. Two tea-spoonfuls, are directed to be taken, an hour before dinner, in half a glass of wine.

207. *Art of making the best black ink powder.*—Infuse a quarter of a pound of finely powdered nut galls in three pints of rain or river water; exposing it, occasionally, well stirred, to a moderate degree of warmth for a few days, till the colouring matter seems fully extracted: then filter the solution into a vessel slightly covered, and place it in the open air for several weeks; when, on removing the mouldy skin from the top, it must be carefully collected, have hot water poured over it, undergo another filtration, and then be evaporated to dryness. Thus will be produced a grey crystalline salt, called the acid salt of galls, and which is the essential basis of black ink. On triturating a dram of this salt with an equal quantity of vitriol of iron, and a pennyweight of the driest gum arabic, a composition will be obtained which affords an excellent black ink, on being dissolved in warm water.

208. *Dutchess of Rutlands stomach plaister for a cough.* Take bees-wax, Burgundy pitch, and resin, each an ounce, melt them together in a pipkin, and stir in three quarters of an ounce of turpentine, and half an ounce of oil of mace. Spread it on a piece of sheep's leather, grate some nutmeg over the whole plaister, and apply it warm to the stomach.

209. *Easy method of restoring, and rendering legible damaged Parchment Deeds, &c.*—When a parchment deed becomes obliterated and discoloured by moisture, on simply immersing it in spring water, for about a minute,

then pressing it between sheets of blotting-paper, to prevent its shrivelling up while getting dry; it will generally, when it has nearly approached that state, be found to have resumed its original colour, and appear perfectly plain, but should the characters not prove legible on its becoming moderately dry the operation must be repeated as often as it may be necessary.—The following mixture, it is asserted, will make writing which has been obliterated, faded, or sunk, either on paper or on parchment, immediately legible—Bruise two or three nutgalls, infuse them in half a pint of wine, and let the bottle stand for two days in the sun or any other equally warm situation: then wash the part of the parchment or paper which is wanted to have the writing recovered, by means of a sponge or soft brush dipped in the vinous infusion; and the purpose will be immediately answered if it be sufficiently strong. Should that not happen, its powers must be increased by an additional quantity of galls; and perhaps, in some cases, stronger heat, and even stronger wine, may also be necessary.

210. *Japan varnish*.—Take spirits of wine a pint, gum lac four oz., which must be thus cleansed. Break it first from the stick, &c. and then roughly concuss it in a mortar; put it to steep in clear water, tied up in a bag of coarse linen, with a small piece of the best Castile soap, for twelve hours; then rub out all the tincture from it; to which add a little alum, and reserve it apart. The gum lac remaining in the bag with one ounce of sandrach, (some add as much mastick and white amber,) dissolve it in a matras or rundlet, well stopped, with the spirits of wine; by two days' digestion, often agitating it, it will not adhere to the sides of the vessel: then strain it, and press it into a less vessel, and keep it for use, which will be lasting, if well stopped.

211. *Syrup of ginger*.—An agreeable and moderately aromatic syrup, impregnated with the flavour and medicinal virtues of ginger, is thus prepared:—Macerate an ounce and a half of beaten ginger in a quart of boiling water, closely covered up, for twenty four hours; then, straining off the infusion, make it into a syrup, by adding at least two parts of fine loaf sugar, dissolved and boiled up in a hot water bath.

212. *Ginger drops.*—These drops may be made in the following manner:—Beat, in a marble mortar, an ounce of the best candied orange-peel, with a little loaf sugar, and, when it becomes a smooth paste, add half a pound of loaf-sugar, and half an ounce of the best powdered ginger. Then, with a little water to dissolve the sugar, boil the whole to a candy and drop it off from the point of a knife on writing paper, in small round drops, they will come off the paper. When quite cold, are to be kept in papered boxes. Among other good qualities of ginger, it is said to be beneficial in dimness of sight, &c.

213. *Peppermint drops.*—The best peppermint drops are made by sifting finely-powdered loaf sugar into lemon juice sufficient to make it of a proper consistence; then, gently drying it over the fire for a few minutes, and stirring in about fifteen drops of oil of peppermint for each ounce of sugar, dropping them from the point of a knife, like the ginger drops in the preceding article: some, instead of using lemon juice, or any heat, merely mix up the sugar and oil of peppermint with whites of eggs; beating the whole well together, dropping it on white paper, and drying the drops gradually before the fire, at a distance.

214. *Art of making barley sugar.*—Put some common or clarified syrup into a saucepan with a spout, such as for melting butter, if little is wanting to be made, and boil it till it comes to a thickish consistence, carefully taking off whatever scum may rise; and, having prepared a marble stone, either with butter or oil, just sufficiently to prevent sticking, pour the syrup gently along the marble, in long sticks of whatever thickness may be desired; twist it, while hot, at each end, and let it remain till cold, when it will be fit for immediate use.

The rasped rind of lemon, boiled out of the syrup, gives a very agreeable flavour to barley sugar; and, indeed, the best is so prepared. So are Barley-sugar drops.

215. *Best Turkish method of making coffee.*—It is observed by Mr. Eton, in his Survey of the Turkish Empire, that coffee, to be good, must either be ground to an almost impalpable powder, or pounded, as is done by the Turks, in an iron mortar, with a heavy pestle; they put

the coffee quite dry into the pot, over a slow fire, shaking it often, till it gets warm and begins to send forth a fragrant smell; then from another coffee-pot, they pour on it boiling water, or water in which the grounds of the last made coffee had been boiled, and set to become clear; holding it over the fire, till there is a white scum, without suffering it to boil, but only gently to rise.

It is then poured from one pot into the other, and thus soon becomes clear; they often drink it quite thick. Some, to make it clear sooner, either put in a spoonful of cold water, or lay a cloth dipped in cold water on the top of the pot.

216. *English modes of making coffee.*—One of the best methods of preparing coffee in England is, by making four coffee cups, or about a pint, with an ounce of coffee; pouring on it that quantity of water boiling it up for five or six minutes, pouring out, and returning a little of the coffee, two or three times; then putting in two or three small shreds of isinglass, dissolved in a cupful of boiling water, boiling the whole five minutes longer, and keeping the coffee pot close to the fire ten minutes more, to clear; some put in, with the coffee, a small bit of vanilla, which gives a fine flavour; but it must not be suffered to predominate: thus made, though it be too weak, it is pleasant: the strength might be sufficiently augmented by pounding the coffee, as stated above, and adopting the same method with respect to the coffee grounds. Good cream too, instead of very middling milk, makes a vast difference in drinking coffee, however prepared; the sugar, if pure, seems of less importance, though some insist that Lisbon sugar is the best, while many others insist on the superiority of sugar-candy powdered.

217. *Persian art of making yeast with pease.*—The preservation of yeast, having been a subject of much research in Europe, the following particulars may, perhaps, be entitled to attention. On the coast of Persia bread was made in the English manner, of good wheat flour and with the yeast generally used there, which is thus prepared:—Take a tea cup or wine glass full of split or bruised peas, pour on them a pint of boiling water, and

set the whole in a vessel all night on the hearth, or in any warm place; this will be a good yeast, and having a froth on its top next morning. In this cold climate, especially at a cold season, it should stand longer to ferment; perhaps twenty four or forty eight hours, and the quantity of peas should be larger.

Experience, must determine this; the above quantity made as much bread as a half quartern loaf, the quality of which was very good and light.

218. *Patent potatoe composition to be used instead of yeast.*—To make a gallon of this composition, boil eight pounds of potatoes as for eating: bruise them smooth; and mix with them, while warm, two ounces of honey, or any other sweet, and a quart of yeast. For making bread, mix three pints of the above composition, with a bushel of flour, using warm water in making the bread. The water to be warmer in winter than in summer, and the composition to be used in a few hours after it is made: and, as soon as the sponge, or the mixture of the composition with the flour, begins to fall the first time, the bread should be made, and put in the oven.

219. *The true Daffy's elixir.*—Take five ounces of anniseeds, three ounces of fennel-seeds, four ounces of parsley-seeds, six ounces of liquorice, five ounces of senna, one ounce of rhubarb, three ounces of elecampane root, seven ounces of jalap, twenty-one drams of saffron, six ounces of manna, two pounds of raisins, a quarter of an ounce of cochineal, and two gallons of brandy. Stone the raisins, slice the roots, and bruise the jalap. Mix the whole together; and, after letting them stand close covered for fifteen days, strain out the elixir.

So favourite a remedy has Daffy's elixir been, for all chollicy pains, during the last hundred years, that many families have been enriched by its preparation and sale; a few of whom have used not half the ingredients above enumerated. The cheap stuff, commonly used as Daffy's elixir, is little more than an infusion of aniseeds, liquorice, and jalap, in the coarsest, and most fiery malt spirit, lowered with common water.

220. *Epsom salts*.—To form the sulphate of magnesia, commonly known by the name of epsom salts. Take a quantity of common magnesia, and saturize it with diluted sulphuric acid (oil of vitriol with water.)—filter the solution, and chrystalize the salt by concentrating the solution, and then allowing it to cool.

221. *To distinguish the solution of Epsom salts, from that of oxalic acid*.—1st Taste a single drop of the solution, if it is Epsom salts it is bitter, if oxalic acid extremely sour.

2nd. Pour a little tincture of litmus into the solution, if it is a solution of Epsom salts, the blue colour of the litmus in it will be unchanged.—If oxalic acid, the blue will be turned to red.

3rd. A few drops of black ink being thrown into it, if it is Epsom salts it appears rather purple, if on the contrary it is oxalic acid, it will change to a reddish colour.

4th. Oxalic acid, when dropped into water, makes a cracking noise.—Epsom salts does not.

N. B. If the above remarks are attended to, no mistake can possibly occur, by taking the poison (oxalic acid) instead of Epsom salts.

222. *To crytallise Tin*.—After cleaning away every extraneous matter, as dirt or grease, with warm soapy water, rinse your tins in clean water; then, after drying it, give it a heat to the temperature of bare sufferance to the hand, and expose it to the vapour of any acid that acts upon tin, or the acid itself may be poured on, or laid on with a brush, the granular crystallization varying according to the strength of the wash, and the heat of your plates. Hence it must be perceived, whatever quantity is required for any particular job, should be made all at one time; no two makings coming away alike, but depending entirely upon accident.

Wash 1. Take one part by measure of sulphuric acid, and dilute it with five times as much water.

2. Take of nitric acid and water, equal quantities, and keep the two mixtures sepearte.

Then, take of the *first* ten parts, and one part of the *second*; mix, and apply the same with a pencil or sponge

to the surface of the heated tin, repeating the same several times, until the material acted upon loses its heat, or you may be satisfied with the appearance of your work. A transparent varnish is now to be laid on, much whereof will be absorbed, and will of course be affected by any colouring matters you may mix with it; these, however, should not be opaque colours; and a good polish being given to the work, produces that enviably brilliant covering we find lately so much in vogue for covering iron story posts, &c.

223. *Another method.*—The fancy may be employed in using your acids in various degrees of dilution, whereby the cloudy reflections more or less resemble mother of pearl, or assume the deep shades of rude leaves, of stars and other figures or simply shapeless granulations. This is the process of M. Baget, and these his various mixtures. 1. Dissolve four ounces of muriate of soda in eight ounces of water, and add thereto two ounces of nitric acid. 2. To eight ounces of water put two ounces of nitric acid, and three of muriatic acid, 3. To eight ounces of water, add two ounces of muriatic acid, and one of sulphuric acid. One of those mixtures, at your pleasure, is to be poured upon the heated tin, while this rests upon a vessel of stone ware; the mixture is to be poured on by instalment, as it were; the tin is then to be thrown into a slightly acidulated water, and afterwards washed in clean water.

224. *Gold varnish.*—To be laid on the tin which has been ornamented, by undergoing the process just described

Take of shell Lac 2 oz.

Arnatto 1 oz.

Turmeric 1 oz.

Dragon's blood 30 grains.

dissolve the whole in twenty ounces of spirits of wine in a gentle heat.

225. *Inebriation.*—When men are reduced to this degraded state, by the inordinate use of fermented liquors, they may be restored by administering a tea-spoon full of spirits of horthorn, in a glass of water. Smelling at the spirits, dissipates the fumes arising from the same cause.

226 *Steer's opodeldoc.*—Hard mottled soap, one ounce, dissolved in rectified spirits, eight ounces—add camphor, three ounces—oil of origanum, one drachm—oil of rosemary, half a drachm—solution of ammonia, six drachms mix, and bottle for use.

Note—Heat, age, and exposure, deteriorate this excellent family medicine.

227. *An easy method of breaking glass to any required figure.*—Make a small notch, by means of a file, on the edge of a piece of glass, then, make the end of a tobacco-pipe, or of a rod iron of the same size, red hot in the fire, apply the hot iron to the notch, and draw it slowly along the surface of the glass, in any direction you please; a crack will be made in the glass, and will follow the direction of the iron. Round glass bottle or flasks, may be cut in the middle, by wrapping round them a worsted thread: dipped in spirits of turpentine, and setting it on fire, when fastened on the glass.

228. *Red ink.*—Boil an ounce of brazil wood, (in fine chips) and half a pint of water, and add three drachms of gum arabic, and half an ounce of allum.

229. *Blue ink.*—Dissolve a small quantity of indigo in a little oil of vitriol, and add a sufficient quantity of water, in which is dissolved some gum arabic.

230. *Yellow ink.*—Dissolve gamboge in a solution of gum.

231. *Scarlet ink.*—Dissolve vermilion in gum water.

232. *Plummer's pills*—They are an excellent alterative, diaphoretic-purgative, and found most beneficial in cutaneous eruptions—remainder of 'scabs,' or of syphilitic symptoms.—Take of calomel, *one part*—sulphate of antimony the same, and of guaiacum, twice as much; mix these assiduously with mucilage, and divide into any number of pills that contain from three to five grains of the calomel in each, according to the strength of the affected persons; two pills forming the dose. To be taken at night.

233. *To make the admired cosmetic called pearl powder.*---Dissolve bismuth in nitromuriatic acid, and gradually add to the solution cold distilled water, upon which a beautiful white powder will be precipitated.

234. *To stain ivory green.*---Dissolve some copper or verdigris in nitrous acid, and soak the ivory in it.

235. *To stain ivory yellow.*---Put a quarter of a pound of alum in a pint of water, boil the ivory in the solution, then boil it in a decoction of turmeric.

236. *To stain ivory blue.*---Boil it the sulphate of indigo and afterwards in a solution of three ounces of white tartar in a quart of water, or it may be first stained green, and then dipped into a solution of pearl-ashes, made strong and boiling hot.

237. *To stain ivory purple.*---Put into nitros acid one forth of its weight of sal ammoniac, soak the ivory in it.

238. *To make gunpowder.*---Pulverize separately, five ounces of salt petre, one ounce of sulphur, and one of newly burnt charcoal.---Mix them together, with a little water in a mortar, as to make it the consistence of dough, which must be rolled out into round pieces the thickness of a wafer, between two boards, lay a few of these pieces together, and cut them with a knife into small grains, which are to be placed on a sheet of paper, in a warm place to dry.

239. *Permanent ink for marking linen.*---Dissolve a drachm of lunar caustic (which may be had at any druggists) in three drachms of distilled rain water; then add about half a drachm of gum arabic. This forms the ink, with which you must write with a clean pen upon the linen, prepared as follows.

Dissolve half an ounce of subcarbonate of soda in an ounce of water, and add twenty grains of gum arabic. This forms the liquid, which is to be kept in a separate bottle; well moisten the part of the linen (you wish to write on) with this liquid, dry it before a gentle fire, then write as before directed. The writing when exposed to the sun becomes black.

240. *Ink for printing on linen with types.*—Dissolve one drachm of asphaltum, in four drachms of oil of turpentine, then add lamp black or black lead, in fine powder in sufficient quantity to render the ink of a proper consistence for printing with types.

241. *Cure for smoky chimneys*—Inflate a large ox bladder with air, and tie it by the neck to the middle of a stick, which place across the inside of the chimney, about two feet from the top, or at the foot of the chimney-pot. The buoyancy of the air keeps the bladder continually in a circular motion, and thereby prevents the rush of air into the tunnel from descending so low as the fire place.

242. *Modelling.*—The elegant and cheap chimney ornaments, manufactured by oriental seamen (mostly) here in London are formed of rice flour, cast into moulds, or *Shaped* with tools while plastic.

An elegant cement may also be made from rice flour, which is at present used for that purpose in China and Japan. Mix the flour with cold water, and gently simmer over the fire; when it readily forms a delicate and durable cement, not only answering all the purposes of common paste, but is admirably adapted for joining together paper, card, &c. in forming the various beautiful and tasteful ornaments which afford so much employment and amusement to the ladies.

When made of the consistence of plastic clay, models, busts, basso-relievos, &c. may be formed; and the articles, when dry, are susceptible of a high polish and are very durable.

243. *Eau de Luce.*—Is a kind of liquid volatile soap, of a strong pungent smell, and is repared as follows:—Ten or twelve grains of white soap are dissolved in four ounces of rectified spirits of wine, after which the solution is strained; a drachm of rectified oil of amber is then added, and the whole filtred. With this solution mix, in a crystal glass bottle, such a proportion of the strongest volatile spirits of sal-ammoniac as will, when sufficiently shaken produce a beautiful milk-white liquid. If a kind of cream should settle on the surface, add a small quantity of the solution of soap. Those who may wish to have this liquor perfumed may employ lavender or hungary instead of spirits of wine.

244. *Pomad divin.*---Clear a pound and a half of beef marrow from the strings and bones, put it into an earthen pan or vessel of water fresh from the spring, and change the water night and morning for ten days, then steep it in rose water twenty four hours, and drain it in a cloth till quite dry. Take an ounce each of storax, gum benjamin, cypress powder, half an ounce of cinnamon, two drachms, of cloves, and two drachms of nutmegs, all finely powdered, and mix them with the marrow above prepared. Put all the ingredients into a pewter pot that holds three pints; make a paste of white of egg and flour, lay it upon a piece of rag, and over it another piece of linen. With this cover the top of the pot very close that none of the steam may be evaporated; put the pot into a larger copper pot with water, taking care to keep it steady, that the water may not reach to the covering of the inner pot. As the water shrinks, constantly add more, boiling hot; it must boil 4 hours without ceasing.

When the steam has ceased to rise, uncover and strain the ointment through a linen cloth into small pots; and cover these up close with bladder and paper as soon as cold. Silver knives and spatula should be used, those of other materials absorbing a part of the odours.

245. *Gilding upon glass.*---The art of gilding upon glass, which is a revival and improvement upon attempts made many years ago, is chiefly used for decorating the borders of prints, in executing name-plates, and inscriptions for various purposes; as also for ornamental decorations in a variety of elegant works, with different coloured ground; but as black is the most general one in demand, I shall first proceed to treat on that,

You are to procure some of the finest isinglass, which you will distinguish by holding between you and the light, when that which is white and transparent is the best, and the contrary is totally unfit for this purpose: you are to dissolve it in very clean water, pretty thick, and strain it through a linen cloth, then into a tea-cup of very clean milkwarm water; put about the size of a small pea, of the isinglass jelly, which let gently incorporate with water, then having your glass that is to be gilt, quite clear, and free from any dirt or grease, get some leaf gold, the less porous in the beating, the better, put it on a gilding cushion, and cut it in pieces to suit,

according to the breadth you want to have your work gilt : then touch with a hair pencil, dipped in this isinglass water, on the glass, and while moist, lay on your leaf gold, piece by piece, until you have the parts you want covered. The leaf will instantly adhere to the glass ; then place it within air of the fire, in a slanting position, until it dries, which will be in a few minutes. While it is gently warm, take a piece of clean cotton wool, and rub the gold to the glass smartly, until you not only find the superfluous pieces of leaf gold gone, but that likewise the back of the part gilt receives a polish ; then proceed to lay on a second coat of gold, in the same manner as the first, drying it as before, and polishing it ; and so a third coat, which is full sufficient and to gild properly cannot be dispensed with. Then take the size of the print, or drawing, which is to be framed, and laying it on the gilt part of the glass, mark where the corners are to come, with a hair pencil, after which, being provided with a long wooden ruler, and a pointed piece of ivory, draw two parallel lines out of your gold, and with a mahogany stick, pointed cautiously, work away the superfluous part, leaving the gold fillet, which is to encompass your picture, sharp and neat ; when if you have a mind to ornament it by any other lines to appear black, in the centre, lay on your ruler, and with your ivory point scribe them, and then varnish, having some black japan, to which a little burnt lamp-black has been added, to deepen its colour. Paint it all over the gilt part of your glass, and the space between it and the edge, then set it to dry, which will take place in a few hours, when you are to lay out the breadth of the black line, that is to be inside your gilding, scribe it with a sharp point, and cut away the waste black, with a graver or some sharp instrument.

If you want to cut figures, or any kind of ornament out of your gold, after your glass is gilt, have a drawing of your design on paper, at the back of which rub some powdered red chalk, and the smallest quantity of fresh butter, lay the paper on the gold, and with a bluntish ivory point, go over the lines of the drawing, and they will be nicely transferred on the gold ; when you can with an ivory point, trace them out of the gold, and

shade them to fancy, or from the drawing you have by you, and then mixing any colour you choose with white copal varnish, you may vary your ground as you please.

But the most important secret in the glass gilding, is the method which only two or three persons in London are acquainted with; in an instant after your glass is blacked, taking away the parts where your gold is to appear, and the remainder part of the black to stand fast by which means the black gilding work is done in one half the time, and with half the gold leaf. The process is simple, and is thus performed;—You are to get the very best black japan varnish, such as is used for the roofs of carriages, to which you must add a very small share of burned lamp-black, very finely ground in spirits of Turpentine, then, with a flat varnish brush, give your glass one even thin coat, holding it between you and the light, observing that it does not appear a thick dead black, but exhibits a degree of transparency, and not too much so, as to prevent its appearing a good black at the right side of the glass.

After this, you are to have your letters, or ornaments drawn on paper, as before mentioned, and trace it in the same manner on your black varnish, when it is perfectly dry; the drawing will be very critically transferred to the black. You are then to get a fine needle, and fix it in a wooden handle, firmly, with which you are to scribe the outlines, of what black is to come out, through the varnish, so as not an edge hangs to the main body of the black. Then take some thick brown paper, dip it in water, and squeeze it gently, and spread it over the parts of the varnish you want to detach from the glass, and in a few minutes, by raising one edge of the black, it will peel away as clean from the glass as if it never was on it in an instant.

When all the black you want is taken out, lay your glass to the fire, and the remaininig part of the varnish, will instantly become hard, and ready to have the gold put on.

246. *To engrave figures on glass.*—Cover one side of a flat piece of glass, after having made it perfectly clean, with bee's wax, and trace figures upon it with a needle, taking care that every stroke cuts completely through the wax. Next, make a border of wax all round the glass to prevent any liquid when poured on from running off. Now take

some finely powdered fluat of lime, (fluor spar;) strew it evenly over the glass plate, (upon the waxed side,) and then gently pour upon it, so as not to displace the powder, as much sulphuric acid, diluted with thrice its weight of water, as is sufficient to cover the powdered fluor spar. Let every thing remain in this state for three hours, then remove the mixture, and clean the glass by a wash of oil of turpentine, the figures which were traced through the wax will be found engraved on the glass; while the parts which the wax covered will be uncorroded.

247. *Preparation of ginger beer powder.*—Take two drachms of fine loaf sugar, eight grains of ginger, and twenty six grains of carbonate of potass, all in fine powder—mix them intimately in a Wedgewood's ware mortar. Take also, twenty-seven grains of citric or tartaric acid, (the first is pleasantest, but the last is the cheapest.) The beer is prepared from the powder thus: take two tumbler glasses, each half filled with water—stir up the compound powder in one of them, and the acid powder in the other; then mix the two liquors—an effervescence takes place—the beer is prepared, and may be drank off. The effervescence is occasioned by the discharge of the carbonic acid of the carbonate of potass, which is given up because the potass has a stronger affinity for the tartaric acid.

248. *Soda water powders.*—Soda water is prepared from powders precisely in the same manner as ginger beer, (see preceding art.) except that, instead of the two powders, there mentioned, the two following are used: for one glass thirty grains of carbonate of Soda; for the other glass, twenty-five grains of tartaric (or citric) acid.

249. *Lemonade powders.*—Mix one part of citric acid with six parts of finely pounded loaf-sugar; a very fine dry lemonade is thus prepared, which may be preserved for any length of time. The quantity of this mixture necessary to be put into a glass of water to make a pleasant drink must be regulated by the taste of the person using it.

250. *Instantaneous production of curds and whey from milk.*—A very ready and elegant mode of procuring curds, and also a pleasant acidulous whey, is, by adding to a glassful of milk a little solution of citric acid—taking care not to

add too much ; an experiment or two will readily show the quantity necessary to effect the purpose.

251. *To detect copper in pickles or green tea.*—Put a few leaves of the tea, or some of the pickles cut small, into a phial, with two or three drachms of liquid ammonia diluted with one half the quantity of water. Shake the phial ; when if the most minute portion of copper be present, the liquid will assume a fine blue colour.

252. *To discover if bread is adulterated with alum.*—The bread must be soaked in water, and the water in which it has been soaked, a little of any test for sulphuric acid must be added. (Solution of muriate of lime will do.) Upon which, if any alum be present, the liquid will be pervaded with milkiness ; but, if the bread be pure, the liquid will remain limpid.

253. *To prepare parchment for painting.*—Take about a yard and half of list, and roll it up very tight in a circular form ; then take some finely powdered white pumice stone put the list in it, and rub it over the parchment. This plan, which is simple and very common, answers the best of any. If you wish it to take water colours without sinking, choose that which is not spongy and soft, and use alum water with the colours when you mix them for use.

254. *To wash chintz, so as to preserve its gloss and beauty.*—Take two pounds of rice and boil it in two gallons of water, till soft ; when done, pour the whole into a tub ; let it stand till about the warmth you in general use for coloured linens then put the chintz in, and use the rice instead of soap ; wash it in this, till the dirt appears to be out ; then boil the same quantity as above, but strain the rice from the water, and mix it in warm water. Wash it in this till quite clean ; afterwards rinse it in the water the rice was boiled in, and this will answer the end of starch, and no dew will affect it as it will be stiff while it is worn. If a gown, it must be taken to pieces, and when dried, hang it as smooth as possible ; after dry, rub it with a sleek stone but use no iron.

255. *To cause a stone to be in perpetual motion.*—Put small filings of iron into aquafortis, let them remain there until the water takes off the iron requisite, which it will

do in seven or eight hours. Then take the water and put it into a phial an inch wide, with a large mouth, and put in a stone of lapis calaminaries, and stop it close; the stone will then keep in perpetual motion.

256. *To gild the edges of writing paper, or leaves of books.*---Screw a quantity of pages strongly into a press after being cut as smooth as possible. Size them with isinglass glue, mixed up with spirits of wine, and then apply the gold leaves when the size arrives at a proper degree of thickness.

257. *To silver the backs of looking glasses.*---Take a sheet of tin foil, and spread it upon a table, then rub mercury upon it with a hare's foot till the two metals incorporate. Lay the plate of glass upon it, and load it with weights, which will have the effect of pressing out the excess of mercury, that was applied to the tin foil. In a few hours the tin foil will adhere to the glass and convert it into a mirror. About two ounces of mercury are sufficient for covering three feet of square glass.

258. *Method of rendering glass less brittle.*---Let the glass vessel be put into a vessel of cold water, and let this water be heated boiling hot, and then allowed to cool slowly by itself, without taking out the glass. Glasses treated in this way may, while cold, be suddenly filled with hot water, without any risk of their cracking. If the glasses are to be exposed to a higher temperature than that of boiling water, boil them in oil.

259. *New dye.*---A chemist of Copenhagen has discovered a means of producing a lively yellow colour for dying cloth. He gathers the tops of the potatoes when ready to flower, presses the juice, mixes it with water, and suffers the cloth to remain it twenty four hours. He then dips it in spring water. The cloth may be either of wool, silk, cotton or flax. By plunging the cloth thus tinged with yellow, into a vessel of blue, a brilliant and lasting green is obtained.

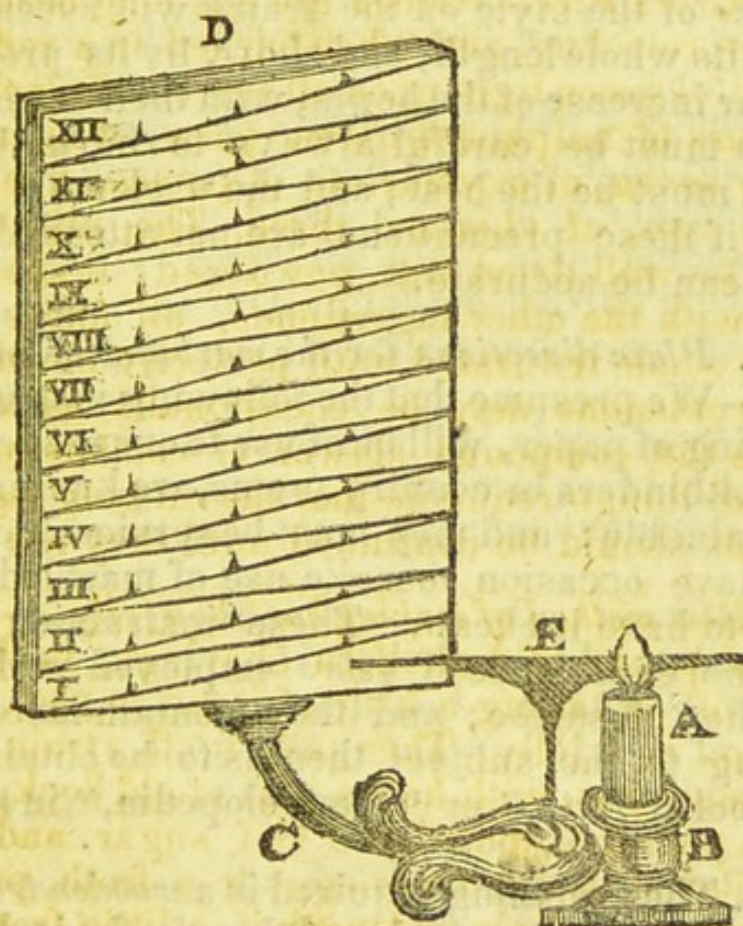
260 *Red fire of the Theatres.*---The beautiful red fire, which is now so frequently used in the theatres, is composed of the following ingredients: forty parts of dry ni-

trate of strontian, thirteen parts of finely powdered sulphur, five parts of chlorate of potash, and four parts of sulphuret of antimony. The chlorate of potash, and sulphuret of antimony, should be powdered separately in a mortar, and then mixed together on paper, after which they may be added to the other ingredients, previously powdered and mixed.

261. *Green Fire.*—Green fire has long been a desideratum in pyrotechny, and when burned in a reflector, sheds a beautiful green light upon all surrounding objects. Take of flowers of sulphur thirteen parts, of nitrate of baryta seventy seven, of oxymuriate of potassa five, of metallic arsenic two, of charcoal three. The nitrate of baryta should be well dried and powdered: it should then be mixed with the other ingredients, all finely pulverised, and the whole triturated until perfectly blended together. A little calamine may be occasionally added, in order to make the compound slower of combustion; and it is above all things requisite that the rubbing together of the materials should be continued until they are mixed.

262. *Best method of making hartshorn jelly.*—Boil a quarter of a pound of hartshorn shavings, in three pints of water, till on taking a little of it out to cool, it hangs on the spoon as a jelly. Then take it off, strain it while hot into a saucepan, with half a pint of old hock, and a quarter of a pound of powdered loaf sugar, and beating up the whites of two or three eggs to a froth, put it into the jelly; stir the whole and pour it a little from one vessel to another, that it may the more perfectly unite. Let it now boil two or three minutes, and then put in the juice of one large lemon, and, boiling it up a minute or two longer, when it will be finely curdled, and of a pure white colour, place a good swanskin jelly bag over a pan or bason, and run it through three or four times, till it looks as clear as crystal. Put a clean china bason now beneath the bag; and having clean jelly glasses ready, half fill them from the bason as the jelly once more runs through; then throw some thin rind of lemon, and a little Seville orange-peel into the bason; and, when the jelly has all passed through, fill up the rest of the glasses, and the jelly will look of a fine amber colour. This is the best method, when required to be pecu-

liarily clear and delicate: but it may be done by merely boiling the rinds of a lemon and a China orange, at first, with the hartshorn shavings and water; adding the juice of both lemon and orange when the strained liquor is cold; then boiling the whole up with a quarter of a pound of sugar, and the frothed whites of eggs, without stirring; and straining it through a jelly bag into a pan, from which the glasses are at once filled with a spoon.



263. *The lamp chronometer.*—It represents a chamber-lamp, A, consisting of a cylindrical vessel made of tin, in the shape of a candle, and is to be filled with oil. This vessel should be about three inches high and one inch diameter, placed in a stand, B. The whole apparatus, of lamp and stand, can be purchased ready made, at any tin shop in London. To the stand B, is fixed the handle C, which supports the frame D, about twelve inches high, and four inches wide. This frame is to be covered with oiled paper and divided into twelve parts by horizontal lines, at the end of which are written the numbers for the hours one to

twelve, and between the horizontal lines and diagonals, divided into halves, quarters, &c.

On the handle C, and close to the glass, is fixed the style or hand, E

Now, as the distance of the style from the flame of the lamp is only half an inch, then, if the distance of the frame from the style be six inches, while the float that contains the light descends by the decrease of the oil, one inch, the shadow of the style on the frame will ascend 12 inches, being its whole length, and show, by its progression, the regular increase of the hours, with their several divisions.

You must be careful always to burn the same oil, which must be the best; and the wick must never vary in size; if these precautions are not attended to, the dial never can be accurate.

264. *Plain directions for the marbling of paper and book edges*—We presume that the following instructions for the marbling of paper, will be of use to our readers generally. To bookbinders in country towns, we know that they will be invaluable; and they must be serviceable to all others who have occasion to make use of marbled paper, and wish to have it cheap. These instructions are written from the experience of *years* employed in the operations that they describe; and they contain more information relating to the subject than is to be obtained from any “School of Arts,” or “Encyclopedia,” in the kingdom.

265. The first thing required is a *wooden trough*, made of inch deal, about one inch and threefourths in depth and half an inch in length and breadth larger than the sheets of paper there are to be marbled. This proportion between the size of the trough and paper should always be observed, to prevent waste of colour; of course, troughs of various sizes will be required, where paper of various sizes is to be marbled. The trough must be water-tight and the edges of the sides must be sloped or bevelled off on the outside, to prevent any drops of colour which may fall on them, from running back again and sullyng its contents.

266. *A skimmer* or clearing stick must be provided for each trough: this is a piece of wood, two inches and a

half wide, half an inch thick, and *as long* as the trough it belongs to *is wide* inside: the use will be explained hereafter.

267. *A stone and muller* of marble, or some other hard stone, the size according to the quantity of colour required to be ground. Also, a flexible knife, for gathering the colour together.

268. A dozen or two of small glazed *pipkins* to hold colours in. The pots being furnished with

269. *Brushes* made as follows:—Take a round stick about as thick as your finger, and cut a notch all round one end of it, next, take some bristles, four or five inches long, and place them evenly round the stick, at the notched end, letting them project one inch and three-fourths beyond the wood; cut away the ragged bristles, and tie up the brush firmly with fine cord.

The use of the notch round the end of the handle is to make the bristles spread out, when firmly tied up, so that the colour may be scattered about more abundantly.

270. *Rods* for drying the paper on when marbled, are better than lines: they should be round, at least the upper side should, and about an inch and a quarter in breadth and thickness. 12 rods 11 feet long will hang $3\frac{1}{2}$ quires of demy, or $4\frac{1}{2}$ quires of foolscap.

271. *Colours*: of these the following assortment: *Red* Vermillion, droplake, rose-pink, Venetian red, red ochre. *Blue*. Indigo blue, Prussian blue, verditer. *Orange*. Orange lead, orange orpiment.—*Black*. Ivory, blue black, *Yellow*. Dutch pink, yellow ochre, king's yellow, English pink.

272. With respect to grinding your colours, *observe the finer the colours are ground, the better and the cheaper will your work be*. First, your colours should be finely pounded, then mixed with water to the consistence of paste, and put in a colour pot with the knife. From the pot, the colour must be taken out a little at a time, and levigated very fine with pure water.

273. *Compound colours* are made by mixing the colours mentioned in the foregoing paragraph, in certain proportions. The following may be particularized: To make red colour, mix three parts of rose-pink, with one of vermillion. A finer red; Four parts of rose-pink, two parts of vermillion, and one part of droplake; for very fine work use droplake alone, but use it sparingly, for it is a dear article. Yellow. Two parts of Dutch pink. and one part each of King's yellow and English pink. Green: made by mixing blue and yellow. Dark blue: Indigo; which may be made lighter by the addition of verditer. Orange brown: Two parts of Venetian red, and one part of orange lead. Fine orange: Put some yellow ochre in a ladle over a fire, and keep it there till it assumes a dark red colour. Take of this red ochre (finely pounded) and of Venetian red equal quantities, and add a little orange orpiment or rose-pink, mix altogether. Umber colour: Equal quantities of Venetian red and ivory black. Cinnamon colour: Venetian red with a little Prussian blue.

All other colours can be made by mixing together those already described, as experience will dictate.

274. In addition to the articles already mentioned, obtain the following: a bottle of ox-gall, a bottle of good oil of turpentine, and some pure water.

275. Supposing you to be provided with the materials for marbling, the next thing is to shew you how to set about the operation. In the first place, the trough, already described, must be filled (at least to the eighth of the top) with a solution of gum tragacanth, which is to be prepared as follows: gum of a pale white, semi-transparent appearance, (gum of a pure white or of a brownish colour is often bad) is to be soaked in water for at least forty-eight hours, in the proportion of half a pound to a gallon and half; this should make a gum water as thick as that used in miniature painting. Pass this solution through a hair sieve or linen cloth, and pour it into the trough. In all cases when the trough is to be used, the solution should be stirred with a few quills, and the surface of it cleared from film, &c. by the skimmer described in receipt 266.

276. *Colours intended to represent veins.*—are made by adding a small quantity of gall to the colours, and stirring each up well with a brush, in order that they may be properly mixed. Previous to use, these mixtures of colour and gall are to be thinned with water to the consistence of cream, and are to be well stirred up.

277. *Colours for making spots like lace-work.*—Take some dark blue, or other colour, add some gall to it, and about as much, or a little less, oil of turpentine; stir all well together, and dilute with water.

278. Your trough being prepared, and your colours all at hand, it will now be proper to try if the latter are in a proper state. To do this, throw on the solution, by shaking the various colour brushes over it, some spots of colour. If the spots spread out larger than a crown piece in size, the colours have too much gall: if the spots, after spreading out a little, contract again, there is too little gall in them. In the one case more colour must be added, in the other, more gall.

279. If the colours are in good order, and paper is to be marbled, the whole surface of the solution in the trough must be covered by colours, in spots, streaks, or curls, according to the pattern required, and laid on according to directions which will be given presently. The paper should be previously prepared for receiving the colours, by dipping it over night in water, and laying the sheets on each other, with a weight over them. The sheet of paper must be held by two corners, and laid in the most gentle and even manner on the solution covered with the colours, and there softly pressed with the hand that it may bear every where on the solution; after which it must be raised and taken off with the same care, and then hung to dry over the rods,

280. The following directions will serve to show how the various patterns are made.—1. Throw on red till the solution is nearly covered, then some yellow, black, and green. You may add if you please a little purple with plenty of gall and water in it; you may twist the colours into any shape you choose by means of a quill.—2. Throw on red, yellow, black and green, as before; but for a last

colour, add some of the dark blue mixed with turpentine. 3. Throw on red, yellow, black and green, in the proportion that you choose; then with a quill draw lines through the colours; after which throw on a greater or less quantity of blue, green, pink or purple, much diluted, and containing plenty of gall or turpentine.—4. Throw on very fine red for veins: then plenty of the turpentine blue. If your colours are good this produces a handsome pattern in a short time.—5. Throw on some dark blue mixed with turpentine, and take this up with a paper previously stained of yellow, light blue, red, pink or green colour. To obtain a good green for this purpose, boil French berries in water, add a little spirit or liquid blue, and carefully brush over the paper (which must be good and well sized) with this mixture.

281. A few general and recapitulary observations may not be useless. Let your materials be of the best quality. Grind your colours finely, and keep them clean. When your colours are too thick for use, add fresh ground colour with water and a little gall to them, and stir them up well. Be particular in getting good turpentine. When the gum gets dirtied throw it away and make a fresh one.

282. The neatest and most convenient method of marbling, the edges of books, is to dip one volume at a time, doing the ends first, throwing back the boards to do the fore edge; and hold the book tight with both hands and not to dip deeper than the surface, to prevent the solution from spoiling the book. It is the safest way to tie the book between boards before dipping. For the sake of convenience and economy, when only a few books are to be marbled, a small trough should be used.

283. Marbled paper is glazed by a machine similar to that with which cottons are glazed, a sight of which may be obtained at any calenderers, but a machine of this kind would only be required by such as might marble very largely. Book edges are polished by the agate burnisher, and so might small pieces of paper be polished, which were required for any particular purpose. Good common pressing, or at most hot-pressing, might serve instead of glazing. For any fancy work it would have a fine effect

to varnish the marble paper after it had been put to its destined purpose and had become dry. Paste and moisture it is well known chase all the glaze away. The application of a coat of varnish subsequent to the application of paste would double the beauty of the best marble paper made, and much improve the common kind, at a trifling expence.

TINCTURES, &c.

284. *Aromatic tincture*.—Infuse two ounces of Jamaica pepper, in two pints of brandy, without heat, for a few days, then strain off the tincture.

This simple tincture will answer the intentions of the more costly preparations of this kind. It is rather too hot to be taken by itself; but it is proper for mixing with such medicines as might prove too cold for the stomach.

285. *Compound tincture of bark*.—Take of Peruvian bark two ounces: Seville orange peel and cinnamon, of each half an ounce. Let the bark be powdered, and the ingredients bruised; then infuse the whole in a pint and a half of brandy, for five or six days, in a close vessel; afterwards strain off the tincture.

This tincture is not only beneficial in intermitting fevers, but also in slow, nervous, and putrid kinds, especially towards their decline.

The dose is from one drachm to three or four, every fifth or sixth hour. It may be given in any liquor, and sharpened with a few drops of the spirit of vitriol.

286. *Volatile fœtid tincture*.—Infuse two ounces of assa-fœtida in one pint of volatile aromatic spirit for eight days in a close bottle, frequently shaking it; then strain the tincture.

This medicine is very beneficial in hysteric disorders, especially when attended with lowness of spirits, and faintings. A tea spoonful may be taken in a glass of wine or a cup of pennyroyal tea.

287. *Volatile tincture of gum guaiacum.*—Take of gum guaiacum, four ounces; volatile aromatic spirit, a pint. Infuse them without heat, in a vessel well stopped, for a few days; then strain off the tincture.

In rheumatic complaints, a tea-spoonful of this tincture may be taken in a cup of the infusion of water-trefoil, twice or thrice a day.

288. *Tincture of black hellebore.*—Infuse two ounces of the root of black hellebore, bruised, in a pint of proof spirit, for seven or eight days; then filter the tincture through paper,. A scruple of cochineal may be infused along with the roots, to give the tincture a colour,

In obstructions of the menses, a teaspoonful of this tincture may be taken in a cup of pennyroyal or camomile tea twice a day.

289. *Astringent tincture.*—Digest two ounces of gum kino in a pint and a half of brandy, for eight days; afterwards strain it for use.

This tincture though not generally known, is a good astringent medicine. With this view, an ounce, or more, of it may be taken three or four times a day.

290. *Tincture of myrrh and aloes.*—Take of gum myrrh an ounce and a half: hepatic aloes, one ounce. Let them be reduced to a powder, and infused in two pints of rectified spirits for six days, then strain the tincture.

This is principally used by surgeons for cleansing foul ulcers, and restrain the progress of gangrenes. By some recommended as a proper application to green wounds.

291. *Tincture of opium.*—Take of crude opium; two ounces; spirituous aromatic water and mountain wine, of each ten ounces. Dissolve the opium, sliced, in the wine with a gentle heat, frequently stirring it; afterwards add the spirit, and strain off the tincture.

As twenty-five drops of this tincture contain a grain of opium, the common dose may be from 20 to 30 drops.

292. *Tincture of hiera picra.*—Take of succotrine aloes in powder, one ounce; virginian snake root and ginger,

of each two drachms. Infuse in a pint of mountain wine and half a pint of brandy, for a week, frequently shaking the bottle: then strain off the tincture.

293. *Compound tincture of senna*.—Take of senna, one ounce; jalap, coriander seeds, and cream of tartar, of each half an ounce. Infuse them in a pint and a half of French brandy for a week; then strain the tincture, and add to it four ounces of fine sugar.

This is an agreeable purge, and answers all the purposes of the Elixir Salutis, and of Daffy's Elixir.

The dose is from one to two or three ounces.

294. *Tincture of Spanish flies*.—Take of Spanish flies, reduced to a fine powder, two ounces; spirit of wine one pint. Infuse for two or three days; then strain off the tincture.

This is intended as an acid stimulant for external use. Parts affected with the palsy, or chronic rheumatism may be frequently rubbed with it.

295. *Tincture of the balsam of Tolu*.—Take of the balsam of Tolu, an ounce and a half; rectified spirit of wine, a pint. Infuse in a gentle heat until the balsam is dissolved; then strain the tincture.

This tincture possesses all the virtues of the balsam. In coughs, and other complaints of the breast, a tea-spoonful or two of it may be taken on a bit of loaf sugar. But the best way of using it is in the syrup. An ounce of the tincture properly mixed with two pounds of simple syrup will make what is commonly called the balsamic syrup.

296. *Tincture of rhubarb*.—Take of rhubarb two ounces, and a half; lesser cardamom seeds, half an ounce; brandy, two pints, Digest for a week, and strain the tincture.

Those who choose to have a vinous tincture of rhubarb may infuse the above ingredients in a bottle of Lisbon wine, adding to it about two ounces of proof spirits.

If an ounce of gentian root, and a drachm of Virginian snakeroot, be added to the above ingredients, it will make the bitter tincture of rhubarb.

All these tinctures are designed as stomachics and corroborants as well as purgatives. In weakness of the stomach, indigestion, laxity of the intestines, fluxes, cholicky and other complaints, they are frequently of great service. The dose is from half a spoonful to three or four spoonfuls or more, according to the circumstances of the patient, and the purposes it is intended to answer.

297. *Paragoric elixir*.—Take of flowers of benzoin half an ounce; opium two drachms. Infuse in one pound of the volatile aromatic spirit, four or five days, frequently shaking the bottle; afterwards strain the elixir.

This is an agreeable and safe way of administering opium. It eases pain, allays tickling coughs, relieves difficult breathing, and is useful in many disorders of children, particularly the whooping cough.

The dose to an adult is from fifty to sixty drops.

298. *Acid elixir of vitriol*.—Take of the aromatic tincture one pint; oil of vitriol, three ounces. Mix them gradually, and after the fœces have subsided, filter the elixir through paper, in a glass funnel.

This is one of the best medicines that I know for hysteric and hypochondriac patients, afflicted with flatulencies, arising from relaxation of the stomach and intestines.

It will succeed where the most celebrated stomachic bitters have no effect. The dose is from ten to forty drops in a glass of wine or water, or a cup of bitter infusion, twice or thrice a day. It should be taken when the stomach is most empty.

299. *Camphorated spirit of wine*.—Dissolve an ounce of camphor in a pint of rectified spirits. This solution is employed as an embrocation in bruises, palsies, the chronic rheumatism, and for preventing gangrenes.

The above quantity of camphor, dissolved in half a pound of the aromatic spirit, makes Ward's Essence.

300. *Spirit of mindererus*.—Take of volatile sal ammoniac, any quantity. Pour on it, gradually, distilled vinegar, till the effervescence ceases.

This medicine is useful in promoting a discharge by

the skin and urinary passages. It is also a good external application in strains and bruises.

When intended to raise a sweat, half an ounce of it, in a cup of warm gruel, may be given to the patient in bed every hour till it has the desired effect.

301. *Diuretic mixture*.—Take of mint-water, five ounces; vinegar of squills, six drachms; sweet spirit of nitre, half an ounce; syrup of ginger, an ounce and a half. Mix them

In obstructions of the urinary passages, two spoonfuls of this mixture may be taken twice or thrice a day.

302. *Laxative absorbent mixture*.—Rub one drachm of magnesia alba in a mortar, with ten or twelve grains of the best Turkey rhubarb, and add to them three ounces of common water, simple cinnamon water, and syrup of sugar, of each one ounce.

As most diseases of infants are accompanied with acidities, this mixture may either be given with a view to correct these, or to open the body. A table-spoonful may be taken for a dose, and repeated three times a-day. To a very young child, half a spoonful will be sufficient.

When the mixture is intended to purge, the dose may either be increased, or the quantity of rhubarb doubled.

This is one of the most generally useful medicines for children with which I am acquainted.

303. *Saline mixture*.—Dissolve a drachm of the salt of tartar in four ounces of boiling water; and, when cold, drop into it spirit of vitrol till the effervescence ceases; then add, of peppermint-water, two ounces; simple syrup, one ounce.

304. *Squill mixture*.—Take of simple cinnamon-water, five ounces; vinegar of squills one ounce; syrup of marsh-mallows an ounce and a half. Mix them.

This mixture, by promoting expectoration, and the secretion of urine, proves serviceable in asthmatic and dropsical habits. A table-spoonful of it may be taken frequently.

OINTMENTS, LINAMENTS, AND CERATES.

Notwithstanding the extravagant encomiums which have been bestowed on different preparations of this kind, with regard to their efficacy in the cure of wounds, sores, &c. it is beyond a doubt, that the most proper application to a green wound is dry lint. But though ointments do not heal wounds and sores, yet they serve to defend them from the external air, and to retain such substances as may be necessary for drying, deterging, destroying proud flesh, and such like. For these purposes, however, it will be sufficient to insert only a few of the most simple forms, as ingredients of more active nature can occasionally be added to them,

305.—*Yellow basilicum*.—Take of yellow wax, white resin and frankincense, each a quarter of a pound; melt them together over a gentle fire; then add, of hog's lard prepared, one pound. Strain the ointment while warm.

This ointment is employed for cleansing and healing wounds and ulcers.

306. *Emollient ointment*.—Take of palm oil, two pounds; olive oil, a pint and a half; yellow wax, half a pound; Venice turpentine a quarter of a pound. Melt the wax in the oils over a gentle fire, then mix in the turpentine, and strain the ointment:

This supplies the place of *Althæa ointment*. It may be used for anointing inflamed parts, &c.

307. *Eye ointment*.—Take of hog's lard prepared, four ounces; white wax, two drachms; tutty prepared, one ounce; melt the wax with the lard over a gentle fire, and then sprinkle in the tutty, continually stirring them till the ointment is cold.

This ointment will be more efficacious, and of a better consistence, if two or three drachms of camphor be rubbed up with a little oil, and intimately mixed with it.

308. *Another*.—Take of camphor, and calamine-stone levigated, each six drachms; verdigrise, two drachms; hogs' lard, and mutton-suet, prepared of each two ounces. Rub the camphor well with the powder; afterwards

mix in the lard and suet, continuing the triture till they be perfectly united.

This ointment has been long in esteem for diseases of the eyes. It ought, however, to be used with caution, when the eyes are much inflamed or very tender.

309. *Issue ointment*.—Mix half an ounce of Spanish flies, finely powered, in six ounces of yellow basilicum ointment. This ointment is chiefly intended for dressing blisters, in order to keep them open during pleasure.

310. *Ointment of lead*.—Take of olive oil, half a pint; white wax, two ounces; sugar of lead, three drachms. Let the sugar of lead, reduced into a fine powder, be rubbed with some part of the oil, and afterwards added to the other ingredients, previously melted together, continually stirring them till quite cold.

This cooling and gently astringent ointment may be used in all cases where the intention is to dry the skin over the part, as in scalding, &c.

311. *Mercurial ointment*.—Take of quicksilver two ounces; hogs' lard, three ounces; mutton suet, one ounce. Rub the quicksilver with an ounce of the hogs' lard in a warm mortar, till the globules be perfectly extinguished; then rub it up with the rest of the lard and suet, previously melted together.

The principal intention of this ointment is, to convey mercury into the body, by being rubbed upon the skin.

312. *Sulphur ointment*.—Take of hogs' lard prepared, four ounces; flour of sulphur, an ounce and a half; crude sal ammoniac, two drachms; essence of lemon, ten or twelve drops. Make them into an ointment.

This ointment, rubbed upon the parts affected, will generally cure the itch. It is both the safest and best application for that purpose, and, when made in this way, has no disagreeable smell.

313. *White or spermaceti ointment*.—Take of olive oil, one pint; white wax and spermaceti, of each three ounces.

Melt them with a gentle heat, and keep them constantly and briskly stirring together, till quite cold.

If two drachms of champhor, previously rubbed with a small quantity of oil, be added to the above, it will make the *white camphorated ointment*.

314. *Liniment for burns*.—Take equal parts of Florence oil, or fresh drawn linseed oil, and lime-water; shake them well together in a wide bottle so as to form a liniment.

This is found to be an exceeding proper application for recent scalds or burns. It may either be spread upon a cloth or the parts affected may be annointed with it twice or thrice a-day.

315. *White liniment*.—This is made in the same manner as the white ointment, two thirds of the wax being left out.

This liniment, may be applied in cases of excoriation, where on account of the largeness of the surface, the ointments with lead or calamine might be improper.

316. *Liniment for the piles*.—Take of emollient ointment, two ounces; liquid laudanum, half an ounce. Mix these ingredients with the yolk of an egg, and work them well together.

317. *Volatile liniment*.—Take of Florence oil, an ounce; spirits of hartshorn, half an ounce. Shake them well together.

This liniment, made with equal parts of spirit and oil, will be more efficacious, where the patient's skin is able to bear it.

Sir John Pringle observes, that in the inflammatory quinsey, a piece of flannel, moistened with his liniment, and applied to the throat, to be renewed every four or five hours, is one of the most efficacious remedies; and that is seldom fails, after bleeding, either to lessen or carry off the complaint. The truth of this observation I have often experienced.

318. *Camphorated oil*.—Rub an ounce of camphor, with

two ounces of Florence oil, in a mortar, till the camphor be entirely dissolved.

This antispasmodic liniment may be used in obstinate rheumatisms, and in some other cases accompanied with extreme pain and tension of the parts.

PILLS.

Medicines which operate in a small dose, and whose disagreeable taste or smell makes it necessary that they should be concealed from the palate, are most commonly exhibited in this form. No medicine, however, that is intended to operate immediately, ought to be made into pills, as they often lie a considerable time on the stomach before they are dissolved so as to produce any considerable effect.

As the ingredients which enter the composition of pills are generally so contrived, that one pill of an ordinary size may contain about five grains of the compound, in mentioning the dose we shall only specify the number of pills to be taken: as one, two, three, &c.

319. *Composing pill*.—Take of purified opium ten grains; Castile soap half a drachm. Beat them together, and form the whole into twenty pills.

When a quieting draught will not sit on the stomach, one, two, or three, of these pills may be taken, as occasion requires,

320. *Fæted pill*.—Take of assafoetida half an ounce, simple syrup, as much as is necessary to form it into pills.

In hysteric complaints, four or five pills of an ordinary size may be taken twice a-day; they may likewise be of service to persons afflicted with the asthma.

When it is necessary to keep the body open, a proper quantity of rhubarb, aloes, or jalap, may occasionally be added to the above mass.

321. *Hemlock pill*.—Take any quantity of the extract of hemlock, and add to it about a fifth part of its weight

of the powder of the dried leaves, form it into pills of the ordinary size.

The extract of hemlock may be taken from one grain to several drachms in the day. The best method, however, of using these pills is, to begin with one or two, and to increase the dose gradually, as far as the patient can bear them, without any remarkable degree of stupor or giddiness.

322. Mercurial pills.—Take of purified quicksilver and honey, each half an ounce. Rub them together in a mortar till the globules of mercury are perfectly extinguished; then add, of Castile soap, two drachms; powdered liquorice, or crumb of bread, a sufficient quantity to give the mass a proper consistence for pills.

When stronger mercurial pills are wanted the quantity of quicksilver may be doubled.

The dose of these pills are different, according to the intention with which they are given. As an alterative, two or three may be daily taken. To rise a salivation, four or five will be necessary.

Equal parts of the above pill and powdered rhubarb, made into a mass, with a sufficient quantity of simple syrup, will make a *mercurial purging pill*.

323. Mercurial sublimate pill.—Dissolve fifteen grains of the corrosive sublimate of mercury in two drachms of the saturated solution of crude sal ammoniac, and make it into a paste, in a glass mortar, with a sufficient quantity of the crumb of bread. This mass must be formed into one hundred and twenty pills.

This pill, which is the most agreeable form of exhibiting sublimate, has been found efficacious, not only in curing the venereal disease, but also in killing and expelling worms, after other powerful medicines had failed. For the venereal disease, four of these pills may be taken twice-a-day; as an alterant, three; and for worms, three.

324. Purging pills.—Take of succotrine aloes, and Castile soap, each two drachms; simple syrup, a sufficient quantity to make them into pills.

Four or five of these pills will generally prove a suffi-

ent purge. For keeping the body gently open, one may be taken night and morning. They are reckoned both deobstruent and stomachic, and will be found to answer all the purposes of Dr. Anderson's pills, the principal ingredient of which is aloes.

Where aloetic purges are improper, the following pills may be used :

Take extract of jalap, and vitriolated tartar, of each two drachms; syrup of ginger, as much as will make them of a proper consistence for pills.

These pills may be taken in the same quantity as the above.

325. *Pills for the jaundice.*—Take of Castile soap, succotrine aloes, and rhubarb, of each one drachm. Make them into pills, with a sufficient quantity of syrup mucilage.

These pills, as their title express, are chiefly intended for the jaundice, which, with the assistance of proper diet, they will often cure. Five or six of them may be taken twice a day, more or less, as may be necessary to keep the body open. It will be proper, however, during their use, to interpose now and then a vomit of impecacuanha, or tartar emetic.

326. *Stomachic pills.*—Take extract of gentian, two drachms; powdered rhubarb, and vitriolated tartar, of each one drachm; oil of mint, thirty drops; syrup, a sufficient quantity.

Three or four of these pills may be taken twice a-day, for invigorating the stomach, and keeping the body gently open.

327. *Squill pills.*—Take powder of squills a drachm and a half; gum ammoniac, and cardamom-seeds, in powder, of each three drachms; simple syrup, a sufficient quantity.

In dropsical and asthmatic complaints, two or three of these pills may be taken twice a day, or oftener, if the stomach will bear it.

328. *Strengthening pills.*—Take soft extract of bark, and salt of steel, each a drachm. Make into pills.

In disorders raising from excessive debility, or relaxation of the solids, as the *chlorosis*, or green-sickness, two of these pills may be taken three times a-day.

PLASTERS.

Plasters ought to be of a different consistence, according to the purposes for which they are intended. Such as are to be applied to the breasts or stomach, ought to be soft and yielding; while those designed for the limbs should be firm and adhesive.

It has been supposed, that plasters might be impregnated with the virtues of different vegetables, by boiling the recent vegetables with the oil employed for the compositions of the plaster: but this treatment does not communicate to the oils any valuable quality.

The *calces* of lead, boiled with oils, unite with them into a plaster of proper consistence, which make the basis of several other plasters. In boiling these compositions, a quantity of hot water must be added from time to time, to prevent the plaster from burning or growing black. This should be done with care, lest it cause the matter to explode.

329. *Common plaster*.—Take of common olive-oil, six pints; litharge, reduced to a powder, two pounds and a half. Boil the litharge and oil together over a slow fire, continually stirring them, and keeping always half a gallon of water in the vessel; after they have boiled three hours, a little of the plaster may be taken out, and put into cold water, to try if it be of a proper consistence: when that is the case, let it cool, and the water can be pressed out of it with the hands.

This plaster is generally applied in slight wounds and excorations of the skin: it keeps the part warm, and defends it from the air, which is all that is necessary in such cases. Its principle use is to serve as a basis for other plasters.

330. *Adhesive plaster*.—Take of common plaster, half a pound; of Burgundy pitch, a quarter of a pound. Melt them together.

This plaster is principally used for keeping on other dressings.

331. *Anodyne plaster*.—Melt an ounce of adhesive plaster, and when it is cooling, mix it with a drachm of powdered opium, and the same quantity of camphor, previously rubbed up with a little oil.

This plaster generally gives ease in acute pains of the nervous kind.

332. *Blistering plaster*.—Take of Venice turpentine, six ounces; yellow wax, two ounces; Spanish flies, in fine powder, three ounces; powdered mustard, one ounce. Melt the wax, and while warm, add to it the turpentine, taking care not to evaporate it by too much heat. After the turpentine and wax are sufficiently incorporated, put in the powders: keep stirring the mass till it is cold.

Though this plaster is made in a variety of ways, one seldom meets with it of a proper consistence. When compounded with oils and other greasy substances, its effects are blunted, and is apt to run; while pitch and resin render it too hard, and very inconvenient.

When the blistering plaster is not at hand, its place may be supplied by mixing with any soft ointment a sufficient quantity of powdered flies; or by forming them into a paste with flour and vinegar.

333. *Gum plaster*.—Take of the common plaster, four pounds; gum ammoniac and galbanum, strained, of each half a pound. Melt them together, and add, of Venice turpentine, six ounces.

This plaster is used as a digestive, and likewise for discussing indolent tumours.

334. *Mercurial plasters*.—Take of common plaster, one pound; of gum ammoniac strained, half a pound. Melt them together, and when cooling, add eight ounces of quicksilver, previously extinguished by triture, with three ounces of hogs' lard.

This plaster is recommended in pains of the limbs arising from a venereal cause. Indurations of the glands, are likewise found to yield to it.

335. *Stomach plaster*.—Take of gum plaster, half a pound; camphorated oil, an ounce and a half; black pep-

per or capsicum, where it can be had, one ounce. Melt the plaster, and mix with it the oil; then sprinkle in the pepper, previously reduced to a fine powder.

An ounce or two of this plaster spread upon soft leather, and applied to the region of the stomach, will be of service in flatulencies arising from hysteric and hypochondriac affections. A little of the expressed oil of mace, or a few drops of the essential oil of mint, may be rubbed upon it before it is applied.

This may supply the place of the *antihysteric plaster*.

336. Warm plaster.—Take of gum plaster, one ounce; blistering plaster, two drachms; melt them over a gentle fire.

This plaster is useful in the sciatica, and the other fixed pains of the rheumatic kind: it ought to be worn for some time, and to be renewed at least once a-week. If this is found to blister the part, which is sometimes the case, it must be made with a smaller proportion of the blistering plaster.

337. Wax plaster.—Take of yellow wax, one pound; white resin, half a pound; mutton suet, three quarters of a pound. Melt them together.

This is used instead of the *melilot plaster*. It is a proper application after blisters, and in cases where a gentle digestive is necessary.

POWDERS.

This is one of the most simple forms in which medicine can be administered. Many medicinal substances cannot be reduced into powder, and others are too disagreeable to be taken in this form.

The lighter powders may be mixed in any agreeable thin liquor, as tea, or water gruel. The more ponderous will require a more consistent vehicle, as syrup, conserve, jelly, or honey.

Gums and other substances, which are difficult to powder, should be pounded along with the drier ones; but those which are too dry, ought to be sprinkled, during their pulverization, with a few drops of any water.

Aromatic powders are to be prepared only in small quantities at a time, and kept in glass vessels closely stopped. No powders ought to be exposed to the air, or kept too long, otherwise their virtues will be, in a great measure, destroyed.

338. *Astringent powder*.—Take of alum, and Japan earth, each two drachms. Pound them together, and divide the whole into ten or twelve doses.

In an immoderate flow of the menses, and other hæmorrhages, one of these powders may be taken every hour, or every half hour, if the discharge be violent.

339. *Powder of bole*.—Take of bole armenic, or French bole, two ounces; cinnamon one ounce; tormentil root and gum arabic, of each six drachms; long pepper, one drachm. Let these ingredients be reduced to a powder.

This warm glutinous astringent powder is given in fluxes, and in disorders where medicines of that class are necessary, in the dose of a scruple, or half a drachm.

If a drachm of opium be added, it will make the *powder of bole with opium*, which is a medicine of great efficacy. It may be taken in the same quantity as the former, but not above twice or thrice a day.

340. *Carminative powder*.—Take of coriander-seeds, half an ounce; ginger, one drachm; nutmegs, half a drachm; fine sugar, a drachm and a half; reduce them into powder for twelve doses.

This powder is employed for expelling flatulencies arising from indigestion, particularly those to which hysteric and hypochondriac persons are so liable. It may be given in small quantities to children in their food, when troubled with gripes.

341. *Diuretic powder*.—Take of gum arabic, four ounces; purified nitre, one ounce: pound them together, and divide the whole into twenty-four doses.

During the first stages of the venereal disease, one of these cooling powders may be taken three times a-day, with considerable advantage.

342. *Aromatic opening powder*.—Take of the best Turkey rhubarb, cinnamon, and fine sugar, of each two drachms. Let the ingredients be pounded, and mixed well together.

When flatulence is accompanied with costiveness, a tea-spoonful of this powder may be taken once or twice a-day, according to circumstances.

343. *Saline laxative powder*.—Take of soluble tartar and cream of tartar, of each one drachm; purified nitre, half a drachm. Make them into a powder.

In fevers, and other inflammatory disorders where it is necessary to keep the body open, one of these cooling laxative powders may be taken in a little gruel, and repeated occasionally.

344. *Steel powder*.—Take filings of steel, and loaf-sugar, of each two ounces; ginger two drachms. Pound them together.

In obstructions of the *menses*, and other cases where steel is proper, a tea-spoonful of this powder may be taken twice a day, and washed down with a little wine.

345. *Sudorific powder*.—Take purified nitre and vitriolated tartar, of each half an ounce; opium, and ipecacuanha, of each one drachm. Mix the ingredients, and reduce them to a fine powder.

This is generally known by the name of *Dover's powder*. It is a powerful sudorific. In rheumatisms, and other cases where it is necessary to excite a copious sweat, this powder may be administered in the dose of a scruple or half a drachm. Some patients require two scruples. It ought to be accompanied with the plentiful use of some warm diluting liquor.

346. *Worm powder*.—Take of tin, reduced to a powder, an ounce; Ethiop's mineral, two drachms. Mix them together, and divide the whole into six doses.

One of these powders may be taken in a little syrup, honey, or treacle, twice a day. After they have been all used, the following purge may be proper.

347. *Purging worm powder.*—Take of powdered rhubarb, a scruple; scammony and calomel, of each five grains. Rub them together in a mortar for one dose.

For children, the above dose must be lessened according to their age.

If the powder of tin be given alone, its dose may be considerably increased. The late Dr. Alston gave it two ounces in three days, and says, that it proved an egregious anthelmintic. He purged his patients before they took the powder, and afterwards.

348. *Powder for the tape worm.*—Early in the morning, the patient is to take, in any liquid, two or three drachms, according to his age or constitution, of the root of the malefern reduced into a fine powder. About two hours afterwards, he is to take of calomel, and resin of scammony, each ten grains; gum gamboge, six grains. These ingredients must be powdered, and given in a little syrup, honey, treacle, or any thing agreeable to the patient. He is then to walk gently about, now and then drinking a dish of green tea, till the worm is passed. If the powder of the fern produces sickness, it might be removed by sucking the juice of an orange or lemon.

This medicine, which has long been kept a secret abroad for the cure of the tape worm, was, some time ago, purchased by the French king, and made public for the benefit of mankind. Not having had an opportunity of trying, I can say nothing from experience concerning its efficacy. It seems to be an active medicine, and ought to be taken with care. The dose here prescribed, is sufficient for the strongest patient; it must be reduced according to the age and constitution.

VINEGARS.

Vinegar is an acid produced from various liquors by a second fermentation. It is a useful medicine both in in-

inflammatory and putrid disorders. Its effects are to cool the blood, quench thirst, counteract a tendency to putrefaction, and allay inordinate motions of the system. It likewise promotes the natural secretions, and, in some cases, excites a sweat, while the warm medicines, called alexipharmic, tend to prevent that salutary evacuation.

Weakness, faintings, vomitings, and other hysteric affections, are often relieved by vinegar applied to the mouth and nose, or received into the stomach. It is of excellent use in correcting poisonous substances, when taken into the stomach; and in promoting their expulsion, by the different emunctories, when received in the blood.

Vinegar is not only an useful medicine, but serves to extract 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. It also assists or coincides with the intention of squills, garlic, gum ammoniac, and several other valuable medicines.

The effects are not to be expected from every thing that is sold under the name of vinegar, but from such as is sound and well prepared.

The best vinegars are those prepared from French wines.

It is necessary, for some purposes, that the vinegar be distilled; but as this operation requires a particular chemical apparatus, we shall not insert it.

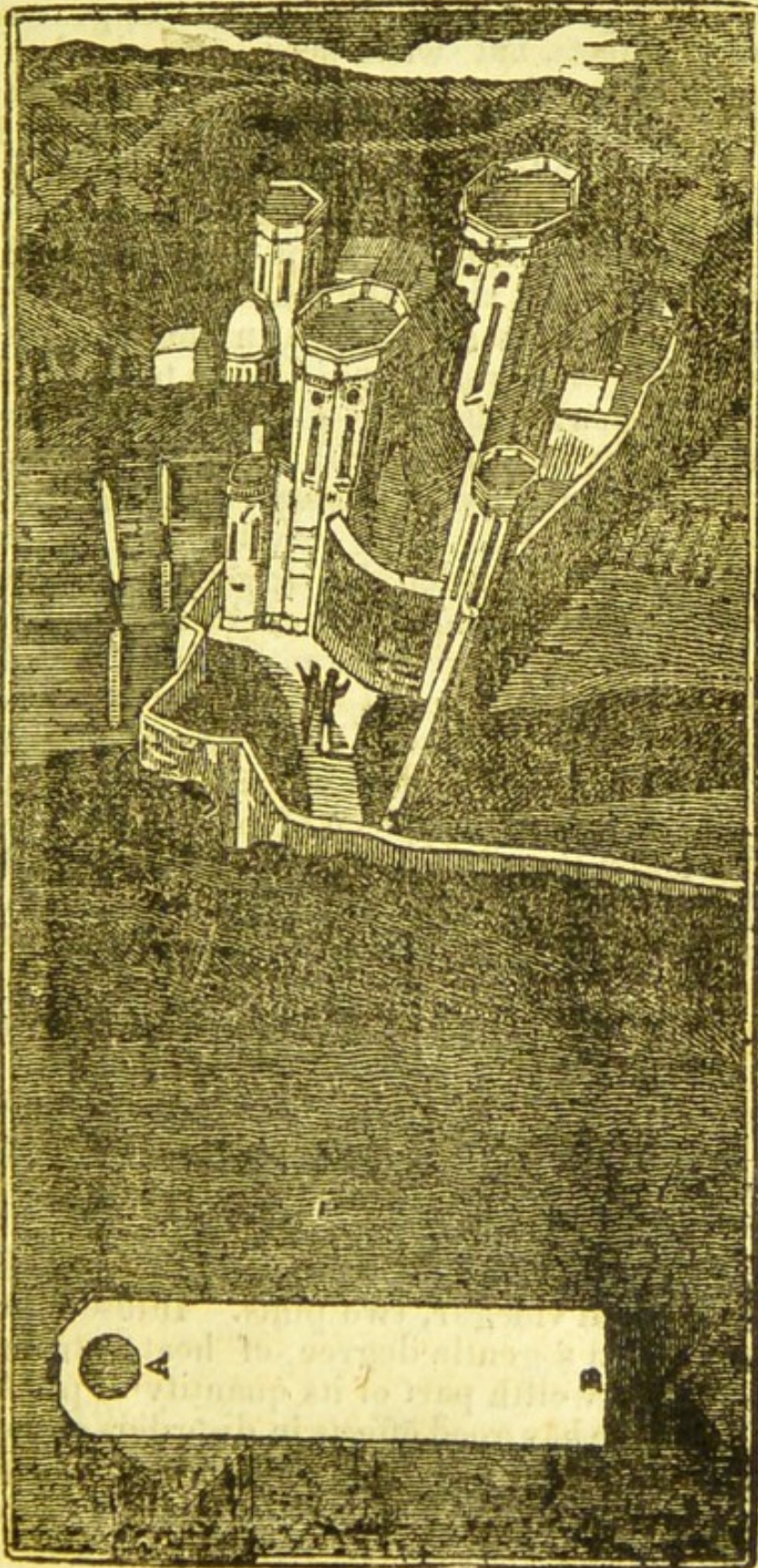
349. *Vinegar of litharge*.—Take of litharge, half a pound; strong vinegar, two pints. Infuse them together in a moderate heat for three days, frequently shaking the vessel; then filter the liquor for use.

This medicine is little used, from a notion of its being dangerous. There is reason to believe that the preparations of lead with vinegar are possessed of some valuable properties, and that they may be used in many cases with safety and success.

A preparation, of a similar nature with the above, has of late been extolled by Goulard, a French surgeon, as a safe medicine, which he calls the Extract of Saturn, and orders it to be made in the following manner:—Take of litharge, one pound; vinegar made of French wine, two pints. Put them together into a glazed earthen pipkin,

and let them boil, or rather simmer, for an hour and a quarter, taking care to stir them all the while, with a wooden spatula. After the whole has stood to settle, pour off the liquor which is upon the top of the bottles.

THE HORIZONTORIUM.



350. *The Horizontorium.*—The horizontorium, on which the sketch in the frontispiece is founded, is an ingenious recreation, which was introduced to the public about three years since, and is one of the most amusing deceptions ever witnessed. When viewed at any other but the correct point of sight, the designs appear a group of distorted objects, but when seen correctly, has all the appearance of reality. As the effect depends entirely upon placing the sight-piece, through which it is to be viewed, we have adopted a mode of describing it.—A piece of paper, or card (which is better) must be cut out, of the precise shape and height of the piece A B C; an aperture for the eye, about the size of a pea (A) must be made, precisely on the spot shewn in the sight-piece must be folded back at a right angle, so as to form a kind of foot to stand upon. The sight-piece must then be placed perpendicularly, exactly over the place D. Then keeping the paper perfectly horizontal, and placing the eye close to the aperture A, there may be seen a representation of a castle, surrounded by scenery. A little experience will give the image or model exactly; if not, the person who makes the trial has not placed the sight-piece correctly. The light ought to fall on the side of the figure opposite the shadow. If the representation of the sight piece A B C is found to interfere with the picture, it may be covered with a piece of paper. Especial care should be taken that the paper be perfectly smooth, as the slightest wrinkle will distort the figure materially. The eye must also be placed close to the sight hole.

351. *Vinegar of roses.*—Take of red roses, half a pound, strong vinegar, half a gallon. Infuse in a close vessel for several weeks, in the heat, and strain off the liquor.

This is principally used as an embrocation for headaches, &c.

352. *Vinegar of squills.*—Take of dried squills, two ounces; distilled vinegar, two pints. Infuse for ten days or a fortnight in a gentle degree of heat; strain off the liquor: add a twelfth part of its quantity of proof-spirit.

This medicine has good effects in disorders of the breast, occasioned by a load of viscid phlegm. It is also of use in hydropic cases, for promoting a discharge of urine.

The dose is from two drachms to two ounces, according to the intention for which it is given. When intended to act as a vomit, the dose ought to be large. In other cases, it must not only be exhibited in small doses, but mixed with cinnamon water, or some agreeable aromatic liquor, to prevent the nausea it might otherwise occasion.

SPIRITUOUS DISTILLED WATERS.

353. *Spirituous cinnamon water*.—Take of cinnamon bark one pound; proof spirit, and common water, each one gallon. Steep the cinnamon in the liquor for two days; then distill off one gallon.

454. *Spirituous Jamaica pepper water*.—Take of Jamaica pepper, half a pound; proof spirit, three gallons; water, two gallons. Distill off three gallons.

This is a sufficiently agreeable cordial, and may supply the place of the *Aromatic Water*.

WHEYS.

335. *Alum whey*.—Boil two drachms of powdered alum, in a pint of milk, till curdled: strain out the whey.

This whey is beneficial in an immoderate flow of the menses, and in a diabetes, or discharge of urine.

The dose is two, three, or four, ounces, according as the stomach will bear it, three times a day. If it should occasion vomiting, it may be diluted.

355. *Mustard whey*.—Take milk and water, of each a pint; bruised mustard seed, an ounce and a half. 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 the low state of nervous fevers, it will often supply the place of wine. It is also of use in the chronic rheumatism, palsy, dropsy, &c.

The addition of a little sugar will render it more agreeable.

The dose is a tea-cupful four or five times a day.

357. *Scorbutic whey*.—This whey is made by boiling half a pint of the scorbutic juices in a quart of cow's milk. More benefit, however, is to be expected from eating the plants, than from their expressed juices.

The scorbutic plants are, bitter oranges, brook lime, garden scurvy-grass, and water-cresses.

A number of other wheys may be prepared in the same manner, as orange-whey, cream of tartar-whey, &c. These are cooling pleasant drinks in fevers, and may be rendered cordial by the addition of wine.

WINES.

The effects of wine are, to raise the pulse, promote perspiration, warm the habit, and exhilarate the spirits. The red wines, besides these effects, have an astringent quality, by which they strengthen the tone of the stomach and intestines, and by this means prove serviceable in restraining immoderate secretions.

The thin sharp wines have a different tendency, They pass off freely by the different emunctories, and gently open the body. The effects of the full-bodied wines are much more durable than those of the thinner.

All sweet wines contain a glutinous substance, and do not pass off freely. Hence they will heat the body more than an equal quantity of any other wine, though it should contain fully as much spirit.

From the obvious qualities of wine, it must appear to be an excellent medicine. Indeed, to say the truth, it is worth all the rest put together.

But to answer this character, it must be sound and good. No benefit is to be expected from the common trash that is often sold by the name of wine, without possessing one drop of the juice of the grape. No medicine is more rarely obtained genuine than wine.

Wine is not only used as medicine, but is employed as

a menstruum for extracting the virtues of other medicinal substances; for which it is not ill adapted, being a compound of water, inflammable spirit, and acid; by which means it is enabled to act upon vegetable and animal substances, and to dissolve bodies of the metallic kind, so as to pregnate itself with their virtues, as steel, antimony &c.

358. *Anthelmintic wine*.—Take of rhubarb, half an ounce. worm-seed, an ounce. Bruise them and infuse without heat, in two pints of red port wine for a few days; then strain off the wine.

As the stomach of persons afflicted with worms are always debilitated, red wine alone often proves serviceable: it must have still better effects when joined with bitter and purgative ingredients, as in the above form.

A glass of this wine may be taken twice a day,

359. *Antimonial wine*.—Take glass of antimony, reduced to a powder, half an ounce; Lisbon wine, eight ounces. Digest, for three or four days, now and then shaking the bottle; afterwards filter the wine through paper.

The dose of this wine varies according to the intention. As an alterative and diaphoretic, it may be taken from ten to fifty or sixty drops. In a large dose it generally proves cathartic, or excites vomiting.

360. *Bitter wine*.—Take of gentian-root, yellow rind of lemon-peel, fresh, each one ounce; long pepper, two drachms; mountain-wine, two pints. Infuse without heat for a week, and strain out the wine for use.

In complaints arising from weakness of the stomach or indigestion, a glass of this wine may be taken an hour before dinner and supper.

360. *Ipecacuanna wine*.—Take of ipecacuanna, in powder, one ounce; mountain wine, a pint. Infuse for three or four days; then filter the tincture.

This is a safe vomit, and answers extremely well for such persons as cannot swallow the powder, or whose stomachs are too irritable to bear it.

The dose is from one ounce to an ounce and a half.

362. *Chalybeate or steel wine*.—Take filings of iron, two ounces; cinnamon and mace, of each two drachms; Rhenish wine, two pints. Infuse for three or four weeks, often shaking the bottle: pass the wine through a filter.

In the obstruction of the menses, this preparation of iron may be taken in the dose of half a glass twice a day.

The medicine would probably be as good if made with Lisbon wine, sharpened with half an ounce of the cream of tartar, or a small quantity of vitriolic acid.

363. *Stomach wine*.—Take of Peruvian bark powdered, an ounce; cardamon-seeds, and orange peel, bruised, of each two drachms.

Infuse in a bottle of white port, or Lisbon wine, for five or six days; then strain off the wine.

The wine is not only of service in debility of the stomach and intestines, but may also be taken as a preventive, by persons liable to the intermittent fever, or who reside in places where this disease prevails. It is of use to those who recover slowly, after fevers, as it assists digestion, and helps to restore the tone and vigour of the system. A glass may be taken two or three times a-day.

364. *Singular effect of heat*.—If a piece of tin foil be wrapped in a piece of platinum foil of the same size, and exposed on charcoal to the action of the blow pipe, the union of the two metals is indicated by a rapid whistling, and by an intense brilliancy in the light which is emitted. If the globule thus melted is allowed to drop in a basin of water, it remains red hot at the bottom; and such is the intensity of the heat, that it melts and carries off the glaze of the basin from the part on which it falls.

365. *A new stain for wood*.—A beautiful new stain for wood, consists of a decoction of walnut or hiccory bark, with a small quantity of alum dissolved in it, to give permanency to the colour. Wood of a white colour receives by this liquid a beautiful yellow tinge, which is not liable to fade. It is adapted for furniture made of maple, particularly that kind called bird's eye. The application of the walnut dye gives a lustre even to the darkest shades, while to the paler and fainter ones it adds a somewhat

greenish hue, and to the white parts, various tints of yellow. After applying this stain to cherry and apple wood, if the wood slightly reddened with a tincture of some red dye whose colour is not liable to fade, a handsome dye is thus given, which becomes more beautiful as the wood grows darker by age.

366. *Mode of imitating seed pearls.*—Cut silver lace in pieces of various lengths; put them into a crucible, with pounded charcoal, one stratum above another; give it a heat sufficient to melt the silver, which will be found on cooling, fused into grains, resembling pearls.

307. *Chinese paints.*—The peculiar beauty of Chinese drawings is owing, not to the nature of the colouring substances, but to their being mixed with glue or size, instead of gum water, as is the practise in Europe. In regard to the preparation, two things must be observed; first, that the beauty depends, in a great measure, upon the fineness of its particles, the finest being the most beautiful. A Chinese painter, employs a man for three or four days to grind a small quantity of vermilion in a porcelain mortar, and it is from this they derive their fine reds. Secondly, it must be considered, that most mineral colours are prepared with acids, alkalies, or other salts, and that a small superabundance of those saline substances remains with them, which, after a shorter or longer time produces considerable alteration in their brilliancy, and often entirely changes their colour. To obviate this inconvenience, the paint, after having been livigated, must be repeatedly washed in clean water; distilled water is the fittest. To effect this properly, put half an ounce of the paint in a half-pint glass phial, and fill the rest of the phial nearly full of water; shake it well, then let it stand for a while, and the coloured powder will soon fall to the bottom; pour off the water, by inclining the phial, so as not to disturb the sediment, and fill it again with clean water, and so on for five or six times; after which the colour being gently dried, must be ground a little longer, when it is fit for use. The glue or or size to be mixed with the paints is extracted from parchment as follows:—Take about four ounces

of clean parchment, cut into bits, and put it to soak in a quart of clean water for about twelve hours; boil the whole on a gentle fire, and in the beginning take off the scum with a spoon. The vessel must remain uncovered, and the liquor must be stirred occasionally. After boiling about an hour, take off the pot from the fire, and strain the liquor while hot, through a coarse sieve. The liquor must be again put over the fire, in a clean pot, and boiled till half is evaporated; the remainder is then spread very thinly upon panes of glass, which being kept in a warm place for a day or two, the size will dry, and become very hard. When it is wanted for use, put a little of it in a cup of warm water, and dip the hair pencil in it. The properties of this glue, which render it superior to gum-water, are the following:—It does not deaden, nor alter the colours with which it is mixed: it does not crack like gum, and it is so soon hard, as not only to defend the colours from being affected by smoke, but even to bear the surface of the drawing, being cleaned by the means of a wet sponge.

368. *Imitation of mother-of-pearl.*—The imitation of mother-of-pearl is produced by a preparation of sea-shells reduced to powder, and formed into a paste. The Chinese is said to form their imitations of mother-of-pearl from rice glue, which is nothing more than rice ground to an impalpable powder, mixed with cold water, and then boiled; a paste is thus produced, which may be formed into moulds or figures.

369. *Method of cleaning playing-cards.*—Nothing soils sooner than playing-cards, and they are an expensive article to replace, owing to the high duty they pay. The following method will be found to remove every thing from them but a stain, and will give the dirtiest pack the appearance of being new. Rub the soiled card with a piece of flannel and fresh butter, until the butter has cleaned off all the dirt. So soon as the dirt is removed, wipe off the butter with a clean rag; and to restore the card to its former gloss, rub the surface sharply with a piece of flannel and flour; cut the edges neatly with a pair of scissars, and the operation is completed.

BALSAMS.

370. The subject of this section is not the natural balsams, but compositions, which from their being supposed to possess balsamic qualities, generally go by that name. This class of medicines was formerly very numerous, and held in great esteem. Modern practice has justly reduced it to a very narrow compass.

371. *Anodyne balsam*.—Take of white Spanish soap, one ounce; opium unprepared, two drachms; rectified spirit of wine, nine ounces. Digest them together in a gentle heat for three days: strain off the liquor, and add to it three drachms of camphor.

This balsam is intended to heal pain. It is of service in violent strains and rheumatic complaints, when not attended with inflammation. It must be rubbed with a warm hand on the part affected; or a linen rag moistened with it may be applied to the part, and renewed every third or fourth hour till the pain abates. If the opium is left out, this will be the Saponaceous balsam.

372. *Locatelli's balsam*.—Take of olive-oil, one pint; oil of turpentine and yellow wax, of each half a pound; red saunders six drachms. Melt the wax with some part of the oil over a gentle fire; then adding the remaining part of the oil of turpentine; afterwards mix in the saunders, previously reduced to a powder, and keep them stirring together till the balsam is cold.

This balsam is recommended in erosions of the intestines, the dysentery, hæmorrhages, internal bruises, and complaints of the breast. Outwardly, it is used for healing and cleansing wounds and ulcers. The dose, when taken internally, is from two scruples to two drachms.

373. *The vulnerary balsam*.—Take of benzoin, powdered, three ounces; balsam of Peru, two ounces; hepatic aloes, in powder, half an ounce; rectified spirit of wine, two pints. Digest them in a gentle heat for three days, and then strain the balsam.

This balsam, or tincture, is applied externally to heal

recent wounds and bruises. It is employed internally to remove coughs, asthmas and other complaints of the breast, it is said to ease the colic, cleanse the kidneys and to heal internal ulcers, &c. The dose is from twenty to sixty drops.

This medicine does not deserve the extravagant encomiums which have been bestowed on it. It has been celebrated under the names of the Commander's Balsam, Persian Balsam, Balsam of Borne, Wade's Balsam, Friar's Balsam, Jesuit's Drops, and Turlington's Drops.

DECOCTIONS.

374. Water readily extracts the gummy and saline parts of vegetables; and though its action is chiefly confined to these, yet the resinous and oily being intimately blended with the gummy and saline, are in part taken up along with them. Hence watery decoctions and infusions of vegetables constitute a large class of medicines. Although most vegetables yield their virtues to water, as well by infusion as decoction, yet the latter is necessary, as it saves time, and does in a few minutes what the other would require hours to effect.

The medicines of this class are all intended for immediate use.

375. *Decoction of althea*.—Take of the roots of marshmallows, dried, three ounces; raisins of the sun, one ounce; water, three pints.

Boil the ingredients in the water till one-third of it is consumed; strain the decoction, and let it stand for some time to settle. If the roots be thoroughly dried, they must be boiled till one half of the water be consumed. In coughs and sharp defluations from the lungs, this decoction may be used for ordinary drink.

376. *The common decoction*.—Take of camomile flowers an ounce; elder-flowers, and sweet fennel-seeds, of each half an ounce; water, two quarts. Boil them, and then strain the decoction.

A medicine equally good may be prepared by infusing the ingredients for some hours in boiling water.

This decoction is intended as the basis of clysters, to which other ingredients may be added. It will likewise serve as a common fomentation, spirit of wine, or other things, being added in such quantity as the case may require.

377. *Decoction of logwood.*—Boil three ounces of the shavings, or chips, of logwood in four pints of water, till one half the liquor is wasted. Two or three ounces of cinnamon-water may be added to this decoction.

In fluxes of the belly, where the stronger astringents are improper, a tea-cupful of this decoction may be taken with advantage three or four times a-day.

378. *Decoction of the bark.*—Boil an ounce of the Peruvian bark, powdered, in a pint and a half of water to one pint; then strain the decoction. If a tea-spoonful of the weak spirit of vitriol be added to this medicine, it will render it both more agreeable and efficacious.

379. *Compound decoction of bark.*—Take of Peruvian bark and Virginian snake root, powdered, each three drachms. Boil them in a pint of water to one half. To the strained liquor add one ounce and a half of aromatic water.

Sir John Pingle recommends this as a proper medicine towards the decline of malignant fevers, when the pulse is low, the voice weak, and the head affected with a stupor, but with little delirium. The dose is four spoonful every fourth or sixth hour.

380. *Decoction of sarsaparella.*—Take of fresh sarsaparella root, sliced and bruised, two ounces; shavings of guaiacum-wood, one ounce. Boil over a slow fire, in three quarts of water to one, adding, towards the end, half an ounce of sassafras wood, and three drachms of liquorice. Strain the decoction.

This may be either be employed as an assistant to a course of mercurial alteratives, or taken after the mercury has been used for some time. It strengthens the stomach and restores fresh vigour to habits emaciated by the venereal disease. It may also be taken in the rheumatism, and cutaneous disorders proceeding from foulness of the blood and juices. For all these intentions, it is preferable to the *Decoction of Woods*. This decoction may be taken from a pint and a half to two quarts in a day.

The following decoction is said to be similar to that used by *Kennedy*, in the cure of the venereal disease, and may supply the place of the Lisbon diet-drink.

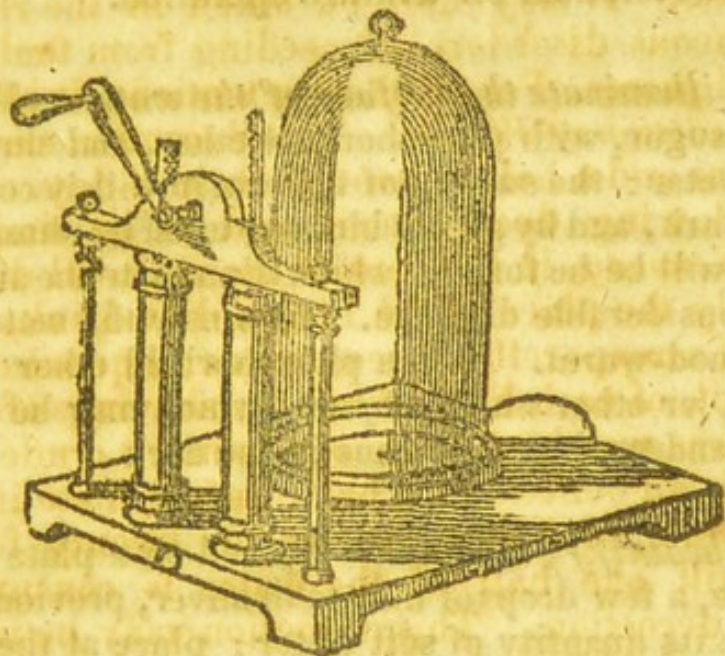
Take of sarsaparella, three ounces; liquorice and mezereon root, of each half an ounce; shavings of guaiacum and sassafras wood, of each one ounce; crude antimony powdered, an ounce and a half. Infuse these ingredients in eight pints of boiling water for twenty four hours, then boil till one half of the water is consumed; then strain the decoction. This decoction may be used in the same manner as the preceding.

381, *Decoction of seneka*.—Take of seneka rattle-snake root, one ounce; water, a pint and a half. Boil to one pint and strain. This decoction is recommended in the pleurisy, dropsy, rheumatism, and obstinate disorders of the skin. The dose is two ounces, three or four times a day, or oftener, if the stomach will bear it.

382. *White decoction*.—Take of the purest chalk, in powder, two ounces; gum arabic, half an ounce; water, three pints. Boil to one quart, and strain the decoction. This is a proper drink in acute diseases, attended with a looseness, and where acidities abound in the stomach. It is proper for children when afflicted with sourness of the stomach, and for persons who are subject to the heart-burn. It may be sweetened with sugar, as it is used, and two or three ounces of simple cinnamon water added to it.

An ounce of powdered chalk, mixed with two pints of water, will occasionally supply the place of this decoction, and also of the chalk julap.

THE AIR PUMP.



As we shall have occasion to speak of the air pump, it may be advisable to describe the way in which it is usually constructed. The present figure represents the cheapest form, and in action, it exactly resembles the common sucking-pump, with this difference, that the valves are made of moistened bladder, instead of leather.

383. *Improved copal varnish.*—It appears, from actual experiment, that the solution of gum copal, in spirits of wine, or alcohol, an operation usually attended with considerable difficulty, may readily be performed by the following simple process. Dissolve one ounce of camphor, in a quart of alcohol; put it in a circular glass, and add eight ounces of copal in small pieces; set it in a sand heat, so regulated, that the bubbles may be counted, as they rise from the bottom, and continue the same heat, till the solution is completed. Camphor acts more powerfully upon copal than any substance yet tried. If copal be finely powdered, and a small quantity of dry camphor rubbed with it in the mortar, the whole becomes in a few minutes, a tough coherent mass. The process above

described will dissolve more copal than the menstruum will retain when cold ; the most economical method will therefore be to set the vessel which contains the solution by, for a few days, and when it is perfectly settled, to pour off the clear varnish, and leave the residuum for a future operation.

384. *To illuminate the surface of the water.*—Wet a lump of fine loaf sugar, with phosphorized ether, and throw it into a bason of water : the surface of the water will become luminous in the dark, and by gently blowing upon it, phosphorescent undulations will be formed, which illuminate the air above the fluid to a considerable distance. In winter the water must be rendered blood-warm. If the phosphorized ether be applied to the hand, or other warm objects (which may be done with safety,) it renders them luminous in the dark.

385. *To beautify glass, &c.*—Spread on a plate of glass or smooth slate, a few drops of nitrate of silver, previously diluted with double its quantity of soft water ; place at the bottom of it, flat upon the glass, and in contact with the fluid, a copper or zinc wire, bent to any figure, and let the whole remain undisturbed in a horizontal position. In a few hours a brilliant crystallization of metallic silver will make its appearance around the wire upon the glass, and this arrangement of crystals will extend gradually till the whole quantity of fluid has been acted on by the wire.

386. *To preserve fruit and flowers the whole year, without spoiling.*—Mix one pound of nitre with two pounds of bole armontac, and three pounds of clean common sand ; then in dry weather, take fruit of any sort, which is not fully ripe, allowing the stalks to remain, and put them one by one into an open glass, till it is quite full ; cover the glass with oiled cloth tied closely down. Put it three or four inches down in the earth, in a dry cellar, and surround it on all sides to the depth of three or four inches with the above mixture. The fruit will thus be preserved quite fresh all the year round.

387. *Chemical change in a fair lady's complexion.*—It is well known that white oxide of bismuth, under the name of

pearl white, is used as a cosmetic by those of the fair sex who wish to become fairer. A lady thus painted was sitting in a lecture room, where chemistry being the subject, water impregnated with sulphuretted hydrogen gas, (Harrogate water) was handed round for inspection. On smelling this liquid, the lady in question became suddenly *black in the face* ! Every one was of course alarmed at this sudden *chemical* change, but the lecturer explaining the cause of the phenomenon, the lady received no further injury, than a salutary practical lesson to rely more on mental than personal and artificial beauty in future.

DRAUGHTS.

This is a proper form for exhibiting such medicines as are intended to operate immediately, and which do not need to be frequently repeated, as purges, vomits, and a few others, which are to be taken at one dose. Where medicine requires to be used for any length of time, it is better to make up a larger quantity of it at once, which saves both trouble and expence.

388. *Anodyne draught*.—Take of liquid laudanum, twenty five drops ; simple cinnamon-water, an ounce ; common syrup two drachms. Mix them.

In excessive pain, where bleeding is not necessary, and in great restlessness, this composing draught may be taken and repeated occasionally.

389. *Diuretic draught*.—Take of the diuretic salt, two scruples ; syrup of poppies, two drachms ; simple cinnamon water, and common water, of each an ounce.

This draught is of service in an obstruction or deficiency of urine.

390. *Purging draught*.—Take of manna, an ounce ; soluble tartar, or Rochel salt, from three to four drachms. Dissolve in three ounces of boiling water ; to which add Jamaica pepper-water, half an ounce.

As manna sometimes will not sit upon the stomach, an ounce or ten drachms of the bitter purging salts, dissolved in four ounces of water, may be taken instead of the above. Those who cannot take salts, may use the following draught.

Take of jalap, in powder, a scruple; common water, an ounce; aromatic tincture, six drachms. Rub the jalap with twice its weight of sugar, and add it to the other ingredients.

391. *Sweating draught.*—Take spirit of Mindereras, two ounces; salt of hartshorn, five grains; simple cinnamon water, and syrup of poppies, of each half an ounce. Mix them into a draught. In recent colds and rheumatic complaints, this draught is of service. To promote its effects, however, the patient ought to drink freely of warm water gruel, or of some other weak diluting liquor.

392. *Vomiting draughts.*—Take of ipecacuanha, in powder, a scruple: water, an ounce; simple syrup, a drachm. Mix them.

Persons who require a stronger vomit may add to the above half a grain, or a grain, of emetic tartar.

Those who do not choose the powder, may take ten drachms of the ipecacuanha wine; or half an ounce of the wine, and an equal quantity of the syrup of squills.

ELECTUARIES.

Electuaries are generally composed of the lighter powders mixed with syrup, honey, conserve or mucilage, into such a consistence, that the powders may neither separate by keeping nor the mass prove too stiff for swallowing. They receive chiefly the milder alterative medicines, and such as are not ungrateful to the palate.

Astringent electuaries, and such as have pulps of fruit in them, should be prepared only in small quantities; as astringent medicines lose their virtue by being kept in this form and the pulps of fruits are apt to ferment.

For the extraction of pulps, it will be necessary to boil unripe fruits, and ripe ones, if they are dried, in a small quantity of water till they become soft. The pulp is then to be pressed out through a strong hair sieve, or thin cloth, and afterwards boiled to a due consistence, in an earthen vessel, over a gentle fire, taking care to prevent the matter from burning by continually stirring it. The pulps of fruit that are both ripe and fresh may be pressed out without any previous boiling.

393. *Lenitive electuary*.—Take of senna, in fine powder eight ounces; coriander seed, also in powder, four ounces, pulp of tamarinds and of French prunes, each a pound; mix the pulps and powders together, and, with a sufficient quantity of simple syrup, reduce the whole into an electuary.

A tea-spoonful of this electuary, taken two or three times a day, generally proves an agreeable laxative. It likewise serves as a convenient vehicle for exhibiting more active medicines; as jalap, scammony, and such like.

This may supply the place of the electuary of *Cassina*.

394. *Electuary for the dysentery*.—Take of the Japonic confection, two ounces; Locatell's balsam, one ounce; rhubarb, in powder, half an ounce: syrup of marshmallows, enough to make an electuary.

It is often dangerous in dysenteries to give opiates and astringents, without interposing purgatives. The purgative is here joined with these ingredients, which renders this a very safe and useful medicine for the purposes expressed in the title. About the bulk of a nutmeg should be taken twice or thrice a day, as the symptoms and constitution may require.

395. *Electuary for the epilepsy*.—Take of Peruvian bark, in powder, an ounce; of powdered tin, and wild valerian-root, each half an ounce; simple syrup enough to make an electuary.

Dr. Mead directs a drachm of an electuary similar to this to be taken evening and morning, in the epilepsy, for the space of three months, it will be proper, however, to discontinue the use of it for a few days every now and then. I have

added the powdered tin, because the epilepsy often proceeds from worms.

396. *Electuary for the gonorrhœa.*—Take of lenitive electuary, three ounces ; jalap and rhubarb, in powder, of each two drachms ; nitre, half an ounce ; simple syrup, enough to make an electuary.

During the inflammation and tention of the urinary passages, which accompany a virulent gonorrhœa, this cooling laxative may be used with advantage.

The dose is a drachm, or about the bulk of a nutmeg, two or three times a day ; more or less as may be necessary, to keep the body gently open. An electuary made of cream of tartar and simple syrup will occasionally supply the place of this.

After the inflammation is gone off, the following electuary may be used.

Take of lenitive electuary, two ounces ; balsam of capivi, one ounce ; gum guaiacum and rhubarb in powder, of each two drachms ; simple syrup enough to make an electuary. The dose is the same as of the proceeding.

397. *Electuary of the bark.*—Take of Peruvian bark, in powder, three ounces, cascarilla, half an ounce ; syrup of ginger, enough to make an electuary.

In the cure of obstinate intermitting fevers, the bark is assisted by the cascarilla. In hectic habits, however, it will be better to leave out the cascarilla, and put three drachms of crude sal ammoniac in its stead.

398. *Electuary for the piles.*—Take flowers of sulphur, one ounce ; cream of tartar, half an ounce, treacle a sufficient quantity to form an electuary. A tea-spoonful of this may be taken three or four times a day.

399. *Electuary for the palsy.*—Take of powdered mustard seed, and conserve of roses, each an ounce ; syrup of ginger, enough to make an electuary. A tea-spoonful of this may be taken three or four times a day.

400. *Electuary for the rheumatism.*—Take of conserve of roses, two ounces; cinnabar of antimony, levigated, an ounce and a half; gum guaiacum, in powder, an ounce; syrup of ginger, a sufficient quantity to make an electuary.

In obstinate rheumatisms, which are not accompanied with a fever, a tea-spoonful of the electuary may be taken twice-a day with considerable advantage.

EMULSIONS.

Emulsions, beside their use as medicines, are also proper vehicles for certain substances, which could not otherwise be conveniently taken in a liquid form. Thus, camphor triturated with almonds, readily unites with water into an emulsion. Pure oils, balsams, rasins, and other similar substances, are likewise rendered miscible with water by the intervention of mucilages.

401. *Common emulsion.*—Take of sweet almonds, an ounce bitter almonds, a drachm; water, two pints.

Let the almonds be blanched, and beat up in a marble mortar adding the water by little and little, so as to make an emulsion: afterwards let it be strained.

402. *Arabic emulsions.*—This is made in the same manner as the above, adding to the almonds, while beating, two ounces and a half of the mucilage of gum arabic.

Where cooling liquors are necessary, these emulsions may be used as ordinary drink.

403. *Camphorated emulsion.*—Take of camphor, half a drachm; sweet almonds, half a dozen; white sugar, half an ounce; mint-water, eight ounces. Grind the camphor and almonds well together in a stone mortar, and add, by degrees, the mint-water: then strain the liquor, and dissolve in it the sugar.

In fevers and other disorders which require the use of camphor, a table spoonful of this emulsion may be taken every two or three hours.

404. *Emulsion of gum ammoniac*.—Take of gum ammoniac, two drachms; water, eight ounces. Grind the gum with the water poured upon it by little, and little till it is dissolved.

This emulsion is used for attenuating tough viscid phlegm, and promoting expectoration. In obstinate coughs, two ounces of the syrup of poppies may be added to it. The dose is two table-spoonsful three or four times-a-day.

405. *Oily emulsion*.—Take of salt-water, six ounces; volatile aromatic spirit, two drachms; Florence oil, an ounce; shake them well together, and add of simple syrup, half an ounce.

In recent colds and coughs, this emulsion is generally of service; but, if the cough proves obstinate, it will succeed better when made with the paregoric elixir of the Edinburgh Dispensatory, instead of the volatile aromatic spirit. A table-spoonful of it may be taken every two or three hours.

EXTRACTS.

Extracts are prepared by boiling the subject in water, and evaporating the strained decoction to a due consistence. By this process, some of the more active parts of plants are freed from the useless indissoluble earthy matter, which makes the larger share of their bulk. Water, however, is not the only menstruum used in the preparation of extracts: sometimes tified spirits alone is employed for that purpose.

Extracts are prepared from a variety of different drugs, as the bark, gentian, jalap, &c.; but, as they require a troublesome and tedious operation, it will be more convenient for a private practitioner to purchase what he needs of them from a professed druggist, than to prepare them himself. Such of them as are generally used, are inserted in our list of such drugs and medicines as are to be kept for private use.

FOMENTATIONS.

Fomentations are generally intended either to ease pain, by taking off tension and spasm; or to brace and restore the tone and vigour of those parts to which they are applied. The first of these intentions may generally be answered by warm water and the second by cold. Certain substances, however, are usually added to the water, with a view to heighten its effects, as anodynes, aromatics, astringents, &c. We shall therefore subjoin a few of the most useful fomentations, that people may have it in their powder to make use of them, if they choose.

406. *Anodyne fomentation*.—Take of white poppy-heads, two ounces; elder flowers, half an ounce; water three pints. Boil till one pint is evaporated, and strain out the liquor. This fomentation, as its title expresses, is used for relieving acute pain.

407. *Aromatic fomentation*.—Take of Jamaica pepper half an ounce, red wine, a pint. Boil them a little, and then strain the liquor. This is intended, not only as a topical application for external complaints, but also for relieving the internal parts. Pains of the bowels, which accompany dysenteries, and diarrhæas, flatulent colics, uneasiness of the stomach, and retching to vomit, are frequently abated by fomenting the abdomen and region of the stomach with a warm liquor.

408. *Decoction for fomentation*.—Take tops of worm-wood and camomile flowers, dried, of each two ounces; water two quarts. After a slight boiling, pour off the liquor.—Brandy or spirit of wine may be added to this fomentation, in such quantity as the particular circumstances of the case shall require; but these are not always necessary.

409. *Emollient fomentation*.—This is the same as the common decoction.

410. *Strengthening fomentation*.—Take of oak bark, one ounce; granate peel, half an ounce; alum, two drachms; smiths' forge water, three pints. Boil the water with the bark

and peel to the consumption of one-third; then strain the remaining decoction, and dissolve in it the alum. This astringent liquor is employed as an external fomentation to weak parts: it may also be used internally.

GARGLES.

However trifling this class of medicines may appear, they are by no means without their use. They seldom indeed cure diseases, but they often alleviate every disagreeable symptom; as parchedness of the mouth, foulness of the tongue and fauces, &c. They are peculiarly useful in fevers and sore throats. In the latter, a gargle will sometimes remove the disorder; and in the former, few things are more refreshing or agreeable to the patient, than to have his mouth frequently washed with some soft detergent gargle. One advantage of these medicines is, that they are easily prepared. A little barley-water and honey may be had any where; and if to these be added as much vinegar as will give them an agreeable sharpness, they will make a very useful gargle for softening and cleansing the mouth. Gargles have the best effect when injected with a syringe.

411 *Attenuating gargle*.—Take of water six ounces; honey one ounce; nitre, a drachm and a half. Mix them: this cooling gargle may be used either in the inflammatory quinsy, or in fevers, for cleansing the tongue and fauces.

412. *Common gargle*.—Take of rose water, six ounces; syrup of clue, and July-flowers, half an ounce; spirit of vitriol, a sufficient quantity to give it an agreeable sharpness. Mix them. This gargle, besides cleansing the tongue and fauces, acts as a gentle repellent, and will sometimes remove a light quinsy.

413. *Detergent gargle*.—Take of the emollient gargle, a pint; tincture of myrrh, an ounce; honey two ounces. Mix them. When exulcerations require to be cleansed, or the ex-

cretion of tough viscid saliva promoted, this gargle will be of service.

414. *Emollient gargle*.—Take an ounce of marshmallow roots, and two or three figs; boil them in a quart of water, till near one half of it be consumed; then strain out the liquor. If an ounce of honey, and half an ounce of water of ammonia, be added to the above, it will then be an exceeding good attenuating gargle. This gargle is beneficial in fevers, where the tongue and fauces are rough and parched, to soften these parts and promote the discharge of saliva.—The learned and accurate Sir John Pringle observes, that in the inflammatory quinsy, or strangulation of the fauces, little benefit arises from the common gargles; that such as are of an acid nature do more harm than good, by contracting the emunctories of the saliva and mucus, and thickening those humours; that a decoction of figs in milk and water has a contrary effect, especially if some sal-ammoniac be added, by which the saliva is made thinner, and the glands brought to secrete more freely; a circumstance always conducive to the cure.

INFUSIONS.

Vegetables yield nearly the same properties to water by infusion as by decoction; and though they may require a longer time to give out their virtues in this way, yet it has several advantages over the other; since boiling is said to dissipate the finer parts of many bitter and aromatic substances, without more fully extracting their medicinal principles.

The author of the new Dispensatory observes, that even from those vegetables which are weak in virtue, rich infusions may be obtained, by returning the liquor upon fresh quantities of the subject, the water loading itself more and more with the active parts; and that these loaded infusions are applicable to valuable purposes in medicine; as they contain in a small compass the finer, more subtle, and active, principles of vegetables, in a form already miscible with the fluids of the human body.

415. *Bitter infusion.* Take tops of the lesser centaury and camomile-flowers, of each half an ounce; yellow rind of lemon and orange-peel, carefully freed from the inner white part, of each two drachms. Cut them in small pieces, and infuse them in a quart of boiling water.

For indigestion weakness of the stomach, or want of appetite, a tea-cupful of this infusion may be taken twice or thrice a-day.

416. *Infusion of the bark.*—To an ounce of the bark, in powder, add four or five table spoonfuls of brandy, and a pint of boiling water. Let them infuse for two or three days.

This is one of the best preparations of bark for weak stomachs. In disorders where the corroborating virtues of that medicine are required, a teacupful of it may be taken two or three times a-day.

417. *Infusion of carduus.*—Infuse an ounce of the dried leaves of carduus benedictus, or blessed thistle, in a pint of common water, for six hours without heat; then filter the liquor through paper.

This light infusion may be given, with great benefit, in weakness of the stomach, where the common bitters do not agree. It may be flavoured at pleasure with cinnamon, or other aromatic materials.

418. *Infusion of linseed.*—Take of linseed, two spoonful; liquorice-root, sliced, half an ounce; boiling water, three pints. Let them stand to infuse by the fire for some hours, and then strain off the liquor.

If an ounce of the leaves of coltsfoot be added to the ingredients, it will then be the *Pectoral infusion*. Both these are emollient mucilaginous liquors, and may be taken with advantage as ordinary drink, in difficulty of making water; and in coughs and other complaints of the breast.

419. *Infusion of roses.*—Take of red roses, dried, half an ounce; boiling water, a quart; vitriolic acid, commonly called oil of vitriol, half a drachm; loaf-sugar an ounce.

Infuse the roses in the water for four hours, in an unglazed earthen vessel; afterwards, pour in the acid, and having strained the liquor, add it to the sugar.

In an excessive flow of the *menses*, vomiting of blood, and other hæmorrhages, a teacupful of this gently astringent infusion may be taken every three or four hours. It likewise makes an exceeding good gargle.

As the quantity of roses used here can have little or no effect, an equally valuable medicine may be prepared by mixing the acid and water without infusion.

420. *Infusion of tamarinds and senna*.—Take of tamarinds one ounce; senna, and crystals of tartar, each two drachms. Let these ingredients be infused four or five hours in a pint of boiling water; afterwards let the liquor be strained, and an ounce or two of the aromatic tincture added to it. Persons who are easily purged, may leave out either the tamarinds or the crystals of tartar. A teacupful may be given every half hour till it operates.

This supplies the place of the *Decoction of Tamarinds and Senna*.

421. *Spanish infusion*.—Take of Spanish juice, cut into small pieces, an ounce; salt of tartar, three drachms. Infuse in a quart of boiling water for a night. To the liquor add an ounce and a half of the syrup of poppies.

In recent colds, coughs, and obstructions of the breast, a tea-cupful of this infusion may be taken with advantage three or four times a day.

422. *Infusion for the palsy*.—Take of horse-radish root, shaved, mustard seed, bruised, each four ounces; outer rind of orange peel, one ounce. Infuse them in two quarts of boiling water for twenty-four hours.

In paralytic complaints, a tea-cupful of this warm stimulating medicine may be taken three or four times a-day. It excites the action of the solids, proves diuretic, and, if the patient be kept warm, promotes perspiration.

If two or three ounces of the dried leaves of marsh-mareh be used instead of the mustard, it will make the *Antiscorbutic Infusion*.

JULAPS.

The basis of julaps is generally common water, or some simple distilled water, with one-third or one-fourth its quantity of distilled spirituous water, and as much sugar as is sufficient to render the mixture agreeable. This is sharpened with vegetable or mineral acids, or impregnated with other medicines.

423. *Camphorated julap*.—Take of camphor, one drachm; gum arabic, half an ounce; double-refined sugar, an ounce; vinegar, a pint. Grind the camphor with a few drops of rectified spirit of wine; add the gum, previously reduced to a mucilage with equal its quantity of water, and rub them till they are united. To this mixture, add, by little and little, the vinegar with the sugar dissolved in it, still continuing the trituration.

In hysterical and other complaints, where camphor is proper, this julap may be taken in the dose of a spoonful or two, as often as the stomach will bear it.

424. *Cordial julap*.—Take of cinnamon water, four ounces; Jamaica pepper-water, two ounces; volatile aromatic spirit, and spirit of lavender, of each two drachms; syrup of orange-peel an ounce. Mix them.

This is given in the dose of two spoonsful three or four times a-day, in disorders accompanied with weakness and depression of spirits.

425. *Expectorating julap*.—Take of the emulsion of gum ammoniac, six ounces; syrup of squills, two ounces. Mix them.

In coughs, asthmas, and obstructions of the breast, two table spoonsful of this julap may be taken every three or four hours.

426. *Musk julap*.—Rub half a drachm of musk together with half an ounce of sugar, and add to it gradually of simple cinnamon and peppermint-water, each two ounces; of the volatile aromatic spirit, two drachms.

In the low state of nervous fevers, hiccapping convulsions, and other spasmodic affections, two table spoonful of this julap may be taken every two or three hours.

427. *Saline julap*.—Dissolve two drachms of salt of tartar, in three ounces of fresh lemon-juice strained; when the effervescence is over, add of mint-water and common water, each two ounces; of simple syrup, one ounce.

This removes sickness at the stomach, relieves vomiting, promotes perspiration, and may be of service in fevers, especially of the inflammatory kind.

428. *Vomiting julap*.—Dissolve four grains of emetic tartar in eight ounces of water, and add to it half an ounce of the syrup of clove July-flowers.

In the beginning of fevers, where there is no inflammation, this julap may be given in the dose of one table spoonful every quarter of an hour till it operates. Antimonial vomits serve not only to evacuate the contents of the stomach, but to promote the different excretions. Hence they are found in fevers to have nearly the same effect as *Dr. James's Powder*.

429. *Ointment for the ring worm, and cutaneous eruptions*.—Diluted citron ointment; common lard, equal parts. Mix them well.

The parts should be touched with this ointment nightly.

430. *Rheumatic liniment*.—Spirits of camphor, two ounces; liquor of ammonia, half an ounce; oil of rosemary, fifteen drops. Mix.

Rub this liniment well on the parts affected with rheumatic pains, as often as requisite.

431. *To remove warts*.—A bit of impure potass, or *lapis infernalis*; should be applied to the warts, or gently rubbed on the surface of them a few minutes, so as to leave a kind of whitish paste upon them; on this should be applied, a stripe of sticking plaster, and to remain on for a week; on removing the plaster, if the warts are not gone, a similar application must be used.

432. *To remove an inflammatory pustule, commonly called a sty, from the eye-lid.*—Puncture it with a needle or lancet, and it will be immediately removed.

433. *Good application to ulcerated gums.*—Drop as much diluted sulphuric acid, into a glass of water; as will make it an agreeable taste. Wash the mouth with it.

434. *Another.*—To a wine glass of water, add two drachms of the tincture of myrrh. Wash the mouth with it. The last might be used alternately with the first.

435. *Antibilious pills.*—Take of compound extract of colocynth, two scruples; extract of jalap, one scruple; calomel, one scruple; extract of scammony, one scruple; oil of cloves, ten drops. Mix and make into twenty pills. One or two is sufficient for a dose.

436. *Female pills.*—Take of aloes, one drachm; calomel one scruple. Make into twenty pills. One or two is sufficient for a dose.

437. *To restore musty flour.*—One pound of magnesia is to be combined with two hundred and fifty pounds of musty flour; that is in proportion of thirty grains, to every pound of flour. It is to be leavened and baked in the usual way of making bread. The loaves will rise well, and also whiter than bread made in the ordinary way, and will also have an excellent taste.

438. *Vegetable laxative pills.*—Take of extract of jalap, thirty grains; extract of colocynth, twenty grains; scammony, ten grains; oil of cloves, ten drops; powdered ginger, twenty grains. Make into twenty four pills; two or three is sufficient for a dose.

This excellent Receipt is far more efficacious, and safer than all the quack Doctors nostrums in the world; and will not cost one quarter as much money.

DYING AND SCOURING.

439. *To clean white lace veils.*—Make a solution of white soap, in a clean saucepan; put in your veil, and let it boil gently a quarter of an hour; take it out into a bason with some warm water and soap, and keep gently squeezing it till it is thoroughly clean; then rinse it from the soap, and have ready a pan of cold water, in which put a drop of chemic or liquid blue; rinse the veil in this liquid, then take a tea-spoonful of starch, and pour boiling water upon it, run the veil through this, and clear it well, by clapping it between the hands; frame it or pin it out, and keep the edges straight and even.

440. *To clean black lace veils.*—These are cleansed by passing them through a warm liquor of bullock's gall and water; after which they must be rinsed in cold water, then cleansed for stiffening, and finished as follows.

Take a small piece of glue, about the size of a bean, pour boiling water upon it, which will dissolve it; when dissolved, pass the veil through it: clap it between your hands and frame it as described in the preceding receipt.

441. *Method of cleaning white, satin, silks, &c.*—Make a solution of the finest white soap, and when at a hand heat, handle your silks through this, drawing them through the hand if they are such as will bear it. If any spots appear, which may be seen by holding the satin up to the light, such spots must be dipped in the liquor, and rubbed between the hand. Sometimes two or three liquors are required in this way. The things must then be rinsed in lukewarm water, then dried and finished by being pinned out, and flossy or bright side brushed with a clothes brush, the way of the nap. The more it is brushed, the more beautiful it appears. If you are near a calenderer your articles may be calendered; if not, finish them by dipping a sponge into a little size, made by boiling isinglass in water, and rubbing the wrong side. Your things must be pinned out a second time, and again brushed and dried near a fire. Silks are done

the same way, but not brushed. If the silks are for dying instead of passing them through a solution of soap and water, they must be boiled off; but if the silks are stout the water must only be of heat sufficient to extract the filth. Being then rinsed in warm water, they are in a proper state for receiving the dye.

442. *Another method for cleaning white satins.*—French chalk must be strewed over them, and then brushed off with a hard brush. Should the satin not be cleansed by the first dusting, it may be done a second time, and it will both clean and beautify the satin. The more it is brushed the better.

443. *To clean orange colour on silk, cotton, and woollen.*—If it is a silk garment, it must be cleaned with a solution of soap, and in the second liquor pearl-ash must be used to stay the colour. The water must be used much under a hand heat for silks. If requiring more to scarlet or redder, the pearl-ash must be omitted, and a little vinegar used in the rinsing water. See the mode of cleaning of coloured woollens in the following pages, recollecting that acids heighten the red colour, and alkalies make it more upon the buff.

444. *Of cleaning black silk.*—If this is a slip, unpick the seams, take one piece at a time, and put it on a table, then take a penny worth of bullock's gall, and boiling water sufficient to make it pretty warm, dip a sponge in the gall liquor, and, washing your sponge in warm water after dipping it into the liquor, rub the silk on both sides squeeze it well out, and proceed as before. Then hang up this piece of silk, and clean the others in the like manner. When the whole are done, immerse them altogether in a pan of spring water, to wash off the dirt which the gall has brought upon the surface of the silk: change your rinsing waters till they are clean, and after washing, dry your silks in the air, and pin them out on a table, &c. first dipping a sponge in glue water, and rubbing it on the wrong side of the silk. Dry it near the fire, and it will be as new.

445. *For dipping black silks when they appear rusty, or the colour faded.*—For a silk dress, your own discretion must be used, whether the silk can be roused, or whether it requires to be redyed. Should it require redying, this is done as follows: for a gown, boil two ounces of logwood; when boiled half an hour, put in your silk, and simmer it half an hour: take it out, and add a piece of blue vitriol as big as a pea, and a piece of green copperas as big as the half of a horse bean; when these are dissolved, cool down the copper with cold water, and put in your silk, and simmer half an hour, handling it over with a stick; wash and dry in the air, and finish as above. If only wanting to be roused, pass it through spring water, in which is half a tea-spoonful of oil of vitriol. Handle in this five minutes, rinse in cold water, and finish.

446. *Of silks stained by corrosive or sharp liquors.*—We often find that lemon juice, vinegar, oil of vitriol, and other sharp corrosives, stain dyed garments. By adding a little pearl-ash to a soap lather, and passing the silks through these, the faded colour will be restored. Pearl-ash and warm water will do alone, but it is the best method to use the soap lather and pearl-ash together.

447. *To clean silk stockings.*—Wash them in soap and water; and then, either into a tin or copper boiler, cut an ounce of white soap into thin slices, and, putting the stockings in, boil them ten minutes; take them out and rinse them in cold water. If they are to be of a blue cast take one drop of liquid blue, put it in a pan of spring water, run the stockings through this, and dry them in the air. If they are to be of a pink cast, drop one or two drops of the saturated pink dye into a pan of water, and run them through this instead of the chemic blue. If they are designed to have a flesh colour, a little rose pink is used in a thin soap liquor. All silk stockings, black excepted, are to be rubbed with a clean flannel, and sent to be calendered or mangled.

448. *The mode of extracting grease spots from silk, coloured muslins, &c.*—Take French chalk, finely scraped,

and put it on the grease-spot, holding it near the fire, or over a warm iron reversed, or on a water plate, in which is boiling water. This will cause the grease to melt, and the French chalk will absorb it, and it may then be brushed off. If any grease remains, proceed as before. The French chalk is a fine powder, and of a dry quality, acting upon silks as Fuller's earth does upon woollen.

449. *Method of taking out the spots of paint, or other solid substances, from cloths, silks, &c.*—Supposing a small quantity of paint had dropped on a coat, a pen should be dipped in spirit of turpentine, and its contents dropped on the paint spot, in a quantity sufficient to discharge the oil and gluton that is mixed with the paint. Let it rest several hours, that it may penetrate and suck up the oil: and when it has done this, take the cloth between your hands, and rub it; the paint spot will then crumble away like dried earth. The turpentine will not injure the cloth.

If the spots be numerous, apply the spirit of turpentine over the silk, &c. with a sponge, as soon as possible after the oil or paint, &c. has been spilt upon it, and *before it is become dry*: by these means it may in general be completely washed out.

450. *To prevent scarlet cloth from being stained black.*—As all corrosive, vitriolic, or salt liquors stain this colour, as the dirt of the streets, the dropping of houses, &c. and as these contain a vitriolic property, when any spots of this nature appear upon your return home, wash them out in a little spring water, in which a dust of tartar has been thrown, and it will extract the filth, and leave no manner of stain.

451. *For cleaning thin cottons, as gowns &c.*—Instead of rubbing the soap on the cotton, make a solution of soap and put in your goods; then wash them as a washer-woman would. The benefit resulting from the difference of procedure is, that the cottons are cleaned all over in an equal degree, which is not the case when the soap is rubbed on the body of the cotton: for then we often find soap in the pores of the cotton, which prevents such parts from

receiving the dye, or appearing clear; wheraas the solution if made as described for quilts, &c. will extract all impurities, and do it evenly. It often happens in coloured cottons, where greens, reds, &c. are used, that the colour will run; in such case some acid, as lemon-juice, vinegar, oil of vitriol, or any other, should be infused in the rinsing waters to preserve the colours, especially in Scotch plaids.

452. *The method of dipping scarlet cloth.*—The mode of dipping scarlet cloth, after it has been cleaned with soap, and rinsed in warm water, is as follows:

When the spring water in your copper (or boiler, or tin kettle, or whatever your convenience may be) boils, put in a quarter of a pound of young fustic, and a drachm of pounded and sifted cochineal, and an equal quantity of cream of tartar and cochineal; then, when these have boiled five or six minutes, cool down your copper by adding a pint or two of cold spring water, and a table spoonful of the solution of tin; then stir the mixture, put in your cloth, and boil it for ten minutes; when dry, send it to be cold pressed.

453. *A cheaper method.*—But not so good as the foregoing, which I never knew to fail, is as follows: heat your copper to a hand heat, add two ounces of the best crop madder, and a like quantity of turmeric, if required; but for a deep red, turmeric must be omitted. When these have simmered ten minutes, then put in your goods, and simmer them ten minutes, or longer, if required. The Irish dyers, instead of the solution of tin, use a few drops of the oil of vitriol, so as to make the liquor taste tart; handle the goods through this for two or three minutes, then take them out, rinse them in cold spring water, and hang them up to dry. Care must be taken, when the madder is used for reds, not to let the water boil, as this drug, as well as the carthamus, affords two colours, the one red, the other brown; madder, on being boiled, gives out the brown.—This method will not answer for fire-coloured scarlet, but will do for bright coloured reds, when the colour requires to be saddened.

454. *To raise the nap on cloth.*—When woollens are wore thread bare, as is the case in the elbows, sleeves, cuffs, &c. of men's coats, the coat, &c. must be soaked in cold water for half an hour, then taken out of the water, and put on a board, and the thread-bare parts of the cloth rubbed with a half-worn hatters' card, filled with flocks, until a sufficient nap is raised. When this is done, hang your coat, &c. up to dry, and with a hard brush lay the nap the right way. This is the method which is pursued by the dealers in old clothes.

455. *To revive the faded colour of black cloth.*—If a coat, clean it well, as described in scouring blues, blacks, browns, &c. then boil from two to four ounces of logwood in your copper or boiler for half an hour; dip your coat in warm water, and squeeze it dry, and put it into a copper and boil half an hour. Take it out and add a piece of green copperas about the size of a horse bean; boil it another half hour, then drhw it, and hang it in the air for an hour or two; take it down, rinse it in two or three cold waters, dry it, and let it be well brushed with a soft brush, over which a drop or two of oil of olives has been rubbed: stroke your coat regularly over. If any part of the coat, &c. should be worn thread-bare, the nap must be raised with a prickly thistle, &c. and the coat will look as new. Some dyers use old black liquor instead of logwood and copperas.

356. *To dry-clean clothes of any colour.*—First, examining where the spots of grease are, dip your brush in warm gall, and strike over the greasy places, when the grease will disappear; rinse it off in cold water; dry by the fire, then take sand, such as is bought at the oil shops, and laying your coat flat on the table, strew this sand over it, and knocking your brush on it, beat the sand into the cloth; then brush it out with a hard brush, and it will bring out all the filth with it. This does also for coach linings, and gentlemen's clothes, &c. In the summer time, when the dust gets into clothes, &c. after they have been well shaken and brushed again, pour a drop or two of the oil of olives into the palm of your hand, rub this over

your soft brush, strike your coat over with it, and this will brighten the colour if either blue, black, or green.

457. *For sulphuring wool, silks, straw bonnets, &c.*—Put into a chaffing dish some lighted charcoal; put this chaffing dish into a small close room, without a chimney, or into a closet or large box; then pound an ounce or two of brimstone, and strew it on the hot coals. Hang up the articles you would have bleached, make your door fast, and let them hang three hours, or all night, if you have time. This is what is called dry bleaching woollens: all fine coloured woollens should be sulphured in this way previously to their being dyed. Straw bonnets are likewise bleached in the same manner.

458. *Remarks on scouring woollens.*—It often happens that woollens are dyed with a false dye, which is generally more brilliant than a fast or good dye. When this happens to be the case, especially in very fine colours as purple, greens, maroons, &c. instead of spotting the clothes with soap in the solid state, other means must be used. A thin solution of soap should be made, and the brush dipped in and then applied to the dirty places; and in case it is a false green, after it has been treated the same as all light colours, a pan should be filled half full of spring water, and the coat, &c. having been previously well rinsed in two waters at least, a tea spoonful or rather more of the best oil of vitriol should be poured into this vessel of spring water, and the coat put in and handled a minute or two, which will revive the colours, if a chemic green; and if not, it will not hurt any fast green.

459. *For scouring grey, drab colours, fawns, maroons, and all other coloured woollens, such as ladies' pelisses, mantles, coats, &c.*—Supposing the garment to be a coat, take some of the best yellow soap, and cutting it into thin slices, pour upon it a sufficient quantity of water, just to moisten it. Then roll it into a ball, and rub all the greasy and dirty spots of the coat with it. Let it dry a little, and then taking warm water, dip your brush in it, and stroke off the soap: if not quite clean, proceed as before,

and use your water a little hotter ; rince at least three times, in two or three buckets or pans of water ; the first of these should be blood warm, or even hotter. Hang to dry, as before directed.

460. *For scouring black, blue, and dark brown woollens, such as broad and narrow cloths, gentlemens' coats, ladies' pelisses, &c.*—Supposing the article to be cleaned is a man's coat, first dry about two ounces of fullers' earth by the fire, then pour a sufficient quantity of boiling water on it to dissolve it to the consistence of treacle ; take a sufficient quantity of this on the top of your three fingers, and plaster thinly over such spots of grease as may be on the coat, particularly those on the cuffs, collar, the pocket-holes, and under the arms, &c. This done, if you have time, dry it by the fire, or in the sun ; prepare a pennyworth of bullock's gall, and mix with it half a pint of stale urine ; add to this, if required, a little boiling water, to make the quantity of alkaline liquor sufficient for your purpose, such as chamber lye, pot-ash liquor, or bullocks' gall. You must take care not to weaken this too much with water ; but instead of it, add as much as you like of the chamber lye. Dip your hard brush in this liquor, and brushing the spotted places in your coat, you will find it to produce a white froth, like soap lather. After this you must mind and dip the coat in a bucket of cold water, spring water is the best, to wash off the filth and bad smell. Then take a walking stick, and put through the two arm-holes, and putting a string round the middle of the stick, hang the coat to dry. When it is nearly dry, take your brush and lay the nap the right way of the cloth, and when quite dry, pour a small drop of oil of olives in your hand, and pass it over the brush, with which strike your coat ; and, if too much oil is not used, it will give it the appearance of new.

461. *For scouring party-coloured woollen, as carpets, hearth-rugs, &c.*—It is customary with the scouring trade in this metropolis, to have a large scouring board ; the narrowest part of the carpet is first pulled on the table, and, according to the colours that are in the carpet, either gall or soap must be used, and sometimes both. Carpets

are drawn across a table, or scouring board, and a piece of soap is rubbed on every spot of grease or dirt. If the soap is very hard, it is customary to have a bowl of hot water by your side to dip it into. The carpet must first be beaten before it is brought to the scouring board; after all the spots have been soaped, lay the part which was first soaped, upon the table; then take a hard brush dipped in boiling water, and holding the brush by the middle, with the arm extended in front of the body, so as to have your full strength, rub the spots until the dirt is extracted. This is to be continued all over the carpet till the dirt is out. If the carpet should be very dirty, a solution of soap must be put into your scouring tub, with hot water; then put in your carpet, and beat it with the doll; afterwards rinse it in as many different waters as it may require. In the last rinsing water put a table spoonful of oil of vitriol; it will brighten the colours and make the carpet look clear where reds and greens are in it.

THE NAMES, PRICES, AND METHODS OF PREPARING VARIOUS DYES.—METHODS OF DISCHARGING AND REDYEING,

462. *On colours.*—The five chief colours are blue, red, yellow, black, and brown; each of these, separately, will afford an infinite number of colours, or rather shades, and by the combination of two or more of them, all the colours in dyeing are formed.

463. *On the mixture of the five chief colours, taken by three and three to produce the various compound colours.*—From blue, red, and yellow, the red olives, and greenish greys are made. From blue, red, and brown, olives are made from the lightest to the darkest shades; and by giving a shade of red, the slated and lavender greys are made. From blue, red, and black, greys are made, such as sage, pigeon, slate, and lead greys. The king's or prince's colour is duller than usual; this mixture produces

a variety of hues, or colours almost to infinity. From yellow, blue, and brown, are made the goose dung, and olives of all kinds. From brown, blue, and black, are produced the brown olives. From the red, yellow, and brown are derived the orange, the gold colour, feuille-mort or faded leaf, dead carnations, cinnamon, fawn, and tobacco, by using three, or two of the colours, as required. From yellow, red, and black, browns are made. From blue and yellow, greens of all shades. From red and blue, purples of all kinds are formed.

464. *The names of the principal dyeing drugs, and the current prices, averaged for seven years together.*—From these an accurate idea may be formed as to the expence of dyeing each garment, which will not exceed one-eighth of the charge made by a dyer. Thus it will be seen, that eight garments may be dyed and redyed at the expence charged by the trade for one. A dyer charges from three shillings and sixpence to five shillings and sixpence for cleaning a lady's pelisse; whereas, done at home, the charge will not exceed sixpence; namely, twopence for bullóck's gall, or if of a light colour, a quarter of a pound of soap, two pence, and pressing as before. The names of the principal dyeing materials are alum, argol, or tartar, green copperas, verdigris, blue vitriol, roch alum, American or quercitron, and oak bark, fenugreek, logwood, old and young fustic, Brazil wood, braziletto, camwood, barwood, and other red woods, peach wood, sumach, galls, weld, madder, of three or four sorts, safflowers, savory, green wood, arnatto, tumeric, archil, cudbear, cochineal, lac cake, lac dye, and indigo. Brazil wood is about one shilling and sixpence per pound, sumach fivepence, other woods from twopence to three pence per pound, safflower one shilling and sixpence to two shillings, cudbear two shillings, and archil tenpence.

ON THE EFFECTS OF VARIOUS SALTS OR MORDANTS ON COLOURS.

465. *Remarks on the dye of madder.*—For a madder red

on woollens, the best quantity of madder is one half the weight of the woollens that are to be dyed: the best proportion of salts to be used is five parts of alum, and one of red tartar, for sixteen parts of the stuff.

A variation in the proportions of the salts, alters the colour that the madder gives. If the alum is lessened, and the tartar increased, the dye proves a red cinnamon. If the alum be omitted, the red disappears, and a durable tawny cinnamon is produced.

If woollens are boiled in weak pearl-ash and water, the greatest part of the colour is destroyed. A solution of soap discharges part of the colour, and leaves the remaining more beautiful.

Volatile alkalies heighten the red colour of the madder, but they make the dye fugitive.

466. *Remarks on logwood dye.*—Volatile alkaline salts or acids incline this to purple; the vegetable acids render it pale; the vitriolic and marine acids deepen it.

467. *Lime water.*—Lime water in dyeing brown or or black, is found to be a good corrosive, as also an alterative, when the goods are not come to the shade required; but practice alone can shew its utility; it answers for either woollens, silks, or cottons.

468. *To make chemic blue and green.*—Chemic for light blues and greens, on silk, cotton, or woollen, and for cleaning and whitening cottons, is made by this process:

Take one pound of the best oil of vitriol, which pour upon one ounce of the best spanish flora indigo pounded and sifted; add to this, after it has been well stirred, a small lump of pearl-ash as big as a pea, or from that to the size of two peas, this will raise a fermentation, and cause the indigo to dissolve in minuter and finer particles than otherwise. As soon as this fermentation ceases, put it into a bottle tightly corked, and it may be used the next day. If more than the quantity of pearl-ash should be used, it will deaden and sully the colour.

Chemic for green, as above for blue, is made by adding one fourth more of the oil of vitriol.

If the chemic is to be used for woollen, East India indigo will answer the purpose even better than Spanish indigo, and at one quarter of the price; but the oil of vitriol is good for both.

469. *To make the solution of tin in aqua regia.*—Take eight ounces of filtered river water, and eight ounces of the best aqua-fortis, mix these two liquids together; then add half an ounce of sal ammoniac by degrees, taking care that one piece dissolves before you add a second, and lastly, two drachms of saltpetre; whilst this is dissolving, take one ounce of refined block tin: it is to be had in small bars; put this ounce of tin into a fire-pan, or any iron crock, set it over the fire, and when it is melted, hold it four or five feet above your vessel, and drop it into a pan of water, by which means it will fall to pieces.

Take this granulated tin, and put a small piece at a time into the aqua regia made as above, and when that you put in last disappears, add more, and so continue till the whole is dissolved; keep it tightly corked for use. When finished, it will be of a beautiful yellow, though if it should be white, it will not be the worse for use; keep it in a cool place, as heat turns it milky, and spoils it.

470. *To make muriatic or bleaching acids,*—

Take of sea salt.....	8 parts
Of sulphuric acid (oil of vitriol).....	5 ditto
Black oxide of manganese.....	3 ditto
Water	4 ditto

The manganese is to be had of Knight's, Foster Lane, Cheapside, London, and most parts of the country; or the muriatic acid may be had at any cotton bleachers, and also at the druggists'. This acid extracts writing from paper, ink spots, iron moulds, &c. from cotton.

471. *To make muriate of tin.*—Take eight ounces of muriatic acid, and dissolve in it half an ounce of granulated tin; when this is done, pour off the clear liquid

into the bottle you mean to keep it in for use, weakening it if required, with pure filtered river water.

472. *A cold indigo vat for silks, woollens, &c. (French method.)*—Take four pounds of East India indigo, well pounded and sifted, put them into one gallon of vinegar, which must be set over a slow fire, twenty four hours to dissolve. At the expiration of this time, if the indigo is not dissolved, pound it in a mortar, with the liquor, adding now and then a little urine; afterwards put into it half a pound of the best madder. Mix these well and pour them into a deal cask, containing sixty gallons of urine; mix well again, and stir them well morning and night for eight days, till the liquor is green, and, when stirred produces froth like other vats. It may then be worked; always stirring it before. This vat remains good till the dyeing matter is exhausted, and will dye silks blue by dipping them in warm water, and putting them in the vat for a longer or shorter time as the colour may require. Deep purples and mazarine blues must first pass through archil and hot water, then in the vat, and then in the archil, and so proceed till you have obtained the desired colour.

A vat is generally made of half a wine cask, cleanly planed out, and well washed in clean soap suds.

473, *To prepare the sour water used in dying scarlet and reds of all kinds on silk, cottons and woollens.*—To make fifteen gallons of sour water, boil the same quantity of clear river water, and pour it into a tub upon a peck of wheaten bran. Let the liquor rest that night, but stir it next morning and so continue to do four or five times a day. The tub should be put in the sun, if it be in the summer, as the water will then turn quicker.

Lime water is often used: a lump of lime should be immersed in water. When it cracks or falls to pieces it should be taken out and put into a boiler and boiled half an hour; keep this lime-liquor for use.

474. *An indigo blue vat, after the English method.*—Take from three to four pounds of the East India indigo, from two to three pounds of pearl ash, and from five to six

ounces of the best crop madder; mix the pear-ash and madder together, and boil them in three fourths of the water of the vat, for a quarter of an hour. This liquor must remain in the copper, and the fire be damped; previously to this the indigo must be cleaned and pounded in a mortar, with hot water, with about half a pound of pearl-ash. When this has stood to settle, the clear is to be poured into the vat. Proceed as before with a like quantity of pearl-ash, and a third time if required. Then pour grounds and all into the vat. A pound of bran, well cleared from the flour should be put in the bottom of the vat, and the solution of indigo poured upon it; the vat must then be stirred, observing no heat must be applied to it till it comes to a hand heat, when a little heat must be added to keep this degree of heat up. It is continued in this state until it turns green; when this appears stir it, and a scum will rise on the top of the vat: this should be blown off; and if it again forms, the vat is come to work, and a pattern may be dipped in; if it strikes, make a fresh liquor with a pound of pearl-ash, and two-ounces of madder; pour this in, rake it well, in three hours it will be fit for use.

475. *To make an alum tub.*—It is here proper to enumerate the colours necessary to be alumed; which are, all yellows, and reds, and shades from these colours, as cinnamons, maroons, bright reds, yellows, gold colours, &c. Small dyers have a tub in which three pounds of alum is dissolved and in this way, a tea kettle of boiling water is poured on the alum after the alum has been beaten small. When this is dissolved it is to be poured into a tub of cold water, about fifteen gallons. This tub must be made narrow at the bottom, and gradually wider toward the top, so that, when garments are put into it they may be easily opened, and spread out to receive the alum regularly. A few sticks are to be put across the top of this tub and a pin, bent as a fish hook is to be tied to a piece of string and let down under the surface of the alum liquor, then fastened round these sticks, if a garment is wanted to be put into this preparation liquor, it is to be raised up and down two or three times in order to wet well. Then the widest end is hooked on the pins, and the other end is let

down into the water. If it is to remain in this liquor two hours then, in one hour, change ends with it, so that it may receive the alum regularly. This precaution is absolutely necessary, because if any part of the garment should receive more alum than the other parts, the dye will be uneven. For full yellow and reds, let the silks remain in the alum tub all night; but for delicate reds two hours, more or less, are enough. In cold weather heat this alum liquor by adding water to it; and even in summer, where a quick strong aluming is required, it may be given hot, only the colour is not so bright.

N. B. All silks must be handled through warm water previously to their being put in the alum tub: this is what is called wetting out. This alum tub will keep till the acid salts of the lemon are spent.

476. *How to discharge cinnamons, greys, &c. when dyed too full.*—Take some tartar, pounded in a mortar, sift it into a bucket, then pour over it some boiling water. The silks, &c. may then run through the clearest of this liquor, which will discharge the colour; but if the dye does not take on again evenly, more tartar may be added, and the goods run through as before.

ON ALUMING AND DYEING SILKS, SATINS, RIBBONS, STRAW BONNETS, FEATHERS, &c.

467. *On aluming Silks.*—No alum is wanted in silks to be dyed blue, as indigo requires no astringent to make it adhere.

Silk should be alumed cold; for when it is alumed hot, it is deprived of a great part of its lustre. The alum liquor should always be strong for silks, as they take the dye more readily afterwards.

471. *On dyeing silks in the small or false dye.*—This is the mode used by the rag dyers; though among various recipes in this work, there are many for holding colours. As to garments, whose colours change yearly, if the colour preserves its full brightness during the season, it is as

much as can be required. Without enumerating the whole, I shall now describe those colours that are most easily made, and most worn in spencers, shawls, pelisses, scarfs, bonnets, gowns, &c. beginning with light blue.

479. *Light blue silk.*—Your silk being boiled in white soap and water, and made quite white, must be rinsed in warm water. Then, take a vessel of sufficient size to wash your goods in; as for a small article a wash-hand bason. Pour into this some cold water, sufficient to cover your goods to the depth of two or three inches. Then drop from your chemic blue bottle, one or two drops; if the shade is to be azure blue, or pale blue, these will suffice; but for a darker shade more must be used. Put in your goods and handle them from ten minutes to half an hour, as the shade requires; lift up now and then some of the dye, and letting it fall again, look through it as it falls, to see if the blue is expended, and then according to the colour of your dye-water, will be that of your silk.

480. *False violet, pansy and colours bordering on purple.*—Purples are made by giving them a first colour, in a vat, more or less full as you would have the shade to be, into a blood-warm water, pour a quantity of archil, from half a pint to a pint and a half; and when this liquor is almost scalding hot, put in your goods and handle them well; and, by simmering them an hour or thereabouts, you will have a pretty fine violet, or pansy, more or less full, according to the quantity of archil used: but if the colour requires to be darkened, add barilla, alkaline lye, or potash, which will sadden it.

481. *To make a bright red with the same ingredients.*—Instead of adding pearl-ash to your liquor, take out your goods, and put in half a wine glass of the solution of tin; stir it, put your goods in again, and boil them half an hour; take them out again and add half a pint more archil and as much more of the solution of tin; put in your goods again, and boil them for ten minutes; take them out, and rinse in cold water. This last process will give them a fuller body. You will have a beautiful red rather more

lasting than any other false dye. This is calculated for ladies who can afford to change the colour of their habiliments often. A spencer or mantle may be dyed every month in the year, at the expence of sixpence per month.

482. *For dyeing pearl greys on silk.*—First boil off your silk in white soap and water, and when clear and pure, rinse it in warm water. Supposing the article to be dyed is a silk spencer, cut a quarter of an ounce of white soap into thin slices; pour boiling water on it, and then stir and beat it for five minutes, by which time the soap liquor will be at a hand heat: put a tea spoonful of chemic blue into the thin soap liquor; stir it, and put in your spencer; handle it over a quarter of an hour in this liquor, and it will be dyed.

483. *Of grey silk.*—Some dyers use, for such an article as a silk spencer, a trifling decoction of logwood, added to a pan of warm water; running the goods through this, and when they are deep enough of the red of logwood, they are taken out, and passed through chemic blue in cold water; they are afterwards rinsed, and dried in a warm room.

484. *For a stone-coloured silk.*—Bruise one or two blue galls, and boil them five minutes, then cool your copper down by adding cold water; enter your silk, and simmer it twenty minutes: then take it out, and rinse it in cold water. In the interim, boil a fresh copper of water, and add to it, by degrees, a small quantity of solution of copperas. This will produce a grey; then add some purple archil. When the stone colour is required of a sandy cast, red archil is used.* Simmer your silk in this a few minutes, then take it out and cool it in the air, and pin it out. For stiffening the silk, use isinglass dissolved in hot

* Red archil is made from purple archil, by adding a small quantity of oil of vitriol and water, which will redden it.

water; and, with a sponge dipped in this, the silk must be rubbed on the wrong side, and dried by the fire.

485. *For slate coloured silks.*—Innumerable gradations of shades of grey may be made, by varying the quantities of the ingredients in the two preceding receipts.

TO DYE BROWN SILKS AND SATINS OF ALL SHADES, AND TO MAKE THE DYE HOLD WELL

486. *A pretty hair brown.*—If the article to be dyed is a silk pelisse, fill your copper full of river water; when it boils, put in a quarter of a pound of chipped fustic, two ounces of madder, one ounce of sumach, and half an ounce of camwood, but if not required to be scoured, the camwood may be omitted. These should boil half an hour; but they may boil for two hours, that the ingredients may be well incorporated; and which should be the case with browns, and all colours where two or three are mixed together. The copper must then be cooled down by pouring in cold water: the goods may then be put in and simmered gently from half an hour to an hour. If this colour should want darkening, or saddening, take out your goods, and add a little old black liquor; or for want of black liquor, a small piece of green copperas may be used; rinse in two or three waters, and hang up to dry.

N. B. If the water boil too fast after the goods are put in, it may be apt to injure the silk; it is preferable to keep it only on the simmer.

TO MAKE ANOTHER BROWN, INCLINING MORE TO A MULBERRY.

487. *For a silk pelisse.*—Proceed in boiling the dyeing materials as directed above, observing to cool the liquor

before you put in the goods, as well as to wet out the silks previously to their being put into the dye.

Take two ounces of sumach, or instead of it, one ounce of galls.

One ounce of logwood.

Two or three ounces of cam-wood, or madder.

If these should not be sufficiently on the mulberry, add as much purple archil as may be required.

TO MAKE A BROWN INCLINING TO A BRICK COLOUR.

488. *For a pelisse, &c.*—Take of dyer's galls, two ounces.

Cam-wood, three ounces.

Fustic, one ounce.

Madder, that has been boiled for two hours, from one to three ounces, as required.

Some add a small portion of powdered argol, if it should be too red. Browns may be diversified into innumerable shades, by boiling them a longer or shorter time. The principal materials used in dyeing browns, are fustic, madder, red-wood, cam-wood, sumach, alder bark, sandal wood soot, rind of the walnut tree, the walnut tree root, &c.

Fustic and alder bark being simply boiled in water, produce yellows inclining to orange. Madder changes from a red to red brown, according as it is boiled. Red-wood produces a brick-coloured red, cam-wood, a red-brown; walnut tree root, or rind, or the green rind of the walnut, gives a brown root colour.

489. *Another root-coloured brown, in which neither walnut root nor rind is used.*—Boil for half an hour from four to five ounces of sumach, from one ounce to three of fustic, and a quarter of an ounce of madder, and a little argol: when these ingredients are boiled enough, cool your cop-

per down, put in your goods, and handle them twenty minutes; then take out your silk, and add two or three drachms of green copperas, to colour with; put in your silk again, and boil it half an hour longer: take out, wash, and dry in the air. Whenever I mention boiling in dyeing silks, simmering must be understood.

It should be remembered that this hardens the silk more than any other brown colour, being so much sumach used with copperas, both of which tend to harden the goods.

490. *Another brown of a greenish yellow cast.*—Proceed as before in the boiling; and add to the copper, when it boils, a quarter of a pound of fustic, three ounces of sumach, and a small quantity of green copperas, or verdigris and from a quarter to half an ounce of log-wood.

If it is not green enough, add a small piece of blue vitriol: but the fustic, sumach, and verdigris alone, will be sufficient.

Yellow browns are dyed with fustic, alder bark, old madder liquor, and saddened in old black liquor.

Drab colour silks are done the same way as browns, only a smaller quantity of the ingredients is used.

491. *To make fawn colour drabs.*—Boil one ounce of fustic, half an ounce of alder bark, and two drachms of archil. Or I frequently make use of old madder liquor that have been used for dying reds, when nothing but the brown dregs of the madder remain, the red being all extracted; but if madder be boiled an hour or two, it has the same effect. From one to four drachms of the best crop madder must be added to a small quantity of old black liquor, if at hand, suppose you require it to be darker. If you have no black liquor, a small piece of green copperas will answer the same purpose.

492. *To make another drab, bordering on a beaver colour.*—If the article to be dyed is a silk spencer, when your water boils, check its boiling, and put in half an ounce of archil and two drachms of madder: this may be saddened by taking out your goods, and adding a piece of green cop-

peras as big as a pea ; or sadden it with peari-ash, which is preferable. This recipe does for a spencer, or two yards of silk ; but, according to the colour required, you may add to or diminish the ingredients.

493. *Another drab, inclining to a grey, called a dove colour.*—Is made by using more archil. When your copper boils, put in a quarter of an ounce of sumach, boil it ten minutes, then add chemic blue and archil, according to the shade required ; when your liquor is of the colour you wish, which may be seen by lifting it up, cool down your copper, put in your silks, and boil then to colour.—Some dyers use Brazil, logwood, sumach, and green copperas.

494. *The french way of dyeing yellow silk.*—First alum your silks, half an hour, in cold alum liquor, then wash them. Pass them through a pan of weld liquor, at a hand heat. If they are to be of a lemon yellow, dissolve a trifling quantity of blue vitriol in your pan to the colour required. If orange colour is wanting, first dye the silk buff, with annatto or turmeric, but annatto is the best ; then let it be washed in cold water, and alumed afterwards for twelve hours : run through the weld liquor to the colour required.

495 *Yellow bordering somewhat on the blue cast, or lemon,*—Put your silk in warm water to soak ; in the meanwhile pour a pail of boiling water on a piece of blue vitriol, about the size of a marble : when this vitriol liquor comes to a hand-heat take the silk out of the warm water, squeezing it gently, and immersing it all at once in this vitriol liquor, and keep handling it over for half an hour at least, which will tinge the silk of a blue cast, though hardly perceptible ; then take it out, and squeezing it gently, put it in a bag, or damp cloth, and let it remain a day or two. But if it should have what you may think too much of the blue cast, you may rinse it in lukewarm water for a minute, gently squeeze it, and put it on a plate. In the interim, boil, for half an hour, about a pound and half of weld ; pour this dye liquor into a pan, and when at a hand-heat, put in your silk, and keep handling it well. If you should require it to be more on the green blue, you may dissolve a small piece of blue vitriol in warm water, take out

your silk from the dye, and run it through this vitriol liquor, and then back again through the dye liquor, until you have the shade required.—Rinse it in two or three waters.

496 *Another yellow, bordering on a gold colour.*—This is the same as the first recipe given for yellow silks; only when you take out your weld, add a small quantity of powdered turmeric, stirring it well in the copper for ten minutes; this will give it a gold cast: when the article is dyed, it should be slightly rinsed, and dried in doors.—Some give it the turmeric, first, then rinse it in cold water, and alum it, then give it the weld.

497. *A most beautiful bright, though a false yellow.*—For a silk spencer, put in a pan, of convenient size, from one to two ounces of the best turmeric root in coarse powder, and an equal quantity of pearl-ash, or the best yellow soap; pour on this a sufficient quantity of boiling river water, to make it of the consistence of treacle, or just as much as will dissolve it thoroughly. In the interim, have a pan full of hot water, in which pour your solution of turmeric and soap; handle it over in this dye liquor for half an hour, till it has taken a full orange or nasturtium colour, when it must be slightly rinsed in cold water, add to this water a sufficient of oil of vitriol, enough to give your liquor a slight acidulous taste; stir it well; run your silk quickly through this acidulous water, and so continue to do till the colour is of one uniform shade; that is, of a beautiful bright yellow.—Dry it in a warm room.

498. *For dyeing silks red of all shades, crimsons, &c. of a permanent colour.*—For a scarlet silk shawl; first dissolve two ounces of white soap in boiling water, handle your shawl through this liquor, now and then rubbing such places with your hands as may appear dirty, till it is as clean as this water will make it. A second, or even a third liquor may be used, if required; the shawl must be rinsed out in warm water.

Then take half an ounce of the best Spanish annatto, and dissolve it in hot water; pour this solution into a pan of warm water, and handle your shawl through this for a quarter of an hour, take it out and rinse it in clean water. In the meanwhile

dissolve a piece of alum as big as a horse-bean in warm water, and let your shawl remain in this half an hour; take it out and rinse in cold water. In the interim boil a quarter of an ounce of the best cochineal for twenty minutes, then dip it out of your copper into a pan, and let your shawl remain in this from twenty minutes to half an hour, which will make it a full blood red. Then take out your shawl, and add to your liquor in the pan a quart more of that out of your copper, if you have as much remaining, and about half a small wine glass full of the solution of tin, or more if you require your colour to be of the scarlet. But observe that too much solution impoverishes the colour; when cold, rinse it slightly out in spring water.

499. *Another scarlet, called false scarlet.*—Clean your shawl as described in the last recipe; then dissolve from a quarter of an ounce to half an ounce of annatto in warm water: handle your shawl through this twenty minutes, take out and rinse in cold water. In the interim dissolve a quarter of an ounce in hot water: when this alum-liquor is at a hand-heat, put in your shawl for twenty minutes; take out and rinse clean in cold water. In the meanwhile boil a quarter of a pound of ground Brazil wood for half an hour; pour this dye liquor into a pan, and handle your shawl through it for half an hour; then take it out, and add half a wine glass full of the solution of tin; put in your shawl and handle it ten minutes longer. It must be rinsed slightly in its own liquor, and dried in a warm room.

Some use turmeric instead of annatto; and many do not use any alum, but only a solution of tin. Then after it has a weak liquor of Brazil, and is strongly impregnated with solution of tin, a second and stronger liquor of Brazil is prepared at a hand-heat. The shawl is next immersed in this strong Brazil liquor for twenty minutes; and lastly, more solution of tin is added. In this way the colour is more bright, but less holding.

500. *Maroon silk.*—This must be first well cleaned, then strong annatto is to be put in hot water; then washed out; then alumed, and washed out: then two galls are bruised, and boiling water poured on them. The silk is run through this liquor also. It must then be slightly rinsed through Brazil

liquor at a hand-heat, and likewise in its own liquor, and dried in a warm room. This colour may be saddened by passing it through a liquor of warm water, in which a small piece of green copperas has been dissolved; and, on some occasions, the silk is passed through warm water in which a small quantity of purple archil is mixed.

501. *A false crimson.*—Supposing the article to be a silk gown, and you wish to dye it quickly of a crimson; first clean it well, and rinse it in very warm water; then dissolve an ounce of alum, and when the alum water is at a hand-heat, put in your article, which must remain in this liquor for two hours, now and then handle it over. At the expiration of that time, take it out, and slightly rinse it in cold water. In the interim, boil half a pound of ground Brazil wood, for half an hour or an hour: then pour it into your pan, and put in your goods, and handle them half an hour; then take from your copper the remaining part of your Brazil liquor, and put it into your pan, and handle there until you see your gown, &c. will not take a fuller colour. To crimson it to the shade required, add a sufficient quantity of purple archil. It may be rinsed by adding a quart or two of your dye liquor, to a pan of warm water; lastly, dry it in doors.

502. *Another method of dyeing crimson.*—This is done by pouring boiling water on cud-bear. After your silks are well cleansed, handle them through this cudbear dye for half an hour, and if not crimsoned enough, they may be saddened, or made more of the violet, by adding pearl-ash, chamberlye, or any other alkaline solution. They must be rinsed very slightly.

503. *Another crimson taken from the French method of dyeing.*—Take two ounces of gum arabic, and for every pound of silk two ounces of cochineal, and the third of an ounce of agaric, and the same quantity of turmeric; mix and put them into your copper, and when they begin to boil, and the gum is dissolved, put your silk in, let it boil two hours, and then it is dyed; wash it slightly, and dry it in the shade.

N. B. The above receipt will produce a most beautiful violet, if it be dipped for a short time in a blue vat of any kind:

to finish it, take it from the dye water, and when cold, rinse it in cold water, then pin it out.

504. *To dye a shawl crimson.*—Take about a table spoonful of cudbear: put it into a small pan, pour boiling water upon it, stir and let it stand a few minutes, then put in your silk, and turn it over a short time, and when the colour is full enough, take it out; but if it should require more violet or crimson, add a spoonful or two of purple archil to some warm water, and dry it within doors. To finish it, it must be mangled or calendered, and may be pressed, if such a convenience is at hand.

505. *Lilacs.*—Lilac may be said to be a shade of crimson, as crimson is of a purple: these are only the two same colours mixed with purples in greater or lesser quantity. In the purple the blue predominates; in the violet or lilac, the red and blue are nearly alike; but in the crimson the red is sure to prevail.

506. *To make half violet or lilac.*—For every pound of silk, take one pound and a half of archil, mix it well with the liquor; make it boil a quarter of an hour, dip the silk quickly, then let it cool, and wash it in river water, and you have a fine half violet, or lilac, more or less full.

507. *Different ways of dyeing peach blossom.*—Clean your silks well, and rinse them in warm water, to extract the soap that may remain, then slightly alum them; next pass them through purple archil in warm water, and this will be of the colour of red violet, the silks should then be taken out, and a sufficient quantity of solution of tin added, which will immediately turn this liquor from a violet to a bright red.

Some dyers, for a silk spencer, &c. pour a quarter of a pint of archil, or less, into a small pan, and dissolve a sufficient quantity of alum, and a little tartar, which they add to this archil dye, to give it that shade of the peach blossom which may be required.

Your silk having been washed in soap and water, and rinsed in warm water, is to be dipped in this liquor till it receives the shade intended. Others do it by preparing the liquor as

here directed ; and add a trifling quantity of the solution of tin in warm water, passing the silk through this previous to dipping it in the dye. The quantity of solution used should be barely sufficient to acidulate the water. This colour may be done also with cochineal and safflower, and it is then fast. You may proceed as for scarlet, only adding some prepared safflower dye, and a little old cochineal liquor, if you mean to dye very deep.

508. *To make flesh colours.*—Flesh colours are done with cochineal. In preparing your silk, wet it first in warm water, then in warm water again, in which a small quantity of alum water, and a smaller of tartar have been dissolved. Both these together must hardly make the water taste. Then if you have been dyeing common red with cochineal, dip a small quantity of this old dye into your pan ; but if too strong, add hot water ; then put in your goods, and handle them to colour. If you want them deeper, strengthen your liquor and your dye.

509 *To dye thick silks, satins, silk stockings, &c. of a flesh colour.*—Wash your stockings clean in soap and water, then rinse in hot water ; if they should not then appear perfectly clean, cut half an ounce of white soap into thin slices, and put into a saucepan half full of boiling water ; when this soap is dissolved, cool the water in a pan, then put in the stockings, and boil them twenty minutes ; take them out, and rinse in hot water ; in the interim, pour three table spoonfuls of purple archil into a wash-hand bason half full of hot water ; put the stockings in this dye water, and when of the shade called half violet or lilac, take them from the dye water, and slightly rinse them in cold water ; when dry, hang them up in a close room, in which sulphur is burnt, when they are evenly bleached to the shade required of flesh colour, take them from the sulphuring room, and finish them by rubbing the right side with a clean flannel. Some persons calender them afterwards. Satins and silks are done just the same way.

510. *To dye a buff, inclining to a dull orange.*—This colour has been much worn of late, and is known to the trade

by the name of indian buff. There are several ways of dyeing it; the principal of which may be noted in the three following receipts.

This colour is generally applied upon cotton, and silk, either woven together or seperate, The first receipt is the most expensive; nor would I recommend it, excepting for a very valuable article, such as an Indian shawl or scarf, and then the dyeing materials should be first boiled; when they have given out their colour to the water, check the boiling, and put in a pattern; in five minutes it will be seen what colour the contents of the copper will afford. If such a colour as is required put in your shawl, allowing for what alteration the lime will effect in the saddening.

511. For a common size shawl.—For a common sized silk shawl, boil, for half an hour, from one to two ounces of weld; take this dye liquor, and put it into a pan, to which add a quarter of an ounce of alum; when dissolved, put in the shawl for half an hour; draw it out, and rinse it in cold water; in the meantime dissolve a quarter of an ounce of annatto, with an ounce of pearl-ash, in a teacup of water, add this solution to a small pan of warm water; put in your shawl, and keep handling it for half an hour at least; then take it out and pass it again through lime water; lastly rinse it in cold water, which finishes it. Dry in a warm room, and send it to a calender's

This colour will wash well if a small quantity of pearl-ash be used with the soap-liquor, and it be at last rinsed in pearl-ash and water.

512. For dyeing indian buff.—This colour is dyed by giving the silk or cotton a ground colour of fustic, which colour is saddened with lime; a fresh copper is prepared with old madder liquor, into which the silk is to be dipped now and then. It must afterwards be returned into the fustic liquor, and, at last, saddened in lime water. It is somewhat singular that it is necessary that lime should be used to produce the shade of Indian buff. There are other means of procuring this shade, but those already specified are the principal. The

precise quantity of ingredients cannot be given, but it must entirely depend on the judgment of the person performing this process.

513. *London smoke colour.*—There are several ways of dyeing this colour; it is, in fact, a full bodied grey brown. It may however be termed a dingy shade of black, and is of the colour of smoke ascending from chimneys were coals are burnt.

For a silk spencer, boil in your copper about two ounces of ground sumach, and add a very small quantity of archil: then dip out into a pan, and handle your silks after they are well cleaned for about twenty minutes; lastly, add a small portion of old black silk, cotton, or woollen liquor, &c. copperas being dissolved, will answer as well.

514. *On dyeing blacks and brown.*—It is immaterial how great the quantity of dyeing materials are, which are used in dyeing either black or brown, so that it is according to proportion. For blacks I would always advise a good body for finishing.

515. *For a black silk gown.*—When your copper boils put in half a pound of alder bark, and a gall or two, bruised: boil (or simmer) your silks in this for one hour; then take them out and cool them well, by hanging them up in the air. In the interim, add a piece of green copperas, as big as a small horse bean; when this is dissolved, cool down your copper, by adding cold water, and put in your goods, keeping your copper on the spring for half an hour, all the while handling your goods over with a stick: this is what is called bodying, stuffing, or preparing the silks to receive a black dye. Then draw them out again, and cool them and wash them. In the interim, add to your copper 6 ounces of fustic, half a pound of logwood, and a quarter of a pound of alder bark; put in your goods, and simmer them an hour. After handling them well, draw them out, and add half an ounce of green copperas, and two ounces of logwood; put in your goods again, and simmer for two hours. If the liquor in the copper, on the goods being taken out, does not appear of a jet black, more green copperas must be added.

and boil half an hour, taking care not to spoil the liquor with too much copperas. If the silks should be wanted of a blue black, a little more logwood and a small lump of blue vitriol should be added; and the silk may remain in the copper all night, if the copper is not wanted. Next morning, wash and dry.

N. B. You may add a little more fustic, or rather less logwood, as this recipe specifies.

Should the silks appear rusty, or what is known to the dyers by the name of copper burnt, or foxy, it is customary to pass them through warm water into which about half a tea-spoonful or less of oil of vitriol has been thrown; this will leave the silk, of a beautiful raven black. If the silk is a soft and thick one you may make a thin soap lather, and pass it through; but this must not be done when it has been passed through vitriol. And if care be taken to boil the silk in this process, without any of these alteratives, it will be a most beautiful black, and wear a long while. The oftener the silks are taken out and cooled, the blacker they become.

Observe, bullock's gall and hot water are preferred; but the silk must be cooled from the dye-liquors before it is rinsed in gall water, that the dye may be consolidated.

516 *For dyeing silk stockings black.*—These are dyed like other silks, excepting that they must be steeped a day or two in bark liquor, before they are put into the black silk dye. At first they will look like an iron grey; but to finish and black them, they must be put on wooden legs, laid on a table, and rubbed with your oily rubber, or flannel, upon which is oil of olives, and then the more they are rubbed the better. Each pair of stockings will require half a table spoonful of oil at least, and half an hour's rubbing, to finish them well. Sweet oil is the best in this process, as it leaves no disagreeable smell.

517 *For dyeing straw and chip bonnets.*—Chip hats being composed of the shavings of wood, are stained black in various ways. First by being boiled in strong logwood liquor three or four hours; they must be often taken out to cool in the air and now and then a small quantity of green copperas must be added to the liquor, and this continued for several hours.

The saucepan or kettle that they are dyed in may remain with the bonnets in it all night; the next morning they must be taken out and dried in the air, and brushed with a soft brush. Lastly a sponge is dipped in oil and squeezed almost to dryness; with this the bonnets are rubbed all over, both inside and out, and then sent to the blockers to be blocked.

Others boil them in logwood and instead of green copperas, use steel filings steeped in vinegar; after which they are finished as above.

518. For dyeing straw bonnets brown.—Take a sufficient quantity of Brazil wood, sumach, bark, madder, and copperas, and sadden according to shade required. See also the Cotton Dye for Browns.

519. For dyeing straw bonnets black.—Wash the bonnet in a little warm chamberlye and water, rinse it in cold water, and take for one bonnet about a quarter of a pound each, alder bark, and logwood. Boil the bonnet in this liquor one or two hours; then take it out, and add a small piece of blue vitriol, as big as a small tick bean; enter the bonnet and boil for half an hour longer; then take it out, cool it in the air, and add two ounces of fustic chips; boil these half an hour then put in the bonnet again, and put in, at the same time, a piece of green copperas, as big as a small bean; boil again for one hour; take the bonnet out and cool it in the air; and, if the liquor remaining in the boiler or copper be of a jet black, you may put in the bonnet, and let it remain all night: but if the liquor be not quite black, add a handful more of bark, and a little logwood and green copperas. The next morning take out your bonnets and dry them in the air; when dry brush them with a soft brush, and afterwards rub them with an oily cloth, (called by the trade an oily rubber;) lastly, send them to the blocker's to be blocked. If this recipe be attended to, the bonnet will be a most beautiful raven black. It is customary with some hat dyers to steep them in oak saw-dust, one night previous to their being dyed, which is a good method and generally esteemed; more copperas may be used than is here specified; it may be used in the copper before the article is dyed.

520. *For dyeing and cleaning feathers.*—Feathers to be dyed, must first be cleaned, by passing them through the hands, in warm soap and water, and by giving them fresh liquors of soap and water, and at last rinsing them in warm water. Previously to their being dyed, it is necessary that they should be soaked in warm water for several hours. The same degree of heat should be kept up but the water must be little more than blood warm. If for yellows or reds, they must be alamed in cold alum liquor for a day or two, according to the body of colour you require the feathers to imbibe; then immerse them in your dye liquor.

For some drab colours, it will be necessary to use the alum water at a blood heat: its being too hot would injure the feathers. For dyeing browns, archil, &c. are used instead of woods, barks, cudbear is also used. After a feather has been dyed any dark brown or other dark colour its nature is lost, and consequently its texture. It is unprofitable for the wearer to re-dye them, and difficult even for a dyer to perform. A feather by being beaten across the hand soon dries; by this means feathers are as easily dyed as silk or woollen, and there is greater certainty of obtaining the desired shade. The only difficulty in dyeing feathers is in compounding the dyeing materials, and making a homogeneous liquor of them, so as to produce the desired shade, after being saddened or made of a darker colour by means of green copperas, which is generally used to darken brown greys, blacks, slate colour, &c. Sumach and fustic, or sumach alone, is the general grounds of browns: the red as I have before observed, is obtained by archil: and the black hue by green copperas, in warm water: after the feather has been put into the copperas water, it may be returned again into the dye water, and back again into the copperas: but care should be taken each time that the feather is rinsed from the copperas water, before it is again returned into the dye liquor, otherwise the copperas would spoil it. Care also should be taken not to use too much copperas in saddening colours, as it injures the texture, and prevents the colour from appearing bright: and if the ground colour be not of a sufficient body, the saddening or copperas will make it uneven.

The same preparation as would dye silk, of the same colour will dye feathers; in short, feathers as well as silk, being

animal substances, are more alike in nature than any other two bodies, either animal or vegetable. You must remember that in dyeing silks the water is used hot, for most colours : but feathers must be always dyed in cold liquors, except for black, the dyeing materials being first boiled, and then let to cool ; your feathers must then be put in, and when this liquor is exhausted add a fresh one, pouring off the old liquor. For dyeing feathers black, the same liquor as for silks must also be used, but with this difference, that for the feathers, the dyeing materials must be boiled for two hours, and then used as warm as the feather will bear, heating the liquor four or five times. It often happens that a feather is four or five days dyeing black ; but violets, pansies, carnations, light purples, light blues, &c. are dyed in ten minutes. Light blues are dyed in chemic blue : the greys, in galls and green copperas ; the violets in warm archil and water ; the greens with ebony wood, in warm water and chemic blue. These are to be finished by being gently beaten out over the hand, and this will dry them : just before they are dry it is requisite to curl them, which is done with a round edged knife.

521. *The finest blue, on feathers.*—Is however obtained by means of the silk *blue vat*.

The feathers should be well cleaned in soap and water, then rinsed in water. By these means the feathers will be sufficiently soft ; next boil as much water as will serve to dye it, to which add (for one feather) half a teacup full of purple archil ; simmer the feather twenty minutes, until it is of the full violet colour, then take it out of this dye, and immerse it in the vat. According to the shade required so deep must be the shade of the violet ; a full violet, by remaining in the vat long enough, will dye a full blue.

There are various other ways of dyeing blue on feathers ; for instance : clean the feathers as described in the preceding receipt, and when your water boils, throw in a teaspoonful of tartar, and as much chemic blue as will dye the desired shade of blue. Cool down the copper by means of cold water, and put in the feathers, and keep the water much below a hand heat, and you will have a blue of the brightest dye, more or less full, but of the false dye.

522. *Another receipt.*—Use blue vitriol and logwood, as before described for silk and woollen, at a blood heat; this also is a false colour, but very bright.

523. *Brown feathers*—Next require our consideration. Neither cam-wood, bar-wood, nor the other woods will do; but madder, archil, walnut root and rind, and green copperas are used; brown being a shade of black, and such a number of combinations entering into it, must be dyed as black is, only not adding the copperas till the feathers have been one or two days in the liquor. The copperas, in the browns, serves to blacken them. Galls and sumach are always used for browns. If for red or brown madder, archil, &c. are mostly used, and saddened by copperas. In fawn colours, bright root colours, &c. fustic is also used; but for chocolate, coffee, &c. yellow is omitted; and consequently fustic, or other yellow dyeing materials are not requisite. If the stem or quill is required to be stained, the feathers must remain longer in the dye-water, and a little heat may be applied.

524. *For orange, moidore, &c.*—These colours are very simple, and are produced by annatto and pearl-ash, which dye the feathers of a buff colour; they are reddened or arranged by mean of acids, as vinegar, cyder, lemon juice, tartar, and bran water.

Oil of vitriol, &c. are also used, and especially vinegar, being the most simple; green copperas is also applied as a corrective: thus annatto and turmeric are used in dyeing bright reds and scarlets, as they redden by means of the acid liquor, and, at the same time, add beauty and fulness to the colour.

525. *Chocolate and full rich browns.*—These are produced by archil, logwood, and sumach, boiled together, and the liquors heated at different times. The feather must be dipped as hot as it will bear, without injuring its texture. Fustic is also used when for chocolate brown, and copperas; and, sometimes pearl-ash in the saddening.

526. *To clean black feathers.*—Pour a pennyworth of bullock's gall into a wash-hand bason: pour warm water on this,

and run your feathers through it: rinse in cold water, and finish them as you would other feathers.

527. *To clean brown fawn colour, and white feathers.*—All these colours, are cleaned after the same method. Suppose a plume of three feathers is to be done, take a large sized wash-hand bason, cut two ounces of pure white soap into thin slices, and pour boiling river water upon it; add to these a piece of pearl-ash, as big as a pea; when this soap water comes to a hand heat, keep passing your feathers through it, and draw them gently between the hand. When this liquor is spent, a second must be made of half the quantity of soap, but of an equal quantity of ashes; as at first, you must run your feathers through this liquor, and, at last, rinse them in cold water, and beat them across the left hand, holding the feathers in your right; and thus, by continuing this ten minutes, the feathers will be nearly dry: then, with a fruit knife, or any other round edged knife, take one or two of the fibres at a time, and scrape them with the knife, turning them round as you want the curl to be; then, if wanted flat, put in a large book to press.

528. *For cleaning copper or brass utensils used for dyeing.*—After you have been dyeing any colour in your copper or brass boiler, it is frequently tinged with the dye used; it is therefore customary to clean these utensils out with a small quantity of oil of vitriol and water, a little fine sand, or ashes, and a coarse flannel cloth; it must afterwards be rubbed quite dry.

529. *How to take the stain of the dye from the hands.*—Take a small quantity of oil of vitriol and pour it into some cold water, in a wash-hand bason, and wash your hands in it without soap; the dye will then come off. You may afterwards cleanse them completely in hot soap and water, taking care that all the acid is washed away before the soap is applied.

530. *To take off the stains of light colours, reds, greens, blues, &c. from the hands.*—Wash your hands in soap and water, in which some pearl-ash is dissolved.

N. B. If the vitriol water is not made very strong, it will not injure the most delicate hand, nor leave any red or coarse appearance.

ON DYEING COTTONS, DRESSES, BED FURNITURE, &c. &c.

531. *For bleaching cottons.*—Cottons are bleached and made white by running them through muriatic acid and water, the dyeing of them is somewhat similar to silk. It would be impossible to give recipes for every shade, as this would fill a large volume; but the reader is reminded, that from the chief colors already described, every hue and shade may be produced. The receipts which follow, are for the colours most commonly wanted.

532. *To dye blue on cotton and muslins.*—The theory of this is described in the directions for giving the azure to counterpanes.

You must first wet out your cottons in warm water, and hang them in your vat; this is done by having a stick put across it. Having strings pinned to the articles, hang them on the sticks, and let them down an inch or two below the surface of the liquor: your cottons are to remain in a longer or a shorter time, as required, now and then taking them out and changing ends, that the dye may take off evenly. When your article is dyed, take it out and rinse it in cold water.

As it may not be convenient for housekeepers in general, to erect a blue vat for the purpose of dyeing their muslins, and cottons, the following is a method of dyeing those substances with *chemic blue*. The blue is not a fast colour, but answers for many purposes.

Take some chemic blue, put it into a pan of convenient size, but large enough to hold twice as much as you intend to use, in order that there may be room to stir it; add some pot-ash or other alkali by degrees, till, after several trials, you find it

does not taste sour, or until the acid is entirely saturated, or neutralized, Take of this neutralized liquor enough to dye what goods you require, and put it into a tub of water, about blood warm, and by dipping a small piece of cotton into it, you may judge the depth of the colour.

To dye with this *Chemic Vat*, for so it is called, first wet out your goods in warm water, then immerse them in the dye water, and handle them to the shade required.

Blue when dyed this way should be dried in a warm room; if book muslins, they must be pinned out: if cotton furniture it must be made stiff with starch or flour, and afterwards be glazed, sleeked, mangled, or calendered.

533. *Remarks on this dye.*—If the acid of the vitriol is not overcome by the pearl or pot-ash, the goods worked in this dye will be rotten; the liquor should rather have a salt than an acid taste, and then you will be sure of its working well; but the nearer you can bring it to neutralization the better will be the effect.

534. *To dye a puce colour on cotton.*—Boil the cotton in archil to a full violet, then handle it quickly through your blue vat; it must then be taken from the vat, rinsed, and passed through weak sumach water, and saddened in cop-peras.

535. *For a red puce.*—Soak your gown, &c. in hot water, with half a pound of sumach, all night. Take it out next morning, and rinse it in cold water; then pour half a pailful of boiling water on a pound of purple archil, handle your goods through this for half an hour. If it be too blue for the shade required, dissolve about a quarter of an ounce of alum in water, run your goods through this to the shade required. If it should now be too red, have a pan with warm water, in which a small bit of pearl-ash has been dissolved, and it will blue it again to colour.

536. *For slate-coloured cotton.*—First wash your cotton clean in soap and water, rinse in warm water; then put a half pound of sumach in a sieve, and pour boiling water over it, let it drain into a pan; put in your article, and let it steep

for two hours, now and then handling it, that it may take the colour evenly : then take it out, and immerse it for five minutes in a pan of warm water, in which a quarter or half an ounce of green copperas has been dissolved. It will then be a lead grey, more or less full. But, to turn it on the blue slate, draw your gown from that liquor, and run it through a decoction of weak logwood liquor, made by boiling an ounce of logwood chips, in a quart of water, with a small bit of pearl-ash, and throwing it into a pan of warm water : handle the gown in this till it comes to the shade required ; wash and dry it in the air.

537. *Another grey, called pearl or silver grey.*—Fill your copper or boiler half full of river water ; when it boils, take out half a pailful, and strain it through a quarter of a pound of sumach ; put in your gown to steep in this liquor for half an hour. In the mean time, throw a handful of wheaten bran into the copper, and boil it five minutes, then put two drachms of powdered alum into your copper. This will throw up all the scum, which must be taken off carefully with a bowl ; take out your goods from the sumach liquor, wash them clean in cold water, put them again into the copper, and let them simmer ten minutes, having previously boiled two or three ounces of logwood for half an hour, with a quarter of an ounce of pearl-ash. The decoction should be boiled some time before it is used, and kept in a jar. A small quantity of it is to be added to the bran water in the copper ; cool down your copper, put in your goods, and let them simmer, handling them well, and adding the decoction to the colour required ; lastly, take them out, and let them be rinsed slightly, and dried in a warm room.

Every gradation in the shades of slates or grey is made as in the foregoing receipts, by adding a larger or smaller quantity of dyeing materials,

538. *For an olive green.*—Let the article be first washed in soap and water, then wetted out in warm water ; then boil two ounces of chipped logwood, and three ounces of chipped fustic together for half an hour ; dip out your dye liquor, and

put it into a pan with hot water; put in your goods; dissolve two drams of verdigris in a tea cup full of warm water, which put into a pan of cold water; take your gown from the dye, and run it through the verdigris water, well handling it for ten minutes; take it out, and wash it in clean water, then through the dye liquor, and again in the verdigris water, and so continue this process till you obtain the colour required, only taking care to wash it out of the verdigris water before you put it into the dye liquor: dry it in the shade.

539. *For yellow cotton.*—To make a lemon yellow, first wash your article well in soap and water, then rinse it in warm water. For every yard of stout cotton, dissolve a piece of blue vitriol as large a horse bean, in boiling water; and, when the water is at an hand heat, put the cotton in, and handle it well for half an hour. In the interim, take a quarter of a pound of weld for every yard of cotton, and boil it well for half an hour; dip the liquor out in a pan, and handle your cotton through this till it comes to the fulness required; take it out to cool, and when cold, wash it out, and dry it in the air.

540. *For a full yellow.*—Wash your goods well in soap and water, and rinse in warm water; then dissolve from a quarter to half an ounce of alum in a pan of boiling water; when at a hand heat, put in your goods, and let them remain for two hours, handling them now and then: boil a sufficient quantity of weld, and dip the liquor out in a pan; take your goods from the alum water, and put them into the dye, and handle them well for one hour, or till they are come to the shade required: wash and dry in the air.

541. *For a gold colour.*—The articles must be washed, as above, with soap and water, and you may use, or not use, a small quantity of sugar of lead with your alum; after preparing, boil with weld, to every yard of cotton, a quarter of an ounce of turmeric; dip your liquor into your pan, and handle your goods as directed; wash and dry in the air.

542. *For an orange colour.*—The process in this is the same as above, only, instead of turmeric, put in the same quan-

tity of Spanish annatto dissolved in pearl-ash and warm water ; when this is done, throw it into your copper, then dip it out into a pan, and proceed at a hand heat, as for yellows. Dry in a warm room. Some dyers run it through weld for half an hour before they add the solution of annatto.

543. *Nasturtium*.—This is the same as orange, only not so strong of weld liquor, but rather more so of annatto and pearl-ash.

544. *For red cottons*.—Let your gown, or other article, be washed in soap and water, and rinsed in warm water ; then take a quarter of a pound of sumach, and run some boiling water through it into a pan ; steep your gown in this for two hours ; dissolve two ounces of alum in a pan of hot water ; take your gown and wash it clean out of the sumach, and put it into the alum water, and let it remain in it two hours at a hand heat, handling it often ; put in your copper one pound and an half of peachwood, and a little Brazil wood ; boil these well for half an hour ; strain your liquor through a sieve into a pan, take your gown out of the alum, and give it a slight rinse in cold water ; put it into the pan of dye liquor, and handle it at a hand heat for half an hour or an hour, still adding fresh liquor out of your copper, till it comes to the fulness required ; wash it in the clear of the dye liquor, and dry it in a warm room.

545. *For a madder red*.—Some dyers use the best madder for red cottons, and put in the pan, at a hand heat, some Brazil liquor.

546. *For a red shawl, inclining to crimson*. First wash your shawl in hot soap and water, and rinse in warm water. Into this put two or three ounces of sumach at a hand heat, for twenty minutes. In the interim, boil two ounces of madder for about twenty minutes, or simmer for half an hour. Next put your shawl in a liquor, consisting of two ounces of alum dissolved in boiling water, and handle it now and then. After keeping it in for one or two hours, drain it, and let it cool ; then rinse it slightly in cold water, and draw your madder

liquor from the copper into a pan; put in your shawl, and handle it for twenty minutes, or longer. If it require to be fuller coloured, dip out of your Brazil tub half a pint or less of fermented Brazil liquor, and add to your madder liquor in the pan. When dyed enough, take it out, rinse it in cold spring water, and hang to dry.

547. *A plum-coloured cotton.*—The article for this must be boiled in purple archil, and passed through the vat to the shade required; then through archil; and when cold, rinsed in cold water. If this should be too blue, it may be rectified by passing it, to the colour required, through warm water, in which a drop or two of oil of vitriol has been added: sometimes, as for reds, sumach is first given. If for very light blues, put into a pan half full of warm water, a sufficiency of the liquor of the vat, and the cotton may be dipped here into colour.

548. *False purple, plum colour, &c. on cotton.*—This is done by passing the goods through strong alum liquor for two hours; then put into your copper a quarter of a pound of logwood; boil them half an hour; cool down your copper, put in your article, and simmer it for half an hour; then add pearl-ash, which will sadden it to the depth of colour required. All gradations of shades may be made this way, from the violet, the pansy, &c. to the darkest purple.

549. *Another method.*—Put archil and pearl-ash in your copper, and this, kept at a hand-heat, dyes nearly the same colour.

N. B. No blues, purples, plums, &c. are half so fine as those dyed in a vat.

550. *Brown cottons.*—Wash your cottons well in soap and water, then rinse them in warm water; pass them at a hand heat, through sumach in a pan for an hour; take them out and rinse, and pass through alum water for twenty minutes. In the meanwhile boil braziletto in your copper for half an hour; cool it down, put in your goods, and keep the liquor at a hand-heat till it has taken the desired redness; then take out the goods and handle them through a pan of warm water,

in which a little green copperas has been dissolved. In the meantime add madder, cam-wood, or red-wood to your copper, with more sumach, if required, for half an hour; then cool down your copper, and keep it at a hand-heat; lastly put in your cottons, and boil to colour.

551. *Another brown.*—Supposing the article a gown, you must wash it and rinse it in warm water. Then boil a quarter of a pound of sumach, one ounce of madder, and three ounces of fustic, saddened by green copperas. When dissolved, and thoroughly mixed with the liquor, cool down your copper and put in your gown; keep the copper at a hand-heat. Some use a great body of archil in dyeing these browns; by these different ingredients the shades may be varied without end.

Walnut root, and the green rind of walnuts, &c. are used for dyeing cottons brown; so are logwood and sumach, in dyeing chocolate, &c. which are saddened by copperas. When the browns are too red and dull, it is customary to add a very small quantity of red, oak dust gives the greatest body.

552. *To dye a cotton gown black.*—The receipt that follows, I consider the best for black cotton; but I have dyed black various ways: the first method I followed for a considerable time; but oak dust gives the greatest body.

For a gown, take half a pint of ground sumach, put it into a sieve, and place it in pan; then pour boiling water on it, and let the sumach water run into a pan; put in your gown, and let it steep for six hours; dissolve two ounces of green copperas in another pan of cold water, into which put the gown; handle it well, and let it remain for two hours; then take it out, and slightly rinse it; next take about three or four ounces of slacked lime; put this in a pan of cold water, and let it stand for a quarter of an hour; pour off the clear, into which put your gown, and handle it well for ten minutes; take it out and wash it; prepare your copper with half a pound of chipped logwood, and one pound of fustic; boil these half an hour; then cool your copper, and put in your gowns for half an hour; take it out and add an ounce or more of copperas; put in the gown again for half an hour; take it out, cool it, put it in again for twenty minutes, taking care to handle it well all the time; then take it out, wash it, and dry it. If it should not

dry so black as you wish, leave your liquor in the copper, and add a little more copperas and chipped logwood, and boil it again for an hour, handling it well all the time; if it should not appear to have body enough, add an ounce or two of sumach and a little more copperas; should the gown when dry have too much purple, put a small quantity of alder bark, and simmer again for an hour, and add a small quantity of copperas, if necessary.

Observe, more copperas may be added; but if once the dye is poisoned with using too much copperas, not only the texture of the cotton will be injured, but the woods will not give their colour, and a good black can never be made.

553. *To dye linen, cotton, and thread, black, after the French method*—First steep them in galls or sumach six hours; then alum then strongly, dip them in a weld-liquor, and make a strong decoction of logwood in your copper, to which add a quarter of a pound of blue vitriol for every pound weight of the substances to be dyed. Your goods must be well washed in cold water, but not wrung hard. They must be afterwards dyed in madder, using half a pound of this dye for every pound weight of goods to be dyed. The articles must then be dipped in a boiling soap-liquor, handled ten minutes, and dried in the air.

Cotton velvets are dyed as plain cottons are, and silk velvets as plain silks; both are finished by being pinned out, and then well brushed backwards and forwards before or near a fire, or in a warm room. Crape are finished by being passed through a little gum, or red leather cuttings; size them well, beat them between the hands, and let them be pinned out as on a frame.

554. *To finish cottons and silk velvets*.—This is done by brushing them when almost dry, near a fire; and if pinned out on a table, (for want of a frame), rub them with a hard brush to and from you, till the nap or plush is raised upright, and every hair appears to stand in its place. Velvets are seldom stiffened; when they are, a small portion of gum or isinglass must be dissolved in water, and lightly rubbed on the wrong side of the velvets, with a sponge wrung almost dry.

ON DYEING WOOLLENS, STUFFS, GENTLEMEN'S AND LADIES' CLOTHES; AND DIRECTIONS FOR MAKING A WOAD VAT.

555. *On the woad vat.*—I will here give the process of the woad and other blue vats, as taken from the work of a very ingenious dyer. The process here laid down I have practised myself with the greatest success; though (excepting the woad vat) the other blue vats, may be made fifty different ways, always remembering that the cold vat is mixed with pearl-ash, green copperas, lime, madder, and bran. The hot vats are prepared either with water or urine; if with water, pearl-ash and a small quantity of madder must be added: if with urine, alum and tartar must be joined to the indigo. Both of these vats being principally intended for wool, require a moderate degree of heat; but, at the same time, strong enough for the wool to take a lasting dye, such as will withstand the destroying action of the sun and air.

I beg here to observe, that the liquor of all vats appears green beneath the surface, as also do all woollen cloths, as soon as they come out of any vat; but, being exposed to the air, they will immediately turn blue; and were it not so, the dye would not be lasting.

556. *For a woman's Pelisse.*—When your water in the copper boils, add from a quarter to half a pound of fustic, from two ounces to four of sumach, and from two to four ounces of logwood or more, as you require the shade to be; but if it requires to be of a green brown, a larger proportion of fustic and sumach must be used. Then the pelisse is to be taken out, and a little verdigris added: if the verdigris does not green it enough, add logwood chips, as you require the colour to be deeper. Green copperas also will sadden this colour, and lime browns it.

It is almost impossible to give the exact quantity for a garment, as the goodness or badness of the drugs would in these colours cause so great an alteration, as not to resemble the colour intended. But a single trial will be sufficient to guide you. The article must be boiled as for brown; but it often does not require above an hour, and may be saddened, or made darker, by copperas; and, if the dyeing liquor does not draw

on, or strike fast enough, a little verdigris must be dissolved in water, and added to your boiling water, which will cause it to adhere. For olive green, you may use a little alum with the fustic.

557. *A process of dyeing blue by logwood.*—This is quite a false colour, and should not be used where the goods are to be exposed much to the air, but is very beautiful in appearance.

When your water boils, add for a pelisse, two pounds of logwood; when this has boiled half an hour, add a lump of vitriol, from one to two ounces, or more; when this is dissolved, cool your copper down, and put in your goods, and boil from one hour to an hour and a half, till the colour appears even and regular all over. Sometimes half the time dyes it.

558. *On dyeing of yellows on stuffs and woollens.*—I must begin this receipt by observing that all cloths, previous to being dyed, should be well scoured, and also be run through warm water, before they are put into the copper to be dyed.

This colour is the first I have treated upon which actually requires any preparation, and which without it would not only have a dull appearance, but the colour would neither be even nor bright.

Supposing the garment to be dyed weighs two pounds, your copper should be made to boil, and six or seven ounces of alum put in it, with two ounces of tartar; when this is dissolved, cool down your copper with cold water, and put in your goods and boil them, if you have time, from an hour and a half to two hours, but it may often be prepared in an hour, if it has been well stirred in the copper; this liquor is then thrown away, and your copper filled and boiled. When it boils, put in about five or six pounds of weld; the French is best. When this has boiled half an hour, more or less, till its virtues are extracted, take it out, put in your goods, and boil to colour. Sometimes half an hour's boiling does, or from that to two hours will do; but in this receipt the preparing liquor is very strong therefore the colour will strike in quickly. Supposing you want lighter shades as lemon yellow, pale yellow, straw, &c. half the quantity of alum and tartar will do; when dyed rinse in cold water. This receipt is for a full bright yellow.

The annexed engraving represents the utensils necessary for dyeing and scouring.



- A. The Wall in which the Peg is put.*
- B. The Tub.*
- C. The Doll.*
- D. The Blanket being wrung.*
- E. The short Stick by which the Blanket is wrung.*

559. *Of reds.*—This is a colour that requires a preparation of alum and tartar before it is dyed.

The first of these reds is done with madder, and is simple and easy.

Supposing the article to be dyed weighs about two pounds, or thereabouts. When your copper boils, put in to your boiling water, about six or seven ounces of alum, and about two ounces of red tartar. When dissolved put in your goods, and boil from one to two hours, handling well every fifteen minutes and always keeping them under water, when not handling; then take them out and fill the copper with fresh clean water, pouring off the preparing water; when this water gets pretty warm, so that you can bear your hand and arm in it, put in six pounds of the best madder, which must be well stirred and

broken in the copper; when the liquor is of a good red dye, which will be within half an hour, put in your goods, and handle them well one hour, or thereabouts. This will produce a bright red; but if you want to have a fine red, you should decrease the quantity of madder, and add decoction of ground Brazil wood. If you want them to be of a crimson cast, add purple archil to your pattern. The above is the cheapest red that is dyed.

560. *Reds from brazil wood alone.*—The water of preparation must, for each pound of wool or woollen stuff, consist of four ounces of alum and one of red tartar; the hardest well-water must be used. The Brazil should be ground or rasped and boiled at least an hour before the goods are put in; and they should also boil in the preparing-liquor, for two hours at least, and then be cooled from the preparing-liquor previous to their being put into the copper in which the Brazil has been boiled. They should be rinsed in two waters, and dried in the shade, or in a warm room.

561. *For crimson in grain.*—This is easily made: your copper being ready to boil, put in for each pound of cloth or stuff two ounces and a half of alum, and an ounce and a half of white tartar; let this boil a minute or two; put in your goods, and boil them for an hour and a half; they are then to be taken out, and cooled in all places alike. The preparing liquor being emptied away, your copper is to be filled again with fresh water, and, when about lukewarm, put in about an ounce of cochineal, finely powdered; when this boils, cool it down with a pint of cold water; put in your goods and boil an hour or an hour and a half, as you may see occasion. They must be then taken out, washed and hung to dry. If a lighter shade is required, use less cochineal and less alum and tartar. A larger proportion of alum may be used, but not of tartar, as tartar would obscure the red, and leave a brick colour.

562. *For a puce.*—The following will produce a very beautiful fast coloured puce, which is, in fact, a purple brown; the red spuce may be termed a brown violet, or a *gris de lin*, and these are much worn.

Supposing the garment to be a pelisse; when your copper

boils, add a quarter of a pound of the best Cam-wood, three ounces of sumach, a quarter of a pound of logwood, and from half a pound to a pound of the best purple archil; if you should want it of a deeper blue, add more archil: a small lump of pearl-ash or blue vitriol purples it. If required to be of the red cast, some dyers use either a small quantity of oil of vitriol in the copper, or they pass the article through oil of vitriol, in warm water, after it is dyed. But to prevent any occasion for this, be sparing of your archil, and use no pearl-ash. I dyed upwards of seventy pelisses in one season after the above method. You may proportion your ingredients to the colour required. Cam-wood, as I have before observed, gives a red brown; sumach a greenish grey brown; archil a blue violet; and logwood nearly the same colour; handle well, and boil one hour and a half; then wash and dry.

593. *A pretty red brown, remarkably bright; and the cost of the dye not more than sixpence.*—For a middle sized woman's pelisse; when your copper boils, put in the following dyeing materials:

Half a pound of ground cam-wood
 2 ounces of sumach (ground).
 1 ounce of logwood chips.
 1 ounce of alder bark.
 2 ounces of chipped fustic.

N. B. A larger quantity of ingredients may be used, but they must be in the same proportion as mentioned in this receipt.

When these ingredients have boiled half an hour, cool your copper by throwing in a pint of cold water; put in your goods and boil from one hour to an hour and a half; take them out, and add from half an ounce to one ounce of green copperas, according as you wish the colour to be darker. Lastly, adding a tea-spoonful of powdered argol, take out your goods, and rinse them in one or two clean waters, and hang it in the air to dry; send them to the press to be finished.

564. *To dye woollen stuffs black.*—The process of dyeing black, is one of the most tedious, on account of the time it takes which is at least ten hours.

565. *To dye a pelisse black.*—Fill your copper with soft water to the brim, and when it begins to boil, add

4 ounces of logwood,
1 ditto of sumach.
3 ditto of alder bark.

When these ingredients have boiled half an hour, put in your pelisse, always recollecting to handle it over every ten minutes which is done with a short stick; when you have done handling it, keep it under the water, and boil it this first time an hour, then take out your pelisse, and hang it across your horse or stick to cool. In the interim, take a bowl of your boiling liquor out, and put therein six ounces of green copperas to dissolve; when dissolved, put almost two thirds of it into your copper, and mix it well with the liquor, then check your copper, by throwing in as much water as may have evaporated (or old alack liquor, if at hand) put in your pelisse handling as before, with a stick, &c. at a boiling heat, during an hour, then it is to be taken out again, and cooled in all parts alike.

In the interim add the remainder of your dissolved copperas check your copper again with cold water, or old liquor, and put in your pelisse again, and boil as before for two hours: then cool it again. While the cooling is carrying on, put into your copper, two or three ounces of logwood, two or three ounces of bark, an ounce of green copperas, nearly two ounces of pearl-ash and about half an ounce of powdered argol. These ingredients must be made to boil one hour; when the copper must be checked as before, and the pelisse put in, and made to boil one hour, keeping it handled as before. Instead of the pearl-ash in this process, chamber-lye may be substituted. If the cloth should not be sufficiently boiled, or should seem not to be black enough, you may add a little more bark, and a little more logwood and copperas; then put in again, and boil it an hour; afterwards, having cooled your cloth, put it again into the copper, and there let it remain till next day, but if you are in a hurry, there is no occasion for this: Lastly rinse your pelisse, &c. in three or four cold waters. If this process be regularly followed, it will produce a most beautiful black.

460. *For dyeing black cloth dark green.*—Clean your coat with bullock's gall and water, and rinse in warm water, then make a copper full of water boiling hot, and take from one pound to one pound and a half of fustic, put it in, and boil it twenty minutes, to which add a lump of alum, as big as a walnut; when this is dissolved in your copper, put in your coat and boil it twenty minutes; then take it out, and add a small wine glass, three parts full, of chemic blue, and boil again from half an hour to an hour, the cloth will be a beautiful dark green, wash out and dry.

567. *Maroons.*—Which are shades of red, are done with Brazil wood and galls. Supposing the thing to be dyed be a pelisse, after the cloth is well scoured, boil it for half an hour in alum and tartar, as for madder red; then in the second liquor, when you put in your Brazil, as for Brazil red, add two blue galls well pounded, in a bag. After they have boiled a quarter of an hour, take them out before you put in your goods, for if the galls be left in the copper in the bag, they may spot, and cause the dye to be uneven.

Some dyers boil the goods for an hour in galls or sumach both being of the same nature, then draw them out, and wash in cold water, and afterwards boil them for an hour in alum and tartar, using rather more tartar for reds. This second preparing liquor is thrown away, and a third liquor is made for dyeing with about half a pound of Brazil wood, and sometimes more, as the shade is required.

561. *To make a Decoction of Brazil Wood, otherwise called Brazil Juice, or fermented Brazil.*—Much Brazil is saved by this means, and it works much better. Fill your copper quite full of hard spring water; then put in three or four pounds of Brazil, for every ten gallons of water; boil them an hour, draw off the clear of this liquor, and put it in a deal cask, or pan, pouring fresh clean water on the Brazil grounds; boil as before an hour or two, and so continue till the Brazil is spent. Keep this fermented Brazil juice any length of time, till it becomes oily, the older the better. In fact, this is the only way Brazil wood will give out its colour.

If a dark maroon be required, it is to be saddened by taking out the goods a quarter of an hour previous to their

being dyed enough, and putting into the copper a little dissolved green copperas, from a table spoonful to one and a half.

569. *A pretty kind of fawn brown.*—Take a quarter of a pound of fustic, or somewhat less from one to two ounces of madder, sumach, two or three ounces; a little copperas and archil. But if the shade require it, more ingredients may be added; the quantity of ingredient must also be increased according to the quantity of cloth to be dyed.

There is scarcely a drug used in dyeing generally that may not be used in dyeing brown. You have only to put in what drugs you think proper, boiling them half an hour, then put in your goods, and boil them from one to two hours, as the shade is required.

Brown may be diversified in the copper “ad infinitum” by adding a larger quantity of the ingredient that produces the desired colour. For instance, camwood makes it redder, fustic more yellow, sumach browner, green copperas blacker, archil redder, logwood more of the puce. Thus a madder after being boiled strongly half an hour, produces, without any preparation, a red brown: and with fustic, and a little sumach makes fawn and drab colours, with the addition of a little archil, which tends at all times to brighten browns. Having given a slight sketch of the colour each drug produces, I will proceed to the mixture of them. All browns are saddened, or made to incline towards black, by green copperas. Lime is often used for browns.

570. *To make a very bright and beautiful yellow on fine cloth.*—This is done by giving it a preparation of half the quantity of the articles mentioned in the preceding receipt and, in ten minutes, previous to your taking out the goods for rinsing, add a little muriate of tin; put in your goods and boil them ten minutes. They must be slightly rinsed in spring water.

371. *For gold colour.*—Prepare as for the receipt preceding the last, only adding so the weld powdered turmeric and fustic, according to the shade required.

572. *For orange colour.*—The same process is to be used as specified in the last receipt, only with the addition of annatto, which must be dissolved, with nearly its weight of pearl-ash, made into a perfect solution, and otherwise furnished as the preceding receipt for a full yellow.

If a permanent orange colour be wanted, instead of annatto a small quantity of best crop madder and fustic must be added to the weld; and these three drugs, viz. weld fustic, and madder must be worked well together, with the same preparation as for common yellow, only do not let them boil in the alum and tartar quite so long as for a full bodied yellow: practice alone can make you a judge of what quantity of madder to use.

Weld produces a fine yellow,
Fustie an orange yellow,
Madder a fire red.

These three colours being used in due proportion, produce orange colour of the brightest dye. I am thus particular, in order that you may vary the shades to your fancy. The proportions of alum and tartar also will vary the simple colour of yellows. Please to recollect that your garment should receive the yellow of the weld and fustic before the madder is used, except you take care not to boil the madder, for, whenever madder is boiled it turns brown, and consequently will not afford that clear red, which is so necessary for an orange.

Stuffs dyed with chromate of lead have their colours immediately, and completely destroyed by the subacetate of soda, and by the muriatic acid when cold.

573. *For cleaning and restoring blues, purples, and shades from them, such as mazarine, prince's garter, royal and navy blues.*—These should be cleaned by dissolving hard white soap, as before described, adding to it a small quantity of the best American pearl ash; and if the colours are faded almost to a red, this will restore them. You must add more or less pearl ash as the colour may require. Wash the silk in this liquor, as you would a linen garment, then instead of wringing, gently squeeze, and sheet them. When dry, finish them with fine gum water, or isinglass, dissolved by

boiling. A sponge must be dipped in this, and squeezed almost dry, and then rubbed regularly all over the wrong side, and lastly, they should either be framed or pinned out. A small bit of pearl ash should be added to the isinglass, or gum water, which will preserve its brightness.

N. B. These blues of all shades are dyed with archil, and afterwards dipped in a vat: therefore cleaning with pearl ash restores the colour. There are some blues on silk, of a very light shade, that are dyed with chemic blue which will not clean. These may be distinguished by their not being of a red cast.

574. *Olive green.*—There is a kind of dirty looking green, that may be cleaned much in the same manner, only no acid must be used; or great care must be taken to use no more than a sufficiency of it to harden the water. But if the water used is of a hard nature, no acid will be wanted a small quantity of verdigris dissolved in water, or a drop or two of what is termed a solution of copper, mixed with water, will revive the colour again.

575. *A method of cleaning chintz bed and window furniture, so as to preserve the gloss and beauty.*—This will generally answer where the cloth is not in a very dirty state:—Take two pounds of rice, boil it in two gallons of water till soft; put the whole into a tub; and when your liquor is at a hand heat, put in your chintz, and use the rice as you would soap. Then take the same quantity of rice and water, but when boiled, strain the rice from the water. Wash the chintz in this till it is quite clean: afterwards rinse it in the water, in which the rice was boiled, smooth it out with the hands; and hang it up to dry, then rub it with a sleeking stone, or glaze it, and it is finished.

866. *The method practised by dyers is as follows:* Clean the chintz by washing it or rather beating it with the doll in a tub of warm soap lather, at a hand heat: and, at last, either take flour or starch, and make it of the consistence of oil; the article is then beaten up in this; let it be opened well, that it may be smooth; dry in the air, and

glaze it. Should the colour fade in washing, that is the red and green, it will be necessary to give the goods a drop of vitriol in water after rinsing, this stays the colour,

577. *For scouring thick cotton; as counterpanes, quilts, &c.*—Cut a pound of mottled soap into thin slices, put it into a pan with a quarter of an ounce of pot-ash, and one ounce of pearl-ash; then pour a pail of boiling water on it, let it stand till it is quite dissolved; then pour hot and cold water into your scouring tub, with a bowl of your solution of soap. Put in your counterpane, and beat it well out with a doll, often turning the counterpane over in the tub. When this is done, wring it across a gallows or a hook, which is done by turning the two opposite ends round each other, and putting a small clean stick between them. By this method you may wring it as dry as possible, the harder without injuring it the better. Having given it this first liquor, you may put in some old cottons or woollens, that the liquor may not be thrown away, and then give your counterpane a second liquor as before, Wring it out again, and rinse it in cold water; then pour a sufficient quantity of boiling water into your tub, with a small quantity of the solution of soap, so that you will reduce it to a very thin lather. Put three teaspoonsful of liquid blue into the tub, and the acid of the liquid blue and the alkali of the pearl-ash and the soap lye will cause a slight fermentation; stir this blue liquor with a stick, and put in your counterpane; beat it out with a doll about five minutes, which will colour the counterpane of a fine blue, of the lightest shade: but as it dries in the wind, the blue mostly goes off, and leaves a brilliant white.

N. B. In some cases, where the cottons are very brown and bad, it is necessary, instead of the last of these three liquors being poured into the tub, that it should be thrown into the copper, and the cottons put in and boiled an hour. When taken out, return them into a tub with some cold water, and add the before mentioned quantity of chemic blue; and dry the articles in the air.

578. *For cleaning scarlet cloth.*—When these things are

not much soiled, which generally happens if worn in country places; or if the colour incline to what is termed a *fire coloured scarlet*, which is more tenacious, having less body of cochineal, and more spirits, and is often falsified with young fustic, turmeric, &c. the goods will require milder means to extract the dirt, without prejudice to the colour; these are as follows:

Take a quarter of a peck of wheaten bran, pour boiling water on it in a hairsieve, when the bran water comes down to a hand heat, immerse your cloth, and rub it well now and then; and holding it up to the light look through it, to see where the spots are. In the meanwhile prepare a second liquor, like the former, adding to it nearly a quarter of an ounce of white or crude tartar. Wring out from the first bran water, and put in this, and if the colour be not saddened, which may be known by wringing one end of it tight, and blowing strongly on it, which will shew the colour, it will be of when dry, but should it be saddened, or darkened, a clean liquor must be made of cold spring water, to which add a drop or two of the solution of tin; let it remain in this liquor ten minutes, then wring it, and hang it to dry.

579. Of Blue.—Blue is also reckoned a fast colour, when dyed either by indigo or woad in a prepared vat, this vat containing the necessary properties to seize and cement the colouring atoms. The blue, with oil of vitriol alone, never can be ranked among the fast dyes, but blues obtain from logwood, may be made sufficiently holding to be adopted almost for general use; though in the method now practised of simply boiling the logwood with blue vitriol, the colour is easily acted upon by wind, rain, and sun. Goods for blue require no other preparation but dipping them in warm water, previous to their being dipped in the vat. The reason this colour requires no preparation, is because the whole liquor of the vat, of whatever kind it may be, is impregnated with those salts that are of a proper nature to seize on the cloth, and fix itself on the pores of the substances, drawing at the same time the colouring atoms, along with it, and then, on its being exposed to the air, and as the dye and the preparing

salts enter at the same time, it follows that the colour is not only holding but regular, The same thing happens with black and other shades from this colour.

ON FAST AND FUGITIVE COLOURS, AND ON SALTS OR MORDANTS FOR PREPARATION.

580. *The cause why some colours are more holding than others.*—Browns and blues or shades from them, require no preparation, but reds and yellows, either of silk, cotton or woollen, require a preparation to make them receive the dye, and hold is fast when it has received it. Alum and tartar, form a mastic within the pores of the substance that retains the dye, and reflect the colour in a manner transparently. The dyeing materials contain in themselves a sufficient degree of astringent quality to retain their own colours. A very fast red is also made with Brazil wood, by boiling the woollen in alum and tartar, according so the receipt laid down in this treatise, and suffering the cloth to remain several days in a bag kept moist with the preparation liquor. The cause of the solidity of the colour from Brazil wood, dyed after this method, arises from the alum and tartar masticating itself within the pores of the wood in quite a solid state. Then such parts as can be again dissolved by being put into the boiling dye instantly seize the colouring substance, and the pure dye water being of a more soluble quality, and of a finer nature than the gross particles of alum and tartar, the stain of the dye penetrates through the masticated alum and tartar, and, of course, becomes holding and transparent. There is not a drug used in the whole art of dyeing, but may be made a permanent dye, by finding out a salt, or solution of some metal, that, when once dissolved by acids, or by boiling water, will neither be affected by the air nor be dissolved by moisture. Such are alum and tartar, the solution of tin, &c. But these salts and solutions do not answer with all ingredients that are used in dyeing. This proves that the dyeing art is by no means brought to perfection, yellow is also one

of the most holding colours; for many of the drugs, woods, bark, roots, &c. that dye yellow, contain in themselves qualities that are of a nature to cement together, possibly by a kind of glutinous substance which those drugs or herbs possess. Besides this they are generally prepared to receive the dye by alum and tartar; and all drugs that are used in dyeing yellow, are made perfectly solid by these preparations. Nevertheless some of them are sufficiently permanent or holding without any preparation

581. *A false crimson.*—This is used generally in London and elsewhere, on account of the dearness of cochineal; but some persons, instead of cochineal, use the *sylvestre*, or *camoessiane kermes*, and gum lac, or the *Coccus*, &c. but cochineal and Brazil wood answer best, as they are generally known and simple in their use. But a dyer always charges extra, when any thing is dyed in grain, frequently to the amount of a guinea, when, for a false dye, the charge would not exceed seven shillings.

582. *Another crimson.*—Pour boiling water on a sufficient quantity of purple archil, handle your silks through this, for half an hour, then take them out and add such a quantity of oil of vitriol to pour archil as shall be sufficient to make them of the desired shade. Some use the solution of tin instead of oil of vitriol, and this makes a pretty bright red.

Crimson may also be made with madder and archil, or madder and logwood; the goods being first soaked in alum but this is seldom used for silks, though very often for stuffs made of silks and woollens. It is also used for Irish poplins, &c. and must be prepared with alum, and a small quantity of tartar and then simmered in a copper, after the ingredients have simmered for half an hour care must be taken that they do not boil.

COOKERY MADE EASY.

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583. *On the choic of meats.*—By way of remark, it may be mentioned, that in all kinds of meat, the best of the kind goes farthest, and affords most nourishment. Rounds of beef, fillets of veal, and legs of mutton, are joints which bear a high price; but in large families, that use a great consumption of meat, there are many inferior joints, which being bought with the more solid, reduce the price of the former, and may be dressed equally palatable.

584. *Venison.*—The season for venison is from July to December. The choice of venison is in a great measure directed by the fat. If it is thick bright, and clear, the clefts smooth and close, it is young; if the clefts be wide and tough, it is old.

385.—*Beef.*—If the beef be young, it will be smooth and tender; if old, it appears rough and spongy. If the flesh is pale, and the fat yellow, it does not possess equal nourishment. When it is a carnation colour, it is a sign of being good meat.

586. *Mutton.*—Mutton should be chosen for the fineness of its grain, and firm white fat. When it is old, the flesh, when pinched, will wrinkle, and continue so; and the fat will stick by strings and skins. If young, the flesh will pinch tender, and the fat will easily part from the lean. The flesh of ewe mutton, is paler than that of wether mutton, it is of a closer grain, and parts more easily. If the flesh of mutton is loose at the bone, and of a pale colour, it is not good.

587. *Lamb.*—If the hind-quarter and the knuckle be limber, it is stale. If the neck-vein of a fore-quarter be

of an azure colour, it is fresh; but if greenish, or yellowish, the meat is nearly tainted.

588. *Veal*.—When the flesh of a joint of veal seems green, and has yellow specks, it is stale. The loin taints first under the kidney. The leg, if newly killed, will be stiff in the joint; but if stale, supple. In choosing the head, pay attention to the eyes; if they are sunk, it is stale; if plump and lively, it is new and sweet.

589. *Bacon*.—If the fat is white, oily to the touch, and does not break, the bacon is good, especially if the flesh is of a good colour and sticks well to the bone; but if otherwise, and the lean has some yellowish streaks, it is, or soon will be, rusty.

590. *Pork*.—The skin of pork is in general clammy and sweaty when the meat is stale, but smooth and cool when new. When many little kernels, like shot, are in the fat of pork it is measly.

591. *Hams*.—Run a knife under the bone that sticks out of the ham, and if it comes out clean, it is good; if dulled and smeared, it is rancid.

592. *Brawn*.—The best method of knowing whether brawn be young or old, is by the moderate thickness of the rind; the thick and hard is old, but the moderate and soft is young.

CHOICE OF GAME AND POULTRY.

593. *Hares and Rabbits*.—Hares are in season from October to March. A hare, when killed, is stiff and whitish; when stale, the body is limber, and the flesh blackish. If the hare be old, the claws are wide and ragged;

if young, smooth, and the ears will tear like a piece of brown paper. To discover a real leveret, feel near the foot on its fore-leg, if a nob or small bone is found there, it is a true leveret; if not, it is a hare. Leverets are in season from April to September. Rabbits are known by the same signs as the hare, and are in season the whole year.

294. *Pheasant*.—The pheasant is one of the greatest dainties of the table, and is very wholesome. The cock has spurs, which the female has not. When young, the spurs are short and round; but if old, long and sharp. If the vent is open and green, the bird is stale, and when rubbed hard with the finger, the skin will peel.

595. *Partridge*.—When these birds are young, the legs are yellowish, and the bill of a dark colour. If they are fresh, the vents will be firm; but if stale, they are of a pale green. If old, the bills are white, and the legs blue.

Woodcocks, snipes, moar, and white game, heath fowl, quails, &c. may be judged by the same rules.

596. *Turkey*.—In choosing turkies, observe the following rules; if the spurs are short, and the legs black and smooth, it is young; but if long, and the legs rough, old. If long killed, the eyes will be sunk, and the feet feel dry; but if fresh, the eyes will be lively. They are in season during the months of December, January, and February.

597. *Goose*.—Besides the tame, or common goose, there is also the bran goose, a bird of passage. If the bill and the foot be red, and the body full of hairs, it is old; but if the bill is yellow, and the body has but few hairs, it is young. If new, the feet will be limber: but dry if stale. Geese come into season on Michaelmas-day, and continue till the end of the year. Geese are called green till they are three or four months old.

598. *Duck*.—Ducks come into season about the month of September, and continue till the end of the year. In choosing ducks, take notice that they are hard and thick on the belly when fat; but thin and lean when poor limber-footed when new, but dry-footed when stale.

599. *Pigeons and plovers*.—These birds should be very fresh: the best should be supple; if old the feet are harsh. Many persons prefer the tame pigeons to the wild.

The *Field-fare*, *lark*, *thrush*, &c. may be chosen by the same rules.

600. *Fowls*.—If a cock is young, his spurs are short and clubbed; if sharp and standing out, old. If a capon be young, his spurs will be short and blunt, and his legs smooth; if a true capon, he will have a fat vein on the side of the breast, a thick belly and rump, and his combe will be short and pale.

601. *Eggs*.—When you buy eggs, put the great end to your tongue, if it feels warm, it is new, if cold, stale. The best method of keeping eggs, is to bury them in salt, or make a brine of one pound of salt to a quart of water, and put them in. They will keep for a year, but must not be taken out till wanted for use.

CHOICE OF FISH.

602. *Of salmon, trout, haddock, cod, mackarel, herrings, whiting, carp, tench, pike, graylings, smelts, ruffs, shads, &c, &c*.—It may be generally remarked, that if their gills smell well, are red, and difficult to open, their fins tight up, and their eyes bright, they are fresh.

603. *Turbot*.—This beautiful fish is in season nearly all the summer. If good, it should be thick, and the belly

of a yellowish white; if of a blueish cast, they are bad. To keep turbot two or three days, in as high perfection as at first, rub it lightly over with salt, and hang it in a cold place.

604. *Plaice and flounders*.—These fish are in season from January to March, and from July to September. When new, they are stiff, and the eyes look lively, and stand out. The best plaice are blueish on the belly, but flounders should be of a cream colour.

605. *Soals*.—If good are thick, and the belly of a cream colour, if of a blue cast, stale.

Cod, haddock, tkaite, maids, and thorn-backs, may be bought by the same rules.

606. *Tench and carp*.—The tench should be dressed as soon after it is caught as possible. They are covered with a slimy matter, which may be removed by rubbing them with salt: they are in season from July to September.

607. *Lobsters and crabs*.—If fresh, the lobsters has a pleasant scent at that part of the tail which joins to the body, and the tail will, when opened, fall back with a spring. The weight of the lobster is a good criterion; they are in season during the summer months. The heaviest crabs are best whether small or large.

608. *Oysters*.—The pyefleet, Colchester, Milton, and Milford, are the best flavoured. The mode of feeding them, is by placing them on the bottom shell in a tub, having first washed them with a birch broom, sprinkle them with oatmeal and salt, and cover them with water. Repeat this every day, and they will fatten.

SOUPS AND BROTHS.

GENERAL REMARKS.

The best and most wholesome soups are obtained from the freshest meats; those parts of the meat should be selected which affords the richest juices.

When there is any fear that gravy meat will spoil before it is wanted, season it well, and fry it lightly, which will preserve it a day longer. On account of the vegetables being apt to turn the stocks sour, use the essence, which may be procured at the oil shops, and mix a small quantity when wanted.

Soups are better if made the day before they are wanted, and it should be remembered, that in all soups and broths the taste of one ingredient should not predominate over another; and the whole have a fine flavour, according to what it is designed for.

609. *Mock turtle*.—Take a calf's head, scald, and wash it, boil it for half an hour, skin it, and take the tongue out. Have ready some strong veal gravy, and put the tongue and skin in, with three large onions, half an ounce of cloves and mace, and half a nutmeg, beat very fine, all kinds of sweet herbs, and three anchovies; stew them all together, and when tender, take out the meat, cut it in pieces of about two inches square, and the tongue, which must be skinned, in pieces the same as the head. Strain off the liquor, put half a pound of butter into the stewpan, melt it, and put in a quarter of a pound of a flour, which keep stirring till smooth; add to the liquor, a pint of white wine, force meat balls, and the yolks of eggs either broiled or fried, some lemon-juice, and let the whole stew for an hour. If too thick, add some broth before stewing it the last time, and serve it up quite hot in the tureen.

610. *A cheaper way*.—Prepare half a calf's head, without the skin, as above. When the meat is cut off, break

the bones, and put them into a saucepan with some gravy and seasoned with fried onions, herbs, mace and pepper.

Have ready two or three ox palates blanched, and cut into small pieces. A cow-heel, cut into pieces, may be added. Brown some butter, flour, and onion, and put the gravy to it. Then add the meats cut into small pieces, and stew. Half pint of sherry, an anchovy, two spoonfuls of walnut-ketchup, two of mushroom-ketchup, and some chopped herbs, balls, &c.

N. B. Make your forcemeat-balls as directed for turtle, which see.

611. *Brown portable soups.*—Take a large leg of beef, bone it, and take off the skin, and the fat; put it into a stoving pot with a tight cover, with about four gallons of soft water, six anchovies, half an ounce of mace, a few cloves, half an ounce of whole pepper, three onions, a bunch of thyme, sweet marjoram, and parsley, with the bottom crust of a small loaf; cover it very close, and let it have a constant fire to do leisurely for seven or eight hours; stir it well together, to make the meat separate; cover it close again, and in an hour try your soup in a cup if it will glutinate; if it does, take it off, and strain it in a canvas bag; have china, or glazed earthen cups ready, and fill them with the jelly: put them into a gravy-pan, or stew-pan, with boiling water, and let them boil till it is perfectly glutinous. When they are almost cold, run a knife round them, and turn them on a piece of flannel, to draw out the moisture; in six hours turn them, and do so till they are hard and dry; put them into stone jars, and keep them in a dry place.

When you intend to make it into soup, shred and wash clean what herbs you have to enrich it, as celery, endive, chervil, leeks, lettuce, or what herbs you please, or use the essences as mentioned in the observations on soups; boil them in water till they are tender, strain them off, and dissolve what quantity of portable soup you please, according to the strength you would have it. Fry a French

roll, and put it in the middle of your dish, moistened first with some of the soup; and when the cakes are thoroughly melted, set it over the fire till it is just at boiling.

612. *A white portable soup.*—Bone a leg of veal, take off all the skin and fat; likewise two dozen of fowls, or chickens' feet, washed and chopped to pieces; put all into a stoving pot, with three gallons of soft water, till the meat is so tender as to separate. Keep the pot covered, and under a constant fire; in about eight hours, try the jelly in a cup, and when cold, if it is so stiff that it may be cut with a knife, take it off, and strain it through a sieve, but take off all the fat: provide china cups, and fill them with the clear jelly, and proceed as directed for the brown portable soup. When any is required for use, take a piece the size of a walnut, and pour a pint of boiling water on it, stirring it till it is dissolved; season it with salt to the taste, and it will make a bason of strong broth. If for a dish of soup, boil vermicelli in water, then to a cake of soup pour a pint of water, four cakes will make two quarts; when melted, set it over the fire to simmer, pour it in the dish, put in thin slices of bread hardened before the fire, and the vermicelli upon them.

613. *Gravy soup.*—Take the bones of a rump of beef, a piece of the neck, and boil all the goodness from them; strain it off, take a piece of butter, put it into a stewpan, brown it, and add to it an onion stuck with cloves, some celery, cos lettuce, chervil, endive, spinach, turnips and carrots; season it with pepper, salt, and cloves, and boil all together; put in sippets of bread dried by the fire, and a glass of red wine. Serve it up with a French roll, and laid in the middle. If in season, add green peas, tops of asparagus, and button onions, steamed, &c.

Spring soup and *soup julien* are the same as the above, omitting the lettuce and chervil for the latter, the former is named from the season when carrots and turnips are to be had.

614. *White vermicelli soup.*—To three quarts of veal gravy, add a quarter of a pound of vermicelli, blanched,

two quarts of water, four yolks of eggs, half a pint of cream, and a little salt, mixed well together; simmer it for five minutes, and stir it while on the fire, or it will curdle. Serve it up to table in a tureen, with a crust of a French roll baked.

Brown vermicelli soup is made in the same manner, leaving out the eggs and cream, and adding one quart of strong beef gravy.

615. *Hare soup*.—Cut a large hare in pieces, put it in an earthen jar, with three blades of mace, two large onions, a little salt, a red herring, six large morrels, a pint of red wine, and three quarts of water. Bake it three hours in a quick oven, and strain the liquor into a stewpan, put in a quarter of a pound of French barley, ready boiled; scald the liver, and rub it through a sieve with a wooden spoon; put in the soup, place it on the fire, and keep it stirring till near boiling. Put some toasted bread into the tureen, and pour the soup on it.

616. *Partridge soup*.—Skin, and cut in pieces two large partridges, with three slices of ham, some celery, and three onions. Fry them in butter until they are brown, but do not let them burn. Put them into a stewpan, with three quarts of boiling water, a few peppercorns, and salt. Stew gently for two hours, strain the liquor through a sieve, put it again into the stewpan with some stewed celery, and fried bread; when near boiling, pour it into a tureen, and serve it up.

617. *Soup and bouillie*.—Stew a brisket of beef, with some turnips and carrots, button onions, and celery, all cut into small pieces; put the pieces of beef into the pot first, then the roots, and half a pint of beef gravy, with a few cloves; set the pan on the stove to simmer for an hour, and some beef gravy to fill your pan, and boil it gently for half an hour.

618. *Macaroni soup*.—Boil a pound of macaroni in a quart of gravy till quite tender: take out half, and put it into another stew-pot. Add more gravy, and boil it till

you can pulp all the macaroni through a fine sieve. To these two liquors put a pint, or a pint and a half, of boiling cream, the macaroni that was first taken out, and half a pound of Parmesan cheese : make it hot, but do not let it boil. Serve it then up in a tureen, with the crust of a rasped loaf cut small.

619. *Ox rump soup*.—One rump of beef will make it stronger than double the same quantity of any other meat. Make it like gravy soup, and then give it what flavour you like.

620. *Beefbroth*.—Put a leg of beef with the bone well broke, in your pan, with a gallon of water. Take off the scum when it rises, and add two or three blades of mace, a small bunch of parsley, and a crust of bread. Boil it till the beef is quite tender. Lay some toasted bread cut in pieces in your tureen, next to the meat, and then pour the broth over it.

621. *Veal broth*.—Take a knuckle of veal, two turnips, two carrots, two heads of celery, and six onions, stew them in a gallon of water, till reduced to one half, add a lump of butter rolled in flour, with a little Cayenne pepper and salt strain it, and add a gill of cream. Two ounces of vermicelli may be added with good effect.

622. *Mutton broth*.—Cut a scrag of mutton about six pounds weight in two, and boil the scrag part in a gallon of water, skim it, and put in some sweet herbs, an onion and a crust of bread ; when it is boiled about an hour, put in the best part of the neck, and a short time before the meat is quite done, put in a turnip, some dried marigolds, olives, parsley cut small, and seasoned with salt. Some prefer it seasoned with mace, instead of the sweet herbs and onions. In this, however, the fancy must be the director. If you boil turnips as sauce to the meat, they must be done separately, or the flavour will be too strong for the broth,

623. *A cheap soup.*—Take the water that has boiled a leg of mutton, put it into a stewpan with a quantity of chopped leeks, pepper and salt; simmer them an hour; then mix some oatmeal quite smooth, pour it into the soup, set it on a slow part of the fire, and simmer it gently; take care that it does not burn.

624. *Giblet soup.*—Scald and clean three sets of giblets, stew them with a pound or two of gravy beef, scrag of mutton, or the bone of a knuckle of veal; add three onions, a large bunch of sweet herbs, a teaspoonful of white pepper, and a large one of salt. Put five pints of water, and simmer till the gizzards are quite tender, skim it well, and add a quarter of a pint of cream, two teaspoonfuls of mushroom powder, and an ounce of butter mixed with a dessert spoonful of flour. Boil it a few minutes. Season with two glasses of Sherry or Madeira, a large spoonful of ketchup, and some Cayenne. Add salt if requisite.

625. *Soup Cresey.*—Stew twelve large carrots, cut, in a stewpan with turnips, celery, leeks, and onions, cut in pieces, and half pint of split peas, in a quart of water till tender, with some strong beef gravy; rub the whole through a tamis, add five pints of strong veal gravy, and some blanched watercresses, boil the whole for twenty minutes, and season it with salt; let it be the thickness of pea-soup, and serve it up.

626. *Transparent soup.*—Cut off the meat from a leg of veal as thin as possible: when cut clean from the bone, break the bone in small pieces, put the meat in a large jar, with the bones at top, a bunch of sweet herbs, a quarter of an ounce of mace, half a pound of Jordan almonds, blanched and beat fine; pour on it four quarts of boiling water: let it stand over a slow fire all night: remove it into a well tinned saucepan, and let it simmer till it is reduced to two quarts, taking off the scum as it rises; strain it into a bowl, let it stand for two hours to settle; pour it into a saucepan clear from the sediments; have ready two ounces of boiled vermicelli; put it in, and serve it up.

627. *Asparagus soup*.—Cut half a pound of fat bacon into thin slices, put them in a stewpan, add five or six pounds of lean beef cut in lumps, and rolled in flour; cover your pan close, stirring it till the gravy is drawn: and two quarts of water, and half a pint of ale. Let it stew gently for an hour, with some whole pepper, and salt; skim off the fat, and strain off the liquor; put in the leaves of white beet, some spinach, cabbage lettuce, a little mint, sorrel, and sweet marjoram powdered; boil these in the liquor, put in the green tops of asparagus cut small, and boil them till tender. Serve it up hot, with a French roll in the middle.

628. *Soup Lorraine*.—Blanch a pound of almonds, and beat them fine in a mortar, with a little water to keep them from oiling. Take the white part of a roasted fowl and the yolks of four poached eggs, and pound all together very fine, pour three quarts of strong white veal gravy in a stewpan, with the other ingredients; boil them over a slow fire, and mince the white part of another fowl very fine. Season it with pepper, salt, nutmeg, and a little beaten mace. Melt butter about the size of an egg, with a spoonful of the soup strained. Cut two French rolls into thin slices, and set them before the fire to crisp; take the hollow crust of a third French roll, and fill it with the minced fowl, close the roll neatly, and keep it hot. Strain the soup into a saucepan, and let it stew till of the thickness of cream. Put the crisped bread into the tureen, pour the soup over it, and place the closed roll in the centre.

629. *White pottage, with a chicken in the middle*.—To an old fowl, put a knuckle of veal, a scrag of mutton, some spice, some sweet herbs, and onions; boil all together; have ready some barley boiled very white strained through a cullender, with some bread ready toasted in a dish, and a fowl in the middle; green herbs, minced chervil, spinach, and sorrel; pour some of the broth to your bread, herbs and chicken; add barley well strained, and stew all together.

630. *Crayfish soup*.—Take three quarts of strong veal broth, made without herbs, the crumb of four French rolls, the meat of a lobster, and fifty crayfish pounded, with some live lobster spawn; skin and rub it through a tamis cloth, season it with salt, and Cayenne pepper. Cut the crust of French bread into small round pieces when served up.

631. *Oyster soup*.—Take a pound of skaite, four flounders, and two pounds of eels; cut them in pieces, season them with mace, pepper, salt, an onion stuck with cloves, a head of celery, some parsley, and sweet herbs. Cover them with water, simmer for an hour and a half, and strain it off. Beat the yolks of ten hard eggs, with the hard part of a pint of oysters, in a mortar. Simmer all together for half an hour: have ready the yolks of six eggs well beaten, and add them to the soup. Stir it on the fire till it is thick and smooth, but do not let it boil. Serve all together.

632. *Eel soup*.—To every pound of eels put a quart of water and a crust of bread, two or three blades of mace, some whole pepper, an onion, and a bundle of sweet herbs; cover them close, and let them boil till half the liquor is wasted; strain it, toast some bread, cut it small, put it in the dish, and pour in your soup; set the dish over a stove for a minute, and send it to table hot. Should your soup not be rich enough, add a little brown gravy to it.

633. *Mussel soup*.—Boil them till they open, take them off, put them into another stewpan, then, with a bit of butter rolled in flour, some parsley, and sweet herbs, with some good gravy, let them simmer till reduced to one half. Add a liaison, and serve it up hot.

634. *Milk soup*.—With cinnamon boil a quart of milk, two bay leaves, and moist sugar; put some sippets in a dish, pour the milk over them, and set the whole over a charcoal fire to simmer till the bread is soft; take the yolks of two eggs, beat them up, and mix them with a little of the milk, and throw it in; mix it altogether, and serve it up.

635 *Green pea soup*.—Pare and slice three cucumbers, add to these as many cos lettuces, a sprig of mint, an onion, some pepper and salt, a pint of young peas, and a little parsley.

Put all together, with a quarter of a pound of fresh butter, into a saucepan, stew them gently in their own liquor, half an hour; then pour one quart of weak gravy on them and stew it two hours; thicken with a bit of butter rolled in flour, and serve it.

636 *White pea soup*.—Take a pint of peas, either split or whole, but whole, in preference; having steeped them in cold water one hour, put them into a pot, with a quart of water, and let them boil till they become sufficiently tender to be pulped through a sieve. Put them into a stewpan, with some gravy, and white pepper, and salt. Boil it for half an hour, and serve up with fried bread, and a little dried mint.

637 *Soup maigre*.—To a bunch of celery, washed clean, and cut in pieces, add a large handful of spinach, two cabbage lettuces, and some parsley: shred them small; take a large stewpan, put in half a pound of butter; and when quite hot, slice four large onions very thin, and put them into your butter; stir them well together for two or three minutes; put in the rest of your herbs; shake all well together for twenty minutes; dust in some flour, and stir them together; pour in two quarts of boiling water; season with pepper, salt, and beaten mace; chip a handful of crust of bread, and put it in; boil it half an hour; beat up the yolks of three eggs in a spoonful of vinegar, pour it in, stir it for two or three minutes, and it will be ready to send to table.

GRAVIES AND SAUCES.

638. *To make a strong fish gravy*.—Take two or three eels, skin them, gut them, and wash them from grit; cut them into small pieces, and put them into a saucepan; cover them with water, a little crust of bread toasted brown, a blade or two

of mace, some whole pepper, a few sweet herbs, and a little bit of lemon peel ; let the liquor boil till it is rich, have ready a piece of butter according to your gravy ; if a pint, as big as a walnut. Melt it in a saucepan, shake in a little flour, and toss it about till it is brown, and strain the gravy into it. Let it boil a few minutes, and it will be good.

639. *To draw gravy.*—Fry some pieces of lean beef brown in a stewpan, with two or three onions, and two or three slices of lean bacon ; pour in a ladle of strong broth, rubbing the brown from the pan very clean ; add to it more strong broth, claret, white wine, anchovy, and a bunch of sweet herbs, season it, and stew it very well. Strain it off, and keep it for use.

940. *To make gravy for a Turkey or Fowl.*—Take a pound of lean beef, hack it, and flour it, put a piece of butter, as big as an egg into a stewpan, when melted, put in your beef, fry it on all sides a little brown, pour in three pints of boiling water, a bundle of sweet herbs, two blades of mace, three cloves, twelve whole pepper corns, a piece of carrot, a crust of bread toasted brown, cover it close, and boil it till reduced to about a pint, or less ; season it with salt, strain it off.

641. *To make a standing Sauce.*—Put in a glazed jar, with the juice of two lemons, five anchovies, some whole Jamaica pepper, sliced ginger, mace, a few cloves, a little lemon peel, horseradish sliced, some sweet herbs, six shalots, two spoonsful of capers and their liquor, into a linen bag, and put it into a quart of sherry, stop the vessel close, set it in a kettle of hot water for an hour, and keep it in a warm place. A spoonful or two of this liquor is good to any sauce.

642. *Bechemel.*—This is a stiff white sauce, somewhat of the nature of cream, but considerably thicker, and even approaching to a batter. Take strong veal gravy, boil, skim, and thicken it with flour and water, or a piece of butter rolled in flour ; add some more gravy, and when sufficiently boiled, strain it off, put cream enough to make it entirely white, and of the consistency of a light batter ; then just simmer it together, but do not suffer it to boil above a minute or two, or it will injure the colour.

643. *Fish Cullis*.—Broil a pike, take off the skin, and separate the flesh from the bones. Boil six eggs hard, take out the yolks, blanch a few almonds, beat them to a paste in a mortar, and then add the yolks of eggs, mix these well with butter, put in the fish, and pound all together. Take half a dozen onions, cut them into slices, two parsnips, and three carrots. Set on a stewpan, with a piece of butter to brown, and when it boils put in the roots, turn them till brown, and pour in a little stock to moisten them. When boiled a few minutes, strain it into another saucepan, add a leek, some parsley, sweet basil, half a dozen cloves, some mushrooms and truffles, and a few crumbs of bread. When it has stewed gently a quarter of an hour, put in the fish, &c. from the mortar. Let the whole stew some time longer, but without boiling. Strain it through a hair sieve. This is a good sauce to thicken most made dishes.

644. *Family Cullis*.—Take a piece of butter rolled in flour, stir it in your stewpan till the flour is of a fine yellow colour; then put in some good gravy, a glass of white wine, a bundle of parsley, thyme, laurel, sweet basil, two cloves, some nutmeg or mace, a few mushrooms, pepper and salt. Stew it an hour over a slow fire, skim all the fat clean off, and strain it through a sieve.

645. *White Braise*.—Put the udder of a leg of veal into cold water for a few minutes, cut it in small pieces, and put them into a stewpan, with a piece of butter, some onions, a bundle of thyme and parsley, a little mace, a lemon pared and sliced, and a spoonful of water, put it over a slow fire, and stir it for a few minutes, then add white gravy, according to the quantity you want to braise. It is generally used for tenderness, for lamb, chicken, or any thing you wish to look white.

646. *Brown Braise*.—Take some beef suet, with any trimmings you may have, put them into a stewpan, with some onions, thyme, parsley, marjoram, mace, and a sliced carrot, set it over the fire: add a bit of butter, a little gravy, a few bay leaves, and six heads of celery; let it draw down for half an hour, then fill it up with good gravy, and a little white wine.

647 *To make browning.*—To make browning, a very useful culinary preparation, beat small four ounces of fine sugar, put it into a frying pan, with an ounce of butter. Set it over a clear fire; mix it well together, and when it begins to be frothy hold it higher. When the sugar and butter are of a deep brown, pour in a little wine, and stir it together; then add more wine, till half a pint is used. Add half an ounce of Jamaica pepper, six cloves, four shalots, peeled, two or three blades of mace, three spoonsful of ketchup, a little salt, and the rind of a lemon. Boil it slowly about ten minutes, and pour it into a bason. When cold, take off the scum, and bottle it for use,

648 *Beef gravy.*—Cut a piece of the neck into small pieces, strew some flour over it, put them into a saucepan, with as much water as will cover them, an onion, a little allspice, pepper, and salt. Cover close, and skim it; throw in some raspings, and let it stew till the gravy is rich and good; strain it off, and pour into the sauceboat.

649 *Stock for gravy soup.*—Put a knuckle of veal, about a pound of lean beef, and a pound of the lean of a gammon of bacon, all sliced, into a stewpan, with onions, turuips, celery, two of each, and two quarts of water. Stew the meat quite tender, but do not let it brown. When thus prepared, it will serve either for soup, or brown or white gravy; if for brown, put some of the browning, and boil it a few minutes.

650 *Gravy for a fowl.*—Take the neck, liver, and gizzard, boil them in half a pint of water, with a little piece of bread toasted, pepper and salt, and a bit of thyme; boil them till reduced to one half, add a glass of red wine, boil, and strain it; bruise the liver well, strain it again, and thicken with a little piece of butter rolled in flour.

651 *Gravy to make mutton eat like venison.*—Pick a stale woodcock, take out the bag from the entrails, cut it in pieces and simmer it with as much unseasoned meat gravy as you require.

652 *Poivrade sauce for partridges.*—Rub the bottom of a stewpan with a glove of garlic; put a small piece of butter,

a few slices of onion, some gravy, vinegar, and whole pepper, let it boil down ; add a little flour to thicken it, a little cullis, and strain it through a tamis cloth ; squeeze in a lemon.

653 *Sauce for a pig.*—Chop the brains, put in a teaspoonful of the gravy that runs from the pig and a piece of anchovy. Mix them with half a pound of butter, and as much flour as will thicken the gravy ; a slice of lemon, a spoonful of white wine, some caper liquor, and a little salt.

654 *Sauce for venison or hare.*—Beat some currant jelly, with two spoonsful of port wine, and melt it over a fire : or, half a pint of red wine, with two ounces of sugar, simmered to a syrup.

655 *Sauce for a turkey.*—Open a pint of oysters, separate the liquor, and wash them. Pour the liquor, when settled, into a saucepan, and stir into it a little white gravy, and a spoonful of lemon pickle. Thicken it with flour and butter, and boil it three or four minutes. Add a spoonful of thick cream, and lastly, the oysters. Stir them over the fire till hot, but do not let them boil.

656 *Essence of ham.*—Cut three pounds of lean ham into pieces of about an inch thick ; lay them in a stewpan with slices of carrots, parsnips, and three onions cut thin. Stew them till they stick to the pan, but not burn. Pour on some strong veal gravy by degrees ; some fresh mushrooms or mushroom powder, truffles and morels, clove, basil, parsley, a crust of bread and a leek.

Cover it close, and when it has simmered to a good thickness and flavour, strain it off.

657 *To make a liaison.*—Take the yolks of six eggs, beat them up by degrees in a pint of boiled cream ; strain through a hair sieve and add a spoonful of bechemel. Take the pan off when you stir in the eggs, set it on the fire again, and stir till it boils. Add a lump of sugar and salt for seasoning.

658 *Sauce for all kinds of roast meat.*—Wash an anchovy clean, and put to it a glass of red wine, some strong gravy, a

shalot cut small, and a little juice of lemon. Stew all together, strain, and mix it with the gravy that runs from the meat.

659. *Sauce for wild fowl or tame ducks.*—Simmer a cup of port, the same of gravy, a shalot, pepper, salt, and mace, for ten minutes, put in a bit of butter and flour, give it one boil, and pour it through them.

660. *Green sauce for green geese.*—Mix a quarter of a pint of sorrel juice, a glass of white wine and some scalded gooseberries. Add sugar and a bit of butter.

661. *Bread sauce.*—Boil an onion cut into four, with a few grains of black pepper and milk, till the onions is reduced to a pulp. Pour the milk, strained, on grated white stale bread. Let it stand an hour, put it into a saucepan with a moderate piece of butter, mixed with flour, and boil the whole together.

662. *Egg sauce.*—Boil two eggs till they are hard ; chop the whites and yolks, but not very fine. Add to them a quarter of a pound of melted butter and stir them well together.

663. *A sauce for cold partridges, moor game, &c.*—Pound four anchovies, and two cloves of garlic in a mortar : add oil and vinegar to the taste. Mince the meat, and put the sauce to it as wanted.

664. *Sauce for a savoury pie.*—Take some cullis, an anchovy ; a bunch of sweet herbs, and a little mushroom liquor, boil it, and thicken it with burnt butter, add a little red wine, and put it in your pie. This serves for any meat pies.

665. *Force-meat balls.*—Half a pound of veal, and half a pound of suet cut fine, beat them in a marble mortar, shred in a few sweet herbs fine, a little mace dried, a nutmeg grated, a little lemon peel cut fine, pepper and salt, and the yolks of two eggs. Mix all well together, roll some of it in little round balls, and some in long pieces. Roll them in flour, and fry them of a good brown. If they are for the use of white sauce do not fry them, but put a little water into a saucepan, and when it boils, put them in : a few minutes will do them.

Forcemeat is a principal ingredient in cookery, and imparts an agreeable flavour in whatever dish it is used. The articles principally in request for this purpose are, fowl, veal, the inside of sirloin of beef, ham, bacon, suet, bread, parsley, and eggs. To vary the taste of these ingredients, may be added penny royal, savory, tarragon, knotted marjoram, thyme, basil, garlick, shalot, olives, oysters, anchovy, salt, Jamaica pepper, cloves, and nutmeg. In making forcemeat, observe that no one article should predominate; but if various dishes are served on the same day, the varied taste of the forcemeat should be attended to.

666. *Force-meat for soup maigre*,—Pound the flesh of a lobster, an anchovy, the yolk of an hard boiled egg, with black and white pepper, salt, mace, some bread crumbs, a little butter, and two eggs well beaten in a mortar; make them into balls, or roll them long, and fry them brown. Add them to your soup when ready to serve up.

667. *White sauce for carp, &c.*—Put an onion, a few shalots, and three anchovies, into half a pint of cream. Boil them together, then put in two ounces of butter, the yolks of two eggs, and a little white wine vinegar, stir it continually while over the fire to prevent curling.

668. *Lobster sauce*.—Cut a lobster into pieces the size of a dice, pound the spawn, a bit of butter, and four anchovies, in a mortar, and rub them through a hair sieve, put the cut lobster into a stewpan with half a pint of gravy, and a bit of butter rolled in flour, set it over a stove, and keep stirring it till it boils, if not thick enough, add a little flour and water, and boil it again, put the spawn in and simmer it, if the spawn boils it is apt to spoil the colour of the sauce; put a little lemon pickle and corach, and squeeze in half a lemon.

669. *Shrimp sauce*,—Pick your shrimps, and put them into a stewpan, with a little gravy, when hot, pour in melted butter, and some anchovy essence, add a little lemon pickle and corach.

670. *Oyster sauce*,—Blanch and strain the oysters, beard them, put them into a stewpan with a piece of fresh butter,

and the oyster liquor, with some flour and water to thicken it, season with lemon juice, anchovy liquor, Cayenne pepper, and ketchup. When it boils, skim it, and let it simmer five minutes.

671 *Sauce for any kind of fish.*—Take a little of the water that drains from your fish; add an equal quantity of veal gravy. Boil them together, and put it into a saucepan, with an onion, an anchovy, a spoonful of ketchup, and a glass of white wine; thicken it with a lump of butter rolled in flour, and a spoonful of cream. If red wine is used, leave out the cream.

672 *Celery sauce.*—Boil some celery heads in gravy till the liquor is almost wasted, add some bechemel, and five minutes before the sauce is put over the meat or poultry, add a liaison.

673 *Parsley and butter, when there is no parsley.*—Use parsley seed, tied in a rag, and boil it for ten minutes. Take what liquor you want, and put it to your butter: shred a little boiled spinach, and put into it.

674 *Mushroom sauce for fowls, &c.*—Put half a pint of fresh mushrooms to a little butter, a blade of mace, and a little salt; stew them gently for half an hour. Add a liaison. Squeeze in half a lemon.

675 *Shalot sauce.*—Peel, and cut small five or six shalots: put them into a saucepan, with two spoonsful each of white wine, water, and vinegar; give them a boil up, and pour them into a dish, with a little pepper and salt.

676 *To crisp parsley.*—Pick and wash your parsley, put it into a Dutch oven. Set it at a moderate distance from the fire, and keep turning it till crisp. Lay little bits of butter on it, but not to make it greasy. This is better than frying.

677 *Apple sauce.*—Pare, core, and slice, your apples, put them into a saucepan over a slow fire, with as much water

as will keep them from burning; put in a bit of lemon-peel, keep them close covered, till they are all of a pulp, put in a lump of butter, and sugar to your taste.

ROASTING.

GENERAL OBSERVATIONS.

Butcher's meat in general, requires to be allowed a quarter to each pound in roasting, but allowance should be made for the strength of the fire, or the coldness of the weather.

Have a fire in proportion to the piece of meat you intend to roast; if a thin piece, make a small brisk fire, that it may be done quick, and if large in proportion. Observe to keep your fire always clear at the bottom.

Pork, veal, and lamb, should be well done, or they are unwholesome.

Large joints of beef, or mutton, and always of veal, should have paper placed over the fat, to prevent its being scorched.

The best method to keep meat hot, if done before the time required, or if awaiting the arrival of company, is, to take it up when done, set the dish over a pan of boiling water, put a deep cover over it so as not to touch the meat, and put a cloth over that. This will not dry up the gravy.

678 *Beef*—If it be a surloin, butter a piece of writing paper and fasten it on the back of your meat with small skewers, and lay it down to a strong fire. When your meat is warm, dust on some flour, and baste it with butter; a quarter of an hour before you take it up, remove the paper, dust on a little flour, and baste it with butter, that it may have a good froth. Garnish your dish with scraped horse radish, and serve it up with potatoes, brocoli, French beans, cauliflowers, or celery. The rump is excellent roasted.

679 *Beef to equal hare*.—Take the inside of a large sirloin of beef, soak it in a glass of port wine and a glass of vinegar mixed, for forty eight hours; have ready a very fine stuff-

ing, and roll it up tight. Roast it on a hanging spit, and baste it with a glass of port wine, the same quantity of vinegar, and a teaspoonful of pounded allspice. Larding it improves the look and flavour. Serve with a rich gravy in the dish, currant jelly, and melted butter.

680. *Mutton, venison fashion*.—Take a hind quarter of mutton, cut the leg like an haunch, lay it in a pan, with the backside of it down, pour a bottle of red wine over it, and let it lay twenty four hours; spit it, and baste it with the same liquor and butter when roasting. It should have a good quick fire. Have a little good gravy in a boat and currant jelly in another.

681. *Chine of mutton*.—Remove the skin near the rump without taking it quite off, or breaking it. Take lean ham, truffles, morels, spring onions, parsley, thyme, and sweet herbs chopped small, with spice, pepper, and salt. Strew them over the mutton, where the skin is taken off; put the skin over it neatly, and tie over it some white paper, well buttered. When it is nearly done, take off the paper, strew it over the grated bread, and when of a fine brown, take it up.

Serve with good plain gravy, potatoes, brocoli, French beans, or canlflowers.

681 *A breast of mutton with the forcemeat*.—Raise the skin and put the forcemeat under it, and fasten it down; before you dredge it, wash it over with beaten eggs. Garnish with lemon, and put some gravy in the dish. The forcemeat may be the same as in the preceding receipt.

683. *A tongue or udder*.—Parboil the tongue before you put it down to roast, stick a few cloves about it, baste it with butter, and send it up with some gravy and sweet sauce. An udder eats very well done the same way.

684. *Lamb*.—Lay it down to a good fire that will want little stirring, baste it with butter, and dust on a little flour; a little before you take it up, baste it again with butter, and sprinkle on a little salt, and parsley shred fine. Send it to table with a salad, mint sauce, green peas, French beans, or cauliflowers.

685. *Veal Escallops*.—Mince your veal very small, simmer it with some spice, pepper, salt, and a little cream. Put it into the shells, add to them rasped bread with some butter and brown them before the fire.

Chickens dressed in the same way make a very good dish.

686. *Sweetbreads*.—Parboil them, and when cold, lard them with bacon, and roast them in a Dutch oven. For sauce, serve plain butter, and mushroom ketchup.

687. *Calf's head*.—Take out the bones, dry it in a cloth, Make a seasoning of beaten mace, pepper, salt, and nutmeg, some bacon cut very small, and grated bread. Strew it over the head, roll it up, skewer it, and tie it with tape. Baste with butter, and when done pour rich veal gravy over it, and serve with mushroom sauce.

688. *Calf's Liver*.---Cut a long hole in it, and stuff it with crumbs of bread, chopped anchovy, herbs, fat bacon, onion, salt, pepper, bit of butter, and an egg: sew the hole up, lard it, or wrap it in a veal caul. Serve with good brown gravy and currant jelly.

989. *Leg of Pork*.—Parboil the leg, take off the skin. clap it down to a clear fire, and baste it with butter, shred sage fine, mix it with pepper, salt, nutmeg, and bread crumbs. Stew some of the mixture occasionally over it; baste it again with butter just before you take it up, that it may be well frothed.

Serve with gravy in the dish, and with potatoes and apple-sauce. Or cut a slit in the knuckle, and fill the space with sage and onion chopped, and a little pepper and salt.

690. *Veal*.—Paper the udder of the fillet, to preserve the fat and the back of the loin to prevent it from scorching, lay the meat some distance from the fire, that it may well warm through, baste it with butter, and dust on a little flour, when it has soaked some time, draw it nearer the fire, and a little before you take it up, baste it again, roast the breast with the caul on, and the sweetbread skewered on the inside. When it is near done take off the caul, and baste it with butter. It is proper to have a toast baked, and laid in the dish with a loin of veal. Garnish with lemon and barberries.

RULES FOR MAKING WINES.

691. *Mead*.—To thirteen gallons of water, put thirty pounds of honey, boil, and scum it well; take rosemary, thyme, bay-leaves, and sweet-briar, one handful all together; boil it an hour, put it into a tub, with a little ground malt; stir it till it is lukewarm; strain it through a cloth, and put it into the tub again; cut a toast, and spread it over with good yeast, and put it into the tub also, and when the liquor is covered over with yeast, put it up in a barrel; take of cloves, mace, and nutmegs, an ounce and a half; of ginger, sliced, an ounce: bruise some spice, tie it in a rag, and hang it in the vessel, stopping it up close for use.

692. *Balm wine*. Take a peck of balm leaves, put them in a tub; heat four gallons of water scalding hot: pour it upon the leaves, and let it stand all night: in the morning strain it through a hair sieve; put to every gallon of water two pounds of fine sugar; and stir it well. Take the whites of five eggs; put them into a pan, and whisk it very well before it be over hot; when the scum begins to rise, take it off, and keep it skimming all the while it is boiling; let it boil three-quarters of an hour, and then put it into the tub; when it is cold, put a little new yeast upon it, and beat it in every two hours, that it may head the better; work it for two days, put it into a sweet vessel, bung it close, and when it is fine, bottle it.

693. *Birch wine*.—The season for procuring the liquor from the birch trees is in the beginning of March, while the sap is rising, and before the leaves shoot out; for, when the sap is become forward, and the leaves begin to appear, the juice, by being long digested in the bark, grows thick and coloured.

The method of procuring the juice is by boring holes in the body of a tree, and putting in faucets, which is commonly made of the branches of elder, the pith being taken out: if the tree is large, tap it in several places at a time, and by that means save many gallons every day.

If you do not use it immediately, in order to keep it in a good condition for brewing, and that it may not turn sour till you have got the quantity you want, the bottle in which it dropt from the faucets must be close stopped, and the cork waxed or rosined.

Clear your birch with white of eggs; to every gallon of liquid take two pounds and a half of fine white sugar; boil it three quarters of an hour, and when it is cold, put in it a little yeast; work it two or three days, then put it into the barrel, and to every five gallons, add a quart of brandy, and half a pound of stoned raisins. Before you tun your wine, burn a brimstone match in the barrel.

694. *Apricot wine*.—Take three pounds of sugar, three quarts of water, boil them together, and skim it well; put in six pounds of apricots pared and stoned, and let them boil till they are tender; after you have taken out the apricots, let the liquor have one boil, with a sprig of flower clary in it. The apricots make marmalade, and are very good for present using.

695. *Damson wine*.—Gather your damsons dry, weigh them, and bruise them; put them into an earthen pan that has a faucet; add to every eight pounds of fruit a gallon of water; boil the water, skim it, and pour it on your fruit; let it stand two days; draw it off, and put it into a vessel fit for it, and to every gallon of liquor put two pounds and a half of fine sugar, let the vessel be full, and stop it close: the longer it stands the better; it will keep a year in the vessel; bottle it off. Put a small lump of refined sugar in each bottle.

696. *Quince wine*.—Take your quinces when they are thorough ripe, wipe off the fur very clean, take out the cores, bruise them, and press them, adding to every gallon of juice two pounds and a half of fine sugar; stir it together till it is dissolved, put it in your cask, and when done working, stop it close; let it stand six months before bottled. Keep it two or three years, and it will be the better.

697. *Lemon wine*.—Take six large lemons, pare off the rind, cut them, and squeeze out the juice, steep the rind in the juice, and put to it a quart of brandy; let it stand in an earthen pot, close stopt, three days, then squeeze six more, and mix two quarts of spring water, and as much sugar as will sweeten the whole; boil the water, lemons, and sugar together, letting it stand till it is cool; then add a quart of white wine, and the other lemon and brandy; mix them together, and run it through a flannel bag into some vessel; let it stand three months, then bottle it off: cork your bottles very well, and keep it in a cool place: it will be fit to drink in a month or six weeks.

698. *Barley wine*.—Take half a pound of French barley, boil it in three waters, and save three pints of the last water, mix it with a quart of white wine, half a pint of borage water; as much clary water, a little red rose water, the juice of five or six lemons, three quarters of a pound of fine sugar, and the thin yellow rind of a lemon; brew all these quick together, run the liquor through a strainer, and boil it up, it is pleasant in hot weather, and very good in fevers.

699. *Plumb wine*.—Take twenty pounds of Malaga raisins, pick, rub, shred them, and put them into a tub; take four gallons of water, boil it an hour, let it stand till it is blood-warm, and put it to your raisins: let it stand nine or ten days more, stirring it twice a day. Strain out your liquor, and mix it with two quarts of damson juice, put it in a vessel, and when it has done working, stop it close; at the end of four or five months, bottle it.

700. *Palermo wine*.—Take to every quart of water a pound of Malaga raisins, rub and cut the raisins small, and put them to the water, and let them stand ten days, stirring once or twice a day; boil the water an hour before it is put to the raisins, and let it stand to cool; at ten days' end strain the liquor, put a little yeast to it; and put it in the vessel, with a sprig of dried wormwood; let it be close stopped, and at three months' end bottle it.

701. *Frontinae wine*.—Take six gallons of water,
S 2

twelve pounds of white sugar, and six pounds of raisins of the sun cut small: boil these together an hour, then take of the flowers of elder when they are falling, and will shake off, the quantity of half a peck, put them in the liquor when it is almost cold; the next day put in six spoonsful of syrup of lemons, and four spoonsful of ale-yeast; two days after, put it in a vessel; when it has stood two months, bottle it.

702. *British Madeira*.—Put one bushel of good malt into a tub, and pour upon it eleven gallons of boiling water, after stirring them together, cover the vessel over, and let them stand to infuse for three hours, strain off the liquor through a hair sieve, dissolve in it three pounds and a half of sugar candy, and ferment it with yeast in the usual manner. After fermenting three days during which time the yeast is to be skimmed off three or four times a day, pour the clear liquor into a clean cask, and add the following articles mixed together:—French brandy, two quarts; raisin wine, five pints; and red port two bottles; stir them together, and let the cask be well bunged, and kept in a cool place for ten months, when it will be fit to bottle. This wine will be found superior to the Cape Madeira, and after having been kept in the bottle twelve months, will be found not inferior to East India Madeira. Good table beer may be made with the malt after it has been infused for making this wine.

703. *British Port Wine*.—Take of British grape wine, or good cider, four gallons, recent juice of red elder berries, one gallon; brandy, two quarts; logwood, four ounces; rhatany root (bruised) half a pound. First infuse the logwood and rhatany root in the brandy, and a 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 cask well bunged for a month, when it will be fit to bottle.

704. *British Sherry*.—Take of pale ale wort, made as directed for British Madeira, four gallons; of pure water, seven gallons; of white sugar sixteen pounds, boil them together for about three quarters of an hour, skimming it; pour it into a clean tub, and dissolve in it four pounds of sugar-candy, powdered—ferment with yeast for three or

four days, in the same manner as directed for British Madeira. When poured off clear into a sweet cask, add five pounds of the best raisins, bruised and stoned: stir up the liquor once or twice a day; and after standing slightly bunged two days, add about a gallon of French brandy; bung the cask, and in three months bottle it for use.

705. *British Champagne*.—Take of white sugar, eight pounds; the whitest raw sugar seven ditto; christallised lemon acid or tartaric-acid, an ounce and a quarter; pure water, eight gallons; white grape wine, two quarts; of perry four quarts; of French brandy, three pints. Boil the sugars in the water, skimming it often for two hours, then pour it into a tub, and dissolve in it the acid. Before it is cold, add some yeast, and ferment in the same manner as directed for British Madeira.

Put it into a clean cask, and add the other ingredients. The cask is to be well bunged, and kept in a cool place for two or three months; bottle it, and keep it cool for a month longer, when it will be fit for use. If it should not be perfectly clear after standing in the cask two or three months, it should be rendered so by the use of isinglass before it be bottled.

By adding a pound of fresh or preserved strawberries, and two ounces of powdered cochineal, to the above quantity, the *pink Champagne* may be made.

706. *Clary Wine*.—Take twenty-four pounds of Malaga raisins, pick them and chop them very small, put them into a tub, add to each pound a quart of water; let them steep ten or eleven days, stirring it twice every day; it must be kept covered close all the while; then strain it off, and put it into a vessel, and about half-a-peck of the tops of clary when in blossom; stop it close for six weeks, and then bottle it off; in two or three months it is fit to drink. It is apt to have a great settlement at bottom; therefore it is best to draw it off by plugs, or tap it high.

707. *Saragossa Wine, or English Sack*. To every quart of water put a sprig of rue, and to every gallon a handful of fennel root: boil them half-an-hour, strain it off, and to every gallon of liquor put three pounds of honey; boil it two hours; and skim it well; when it is cold, pour

it off into the vessel or cask; keep it a year in the vessel, and bottle it.

708. *Mountain Wine*.—Pick out the stalks of Malaga raisins, chop them small, and put five pounds to every gallon of cold spring water; let them steep a fortnight or more, squeeze out the liquor, and barrel it in a vessel with brimstone. Do not stop it close till the hissing is over.

Put half-a-pint of French brandy to every gallon of wine.

709. *Cherry brandy*.—Take six dozen pounds of cherries, half red and half black, mash or squeeze them to pieces with your hands, and put to them three gallons of brandy, let them steep twenty-four-hours; put the mashed cherries and liquor, a little at a time, into a canvass bag, and press it as long as any juice will run; sweeten it to your taste; put it into a vessel; let it stand a month, and bottle it off. Put a lump of loaf sugar into every bottle.

710. *Shrub*.—Take two quarts of brandy, the juice of five lemons, the peels of two, and a nutmeg; stop it up, let it stand three days, add to it three pints of white wine, and a pound and a half of sugar; mix it, strain it twice through a flannel, and bottle it up.

711. *Fine Milk Punch*.—Take two quarts of water, one quart of milk, half-a-pint of lemon-juice, and one quart of brandy, with sugar to your taste; put the milk and water together a little warm, then the sugar and lemon-juice; stir it well together; then the brandy, stir it again, and run it through a flannel bag till it is very fine, and bottle it. It will keep a fortnight or more.

712. *To recover Wine that has turned sharp*.—Rack off your wine into another vessel, and to ten gallons put the following powder: take oyster-shells, scrape and wash off the brown dirty outside of the shells, and dry them in an oven till they will powder. Put a pound of this powder to every nine or ten gallons of wine; stir it well together, and stop it up; let it stand to settle two or three days, or till it is fine. As soon as it is fine, bottle it off, and cork it well.

713. *To fine wine the Lisbon way.*—To every twenty gallons of white wine take the whites of ten eggs, and a handful of salt, beat them together to a froth, and mix them with a quart more of the wine: pour the wine and the whites into a vessel: and in a few days it will be fine.

714. *To clear wine.*—Take half a pound of hartshorn, and dissolve it in cyder, if it be for cyder, or Rhenish wine for any other liquor. This is sufficient for a hogshhead.

715. *Ginger Beer.*—The best method of making this pleasant and wholesome beverage, is as follows:

Take one ounce and a half of best ginger bruised, one ounce of cream of tartar, and one pound of white sugar, put these ingredients into an earthen pan, and pour upon them a gallon of boiling water. When cold, add a table spoonful of yeast, cover the pan over with a blanket, and let it stand till the next morning. Then run it through a filtering bag, or close sieve, bottle it, and fasten down the corks with string, let it stand in a cool place for three days, and it will be fit for use.

Be particular in having the bottles well cleaned, and good sound corks. A lemon sliced and added, will improve its flavour.

Another for six gallons.

Bruised ginger 8 ounces.

Cream of tartar 6 ounces.

Lump sugar six pounds.

Water 6 Gallons.

Three lemons sliced with the rind on.

Should boiling instead of pouring the water on hot, be preferred, we merely caution the operator to be careful in using a bright iron or tin vessel for the purpose, and not keep it over the fire more than three minutes after it boils; strain, &c. as before.

716. *Soda water.*—A cheap and expeditious way of ma-

king. First be very careful in having your bottles (half pint bottles are best) washed and dry, put into each,

25 Grains of subcarbonate of potash.

25 Grains of citric acid.

Fill the bottles nearly full with spring water, cork it down instantly, and tie the cork down with strong twine or wire, then proceed to the next bottle, and so on until the whole is completed.

Tartaric acid will answer the same purpose, as the citric acid, and is not so dear.

717. *To clarify quills.*—Scrape off the outer film, and cut off the ends or tips of the quills, and put the barrels in boiling water wherein is a small quantity of alum and salt: let them remain a quarter of an hour, then dry them in a pot of hot sand or an oven, but the sand is the best.

718. *Philosophical Candle.*



Put iron filings into the jar A. with two tabularies B, and D, adjust to B a small brass or iron tube ending in a capillary bore, and through D pour the diluted sulphuric acid, the gas will speedily be disengaged, and if a lighted paper be applied to C it will continue to burn with a fine blue flame as long as the decomposition goes on.

719. *To take casts of medals.*—Melt eight ounces of sulphur over a gentle fire, and with it mix a small quantity of fine vermilion, stir it together, and it will dissolve like oil: cast it into a mould, first rubbed with oil.

When cool, the figure may be taken and touched over with aqua-fortis, and it will look like fine coral.

N. B. The moulds should be formed of putty or soft pipe clay; pipe clay answers the purpose best.

720. *To change the hair or beard black.*—Take oil of costus and myrtle, of each an ounce and half; mix them in a leaden mortar, add liquid pitch, expressed juice of walnut leaves and laudanum, of each half an ounce; gall nuts black lead, and frankincense, of each a drachm; and mucilage of gum arabic, made with a decoction of nutgalls. Rub the head or chin with this mixture after shaving.

721. *A remedy for corns on the feet.*—Roast a clove of garlic on a live coal, and fasten it on with a piece of cloth, at the moment of going to bed. It softens the corns, and wholly removes the core in two or three nights using, when the garlic is taken off, wash the foot with warm water, in a little time the indurated skin that forms the horney tunic of the corn will disappear, and leave the part as clean and smooth as if it had never been attacked with the disorder.

COOKERY.—Continued from Page 204.

722. *Fowls.*—Put them down to a good fire, singe, dust, and baste them with butter. They are served with brown gravy, and will take from twenty minutes to three quarters of an hour roasting. Pour gravy into the dish, and serve them with either oyster or egg sauce.

723. *Chickens.*—The same as the above: a quarter of an hour will roast them. Serve with parsley and butter poured over them.

724. *Guinea fowls.*—Are roasted the same as partridges and pheasants.

725. *Pigeons*.—Take a little pepper and salt, a bit of butter, and parsley cut small, mix them together; put it into the bellies of your pigeons, tying the necks tight; take another string, fasten one end of it to their legs and rumps, and the other to a hanging spit. Keep them turning, and baste with butter. When done, lay them in a dish, and they will swim with gravy.

726. *Partridges*.—When they are a little under roasted dredge them with flour, and baste them with fresh butter; let them go to table with a fine froth, putting gravy sauce in the dish, and bread sauce on the table.

727. *Grouse*.—Truss them as fowls, twisting the heads under the wings. Roast them with gravy in them. Serve them up with a rich brown gravy, and bread sauce.

728. *A Teal*.—This delicate bird should be dressed with care. They should be served up with the gravy in them, and put down to a quick fire; a few minutes will be sufficient. Serve them up with a rich gravy or shallot sauce.

729. *To roast a pig*.—Put into the belly a few sage-leaves, pepper and salt, a crust of bread, and a bit of butter; sew up the belly, spit your pig, and lay it down to a good fire, flour it, and keep doing so till the eyes start. When the skin is tight and crisp, and the eyes dropped lay a dish in the dripping pan, to save what gravy comes from it: put a lump of butter into a cloth, and rub it till the flour is quite taken off, then place it in your dish, take the sage, &c. out of the belly, and chop it small, cut off the head, open it, take out the brains, which chop, and put the sage and brains into half a pint of gravy, with a piece of butter rolled in flour; cut your pig down the back, and lay it flat in the dish; cut off the ears, and lay one upon each shoulder; take off the under jaw, cut it in two, and lay one upon each side; put the head between the shoulders; pour the gravy from the plates into your sauce, and send it to table garnished with lemon, or bread sauce in a bason.

730. *Hind quarter of a pig lamb fashion.*—When house lamb bears a high price, the hind quarter of a pig is a good substitute for it. Take off the skin, roast it, and it will eat like lamb. Serve it with mint sauce, or salad.

731. *Porker's head.*—Take a fine young head, clean it, and put bread and sage as for a pig; sew it up tight, and put it on a string or hanging-jack, roast it as a pig, and serve it in the same manner.

GAME AND POULTRY.

GENERAL OBSERVATIONS.

Hares and rabbits require time and care, otherwise the body will be done too much and the extremities too little.

Poultry should be roasted with a clear fire, and when they are frothy, and of a light brown colour, they are enough. Great care must be taken not to overdo them, as the loss of the juices will impair the flavour.

Wild-fowl require less roasting than the tame kind, and must be basted often. Their flavour is best preserved without stuffing. A little pepper, salt, and a piece of butter should be put into each.

To take off the fishy taste from wild fowl, baste them for a few minutes with some hot gravy.

732. *Venison.*—When the haunch is spitted, take a piece of butter, and rub all over the fat, and sprinkle salt over it; take a sheet of writing paper, butter it well, and lay over the fat part; put two sheets over that, and tie the paper on with twine: keep it well basted, and let there be a good fire. If a large haunch, it will take four hours to do it. Before you send it to table, take off the paper, dust it over with flour, and baste it with butter;

let it go up with a froth; put no gravy in the dish, but send brown gravy in one boat, and currant jelly in another.

733. *Hare*.—Case and truss your hare, and make a pudding thus: a quarter of a pound of beef suet, as much bread crumbs; the liver, and parsley and lemon peel shred fine, seasoned with pepper, salt, and nutmeg. Moisten it with an egg, and put it into the hare, and lay it down to a good fire; put a quart of milk, and six ounces of butter into your pan, and baste it well: before you take it up, dust on a little flour, and baste with fresh butter, to make a good froth. Put a little gravy in the dish, and the rest in a boat. Garnish your dish with lemon.

734. *Rabbits*.—Baste them with good butter, and dredge them with flour. Half an hour will do them at a quick fire; and, if they are small, twenty minutes. Take the livers, with a bunch of parsley, boil them, and chop them fine together. Melt some butter, and put half the liver and parsley into the butter, pour it into the dish, and garnish the dish with the other half.

735. *A rabbit, hare fashion*.—Let it hang in the skin four days; skin it, and lay it for thirty-six hours in a seasoning of black pepper and allspice in fine powder, a glass of port, and a little vinegar. Turn it frequently; stuff it as a hare, and use for it the same sauce.

736. *Plovers*.—Green plovers are roasted as woodcocks, lay them on a toast, and put gravy sauce in the dish.

Grey plovers may be roasted, or stewed thus; make a forcemeat of artichoke bottoms cut small, seasoned with pepper, salt, and nutmeg; stuff the bellies, and put the birds into a saucepan, with a good gravy, just to cover them, a glass of white wine, and a blade of mace; cover them close, and stew them till tender; take up your plovers and put in a piece of butter rolled in flour, and boil it till smooth, squeeze in a little lemon, and pour it over the birds. Garnish with orange.

737. *Red or white elder wine.*—Gather the elder-berries ripe and dry, pick them, and bruise them with your hands, and strain them; set the liquor by in glazed earthen vessels for twelve hours to settle; put to every pint of juice a pint and a half of water, and to every gallon of this liquor three pounds of Lisbon sugar; set it in a kettle over the fire, and when it is ready to boil, clarify it with the whites of four or five eggs; let it boil an hour, and when it is almost cold, work it with strong ale-yeast, and run it, filling up the vessels from time to time with the same liquor, saved on purpose, as it sinks by working. In a month's time, if the vessel holds about eight gallons, it will be fine and fit to bottle, and, after bottling, will be fit to drink in twelve months: but if the vessel be larger, it must stand longer in proportion, three or four months at least for a hogshead.—*Note.* All liquors must be fined before they are bottled, or else they will grow sharp, and ferment in the bottles.

Add to every gallon of this liquor a pint of strong mountain wine, but not such as has the borachio, or hog's skin flavour. This wine will be very strong and pleasant.

738. *Sage wine.*—Boil twenty-six-quarts of spring water a quarter of an hour, and when it is blood-warm put twenty-six pounds of Malaga raisins, picked rubbed, and shred into it, with almost half-a-bushel of sage, shred, and a porringer of ale-yeast; stir all well together, and let it stand in a tub, covered warm, six or seven days, stirring it every day, then strain it off, and put it into a runlet; let it work three or four days, then stop it up; when it has stood six or seven days, put in a quart or two of Malaga sack, and, when it is fine bottle it.

739. *Gooseberry wine.*—Gather your 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 is proper; take about the quantity of a peck of the gooseberries; put them into a cloth made of horse-hair, and press them as much as possible, without breaking the seeds: repeat this till all your gooseberries are bruised, adding to this pressed juice the other in the tub; add to every gallon, three pounds of powdered sugar, stir it together till all the sugar is dissolved, and then

put it in a vessel, which must be quite filled with it. If the vessel holds about ten or twelve gallons, it must stand a fortnight or three weeks : or if about twenty gallons, about four or five weeks, to settle in a cold place : draw off the wine from the lees. After you have discharged the lees from the vessel, return the clear liquor into the vessel again, and let it stand three months, if the cask is about three gallons ; or between four or five months, if it be twenty gallons, and bottle it.

This wine if truly prepared, according to the above directions, will improve every year, and keep good for many years.

740. *Currant wine*.—Gather your currants full ripe ; strip them and bruise them in a mortar, and to every gallon of the pulp put two quarts of water, first boiled and cold : let it stand in a tub twenty-four hours to ferment, run it through a hair sieve : let no hand touch it, but take its time to run, and to every gallon of liquor, put two pounds and a half of white sugar ; stir it well, put it in your vessel, and to every six gallons put a quart of the best rectified spirit of wine. Let it stand six weeks, and bottle it. If it is not very fine, empty it into other bottles, and, after it has stood a fortnight, rack it off into smaller bottles.

741. *Raisin Wine*.—To every gallon of clear river water ; put five pounds of Malaga or Belvidere raisins ; let them steep a fortnight, stirring them ever day ; pour the liquor off, squeeze the juice of the raisins, and put both liquors together in a vessel that is the size to contain it exactly. Let the vessel stand open till the wine has done hissing, or making the least noise : add a pint of French brandy to every two gallons ; stop it close, and when it is fine, bottle it.

If you would have it red, put one gallon of Alicant wine to every four of raisin wine.

742. *Cherry Wine*.—Pull off the stalks of the cherries, and mash them without breaking the stones press them hard through a hair bag, and, to every gallon of liquor put two pounds of coarse sugar. The vessel must be full, and let it work as long as it makes a noise in the vessel ; stop it up close for a month or more, and when it is fine, draw it into dry bottles.

If it make them fly, open them all for a moment, and stop them up again. It will be fit to drink in a quarter of a year.

743. *Orange Wine*.—Put twelve pounds of fine sugar, and the whites of eight eggs well beaten, into six gallons of spring water; let it boil an hour, scumming it all the time: when it is nearly cool, put to it the juice of fifty Seville oranges, six spoonsful of good ale yeast, and let it stand two days; put it into another vessel, with two quarts of Rhenish wine, and the juice of twelve lemons; let the juice of the lemons and the wine, and two pounds of double-refined sugar, stand close covered twelve hours before it is put into the orange wine, and scum off the seeds. The lemon-peels must be put in with the orange; half the rinds must be put into the vessel. It must stand ten or twelve days before it is fit to bottle.

THE ART OF DYEING.—*Resumed from Page 180.*

744. *A Yellow, supposed to stand all sorts of Proof*.—First wash the articles in soap and water, then rinse in warm water, and boil together equally well, and adding the decoction to the colour required; lastly, take them out, and let them be rinsed slightly, and dried in a warm room.

Every gradation in the shades of slates or greys is made as in the foregoing recipes, by adding a larger or smaller quantity of dyeing materials.

745. *For Bright or Pearl Grey*.—For a mantle of about a pound weight, boil your water, and then put in about one ounce and a half of logwood—if good logwood, less may do; boil this twenty minutes; add to it three or four drachms of pearl-ash; let this boil five or ten minutes. In the meanwhile, wet your garment in warm water, and wring it; have also another copper or boiler, in which put a small bag with a handful of wheaten bran in it, and two drachms of powdered alum; the alum will throw the scum on the top of the liquor, which take off; then put in your garment for five or ten minutes; take it out, and pour a bowl of the logwood decoction into the vessel containing the bran water; then put in your goods, and boil to colour, adding more logwood than required.

N. B. This process may be conducted in one copper by making the decoction of logwood first; many dyers do it in this manner.

746. *Another Grey.*—Which, being taken from one I had given me, I cannot answer for; the expence, however, of trying the experiment, will not be two-pence.—For one pound weight of cloth, take three ounces of alum, and five ounces of fenugreek seed, and boil them with the goods an hour; then take the liquor, &c. off, and add seven ounces of pearl-ash, and three ounces and a half of Brazil; boil them gently with the goods half an hour; rinse them out and it is said, that the colour will be very fine.

747. *To dye a grey green on prince's cord, or corderoy.*—Boil for one hour, half a pound of chipped fastic and a quarter of a pound of sumach; in the interim, pour some boiling water on two ounces of sumach; strain the liquor, and put your goods in it for half an hour, then take them out, and slightly rinse in cold water; after this, dissolve an ounce of alum in hot water; when at a hand heat, put in your goods for twenty minutes, take them out again and cool down your copper with cold water: slightly rinse your goods from the alum liquor, and put them into the copper, (after first taking out the bag containing the sumach and fastic.) The goods must simmer in this liquor for twenty minutes; take them out once more from the copper, and they will be of a yellow brown colour; slightly rinse them in cold water, and add to the liquor in the copper a table-spoonful of chemic and a small lump of copperas something less than a quarter of an ounce; suffer this to boil ten minutes, then cool down your copper, put in your goods, and boil from ten to fifteen minutes; wash them in cold water, and dry in a warm room. The quantities here specified will serve for two pair of breeches.

748. *Crimson.*—Pour boiling water on a sufficient quantity of purple archil, handle your silks through this for half an hour; then take them out and add such a quantity of oil of vitriol to your archil as shall be sufficient to make them of the desired shade. Some use solution of tin instead of oil of vitriol, and this makes a pretty bright red.

749. *A way newly found out, for dyeing a bright yellow.*
—Take a sufficient quantity of American or quercitron bark, and put it into your copper; when it has boiled five or ten minutes you will be able to judge if it will require more bark. Boil this quickly for twenty minutes, then dip out a sufficient quantity to cover your silks in a pan, into which put a small quantity of muriate of tin; pass your silks through warm water, and wring them gently; then put them in this pan of dye water, and handle them with two sticks, throw your liquor away, and dip another pan full of bark-liquor out of your copper into the pan; handle your silks through this also ten minutes, then add as much more muriate of tin as the colour you intend may require. Rinse out in its own liquor slightly, and dry in a warm room.

EXPERIMENTS WITH THE AIR PUMP.

750. *Glass broken by air*—Lay a square of glass on the top of an open receiver, and exhaust the air. The weight of the external air will press on the glass, and smash it to atoms.

751. *The hand fixed by air.*—If a person hold his hand on an open receiver, and the air be exhausted, it will be fixed as if pressed by a weight of sixty pounds.

752. *The floating stone.*—To a piece of cork tie a small stone that will just sink it; and putting it in a vessel of water place it under the receiver. Then exhausting the receiver the bubbles of the air will expand from its pores, and adhering to its surface, will render it, together with the stone, lighter than water, and consequently they will rise to the surface and float.

753. *Withered fruit restored.*—Take a shrivelled apple, and placing in under the receiver, exhaust the air. The apple will immediately be plumped up, and look as fresh as when first gathered.

754. *The magic bell.*—Fix a small bell to the wire that goes through the top of the receiver. If you shake the wire,

the bell will ring while the air is in the receiver; but when the air is drawn off, the sound will by degrees become faint, till at last not the least noise can be heard. As you let the air again, the sound returns.

755. *Feathers heavier than lead.*—At one end of a balance, hang a piece of lead, and at the other, as many feathers as will poise it; then place the balance in the receiver. As the air is exhausted, the feathers will appear and overweigh the lead, and when the air is drawn off, the feathers will preponderate, and the lead ascend.

756. *The artificial halo.*—Place a candle on one side of a receiver, and let the spectator place himself at a distance from the other side. Directly the air begins to be exhausted, the light of the candle will be refracted in circles of various colours.

757. *The artificial balloon.*—Take a bladder containing only a small quantity of air, and a piece of lead to it, sufficient to sink it, if immersed in water. Put this apparatus into a jar of water, and place the whole under a receiver. Then exhaust the air, and the bladder will expand, become a balloon lighter than the fluid in which it floats, and ascend, carrying the weight with it.

COOKERY.—Continued from Page 216.

758. *Ortolans.*—Split them sideways, baste them with butter, and strew bread crumbs on them whilst roasting.

Send them to table with fried bread crumbs around them, garnished with lemon, and good gravy-sauce or melted butter in a boat.

759. *Larks.*—Truss larks with their legs across, and a sage leaf over the breast; put them upon a fine skewer and between every lark a piece of thin bacon; tie the skewer to a spit, and roast them at a quick fire. Baste with butter, and strew over them some crumbs of bread, mixed with flour;

dry bread crumbs brown, in butter; lay the larks round your dish; the bread crumbs in the middle. Slice orange for garnish, with good gravy in a boat.

760. *Ruffs and reefs*.—Truss them cross legged, put slices of bacon between them, and spit them as snipes; lay them on buttered toast, pour good gravy into the dish, and serve them up hot.

FISH.

GENERAL OBSERVATIONS.

Fresh-water fish frequently have a muddy smell and taste; to take of which, soak them in strong salt and water; or, if of a size to bear it, scald them in the same, and dry them before a dressing.

761. *Pike*.—Gut a large pike, and lard it with eel and bacon, take thyme, savoury, salt, mace, nutmeg, some crumbs of bread, beef suet, and parsley, all shred very fine, mix them with raw eggs, and put in the belly of the pike; sew up the belly, dissolve three anchovies in butter, to baste it with; put two laths on each side the pike, and tie it to the spit; melt butter thick, or oyster sauce. Garnish with lemon.

762. *Eel*.—Scour the eel with salt, skin it almost to the tail gut, wash, and dry it; take a quarter of a pound of suet, sweet herbs, and a shallot shred fine, and mix them together, with salt, pepper, and nutmeg: stuff the belly with it, and then draw the skin over; tie it to the spit, wash the eel with yolks of eggs, and strew some seasoning over it; baste it with butter, and serve it with anchovy sauce.

Any other river or sea fish that are large enough, may be dressed in the same manner.

763. *Pipers*.—Roast, or bake them with a pudding well seasoned. If baked, put a large cup of rich broth into the

dish; when done, take the broth they are baked in, some anchovy essence, and a squeeze of lemon, and boil them up together for sauce.

764, *Escaloped oysters*.—Put them into escalop shells with crumbs of bread, pepper, salt, nutmeg, and a bit of butter, and roast them before the fire in a Dutch oven.

BOILING.

GENERAL OBSERVATION.

Be very careful that your pots and covers are well tinned, very clean and free from sand; and that your pot boils all the while. Fresh meat should be put in when the water boils, and salt meat while it is cold. Take care to have sufficient room and water in the pot; allow a quarter of an hour to every pound of meat, let it weigh more or less. Vegetables should never be dressed with the meat, except carrots, or parsnips, with boiled beef. Above all, take the scum off constantly as it rises.

765. *Leg of pork*.—Lay it a week in salt, and put it into the pot without using any means to freshen it. It requires much water to swim it over the fire, and also to be fully boiled so that care should be taken that the fire does not slacken while it is dressing. Serve it up with pease pudding, turnips, or greens.

766. *Pickled pork*.—Wash the pork and boil it till the rind is tender. It is to be served up always with boiled greens, and is commonly a sauce of itself to roasted fowls or veal.

767. *Pigs petitoes*.—Boil the petitoes till they are tender: Boil the heart, liver, and lights, about ten minutes, and shred them small. Thicken your gravy with flour and butter, put

in your mince-meat, a spoonful of white wine, and a little salt, and give it a gentle boil. Beat up the yolk of an egg; two spoonsful of cream, and a little grated nutmeg. Put in the mince and shake it over the fire till quite hot, but do not let it boil. Put sippets into the dish, pour it over the whole, and garnish with lemon sliced.

768. *Veal*.—Let the pot boil, and have a good fire, when you put in your meat. A knuckle of veal will take more boiling in proportion to its weight than any other joint, because the beauty is to have all the gristles soft and tender.

You may send up boiled veal with either parsley and butter, or with bacon and greens.

769. *Calf's head*.—Pick your head clean, and soak it in a pan of water some time before it is put in the pot. Tie the brains up in a rag, and put them in with the head. When enough, grill it before the fire, and serve it up with melted butter, bacon, and greens, and with the brains chopped and beat up with a little salt, pepper, vinegar, or lemon, sage, and parsley, and the tongue slit and laid in a separate plate.

770. *Lamb's head*.—Wash it well, and lay it in warm water, boil the heart, lights, and part of the liver. Chop, and flour them, put them into some gravy, with ketchup, pepper, salt, lemon-juice, and a spoonful of cream. Boil the head white, lay it in a dish and the mincemeat round it. Place the other part of the liver fried with bits of bacon on the mincemeat. add the brains fried in small cakes round the rim, with crisped parsley between. Pour melted butter on the head and garnish with lemon.

771. *Leg of lamb*.—A leg of lamb, if boiled as it ought to be, in plenty of water, may be dished up white as milk.

Send it to table with stewed spinach; and melted butter in a boat.

772. *Neats tongue*.—A dried tongue should be soaked all night, put it into cold water, and let it have room; it will take four hours. A green tongue out of the pickle need not be soaked, but it will require the same time. An hour before you

dish it up, take it out and blanch it, put it into the pot again, and it will make it eat the tenderer.

773. *Leg of lamb, with the loin fried round it.*—Boil the leg in a cloth very white. Cut the loin in steaks, beat them and fry them of a fine brown; after which, stew them a little in strong gravy. Put your leg in the dish, and lay your steaks round it. Pour on your gravy, and put spinach, and crisp parsley to every steak. Garnish with lemon, and serve with spinach and melted butter.

Grass lamb may be served with spinach, cabbage, brocoli, or any other suitable vegetable.

774. *Ham.*—A ham requires a great deal of water, put it into cold water, and let it simmer for two hours, allow a quarter of an hour to every pound: by this means it will eat tender.

A ham should be soaked in water over night, a green one does not require soaking. Let them be cleaned before you dress them.

Before a ham is sent to table, take off the rind and sprinkle it over with bread crumbs, and crisp it with a salamander.

775. *Mock brawn.*—Boil a pair of neat's feet very tender, cut off the meat, and have ready the belly piece of pork, salted with common salt and saltpetre for a week. Boil it almost enough, take out the bones, and roll the meat of the feet and pork together. Roll it very tight with a strong cloth, and tie it up with the tape. Boil it till very tender, and hang it up in the cloth till cold.

PICKLING.

776. *Asparagus.*—Lay your asparagus in an earthen pot, make a brine of water and salt strong enough to bear an egg, pour it on hot, and keep it close covered. When you use them, lay them in cold water two hours, Boil and butter

them for table. If you use them as a pickle, boil them as they come out of the brine, and lay them in vinegar.

777. *Nasturtium seeds*.—Take the seeds fresh of the plant when they are large, but before they grow hard, and throw them into the best white wine vinegar that has been bottled up with what spices are most agreeable, keep them close stopped in a bottle. They are fit for use in eight days.

778. *To pickle or make mangoes of melons*.—Take green melons, and make a brine strong enough to bear an egg; pour it boiling hot on the melons, keeping them down quite under the brine; let them stand five or six days; then slit them down on oneside, take out the seeds, scrape them a little in the inside, and wash them clean with cold water. Take a clove of garlic, a little ginger and nutmeg sliced, and whole pepper, put these proportionably into the melons, filling them up with mustard seed lay them in an earthen pot with the slit upwards, and take one part of mustard, and two parts of vinegar enough to cover them, pouring it upon them scalding hot, and keep them close stopped.

779. *Mushrooms*.—Cut the stems of small buttons at the bottom wash them in two or three waters with a piece of flannel. Have a stewpan on the fire, with some spring water that has had a handful of common salt thrown into it, and as soon as it boils, put in your bottoms. When they have boiled about three or four minutes throw them into a cullender, and spread them quick upon a linen cloth, and cover them with another. Have ready several wide mouthed bottles, and as you put in the mushrooms, mix a blade of mace and some nutmeg sliced amongst them, fill your bottles with distilled vinegar. Pour over them some melted mutton fat that has been well strained.

780. *Barberries*.—Take white wine vinegar, and water, of each an equal quantity, to every quart, put in half a pound of moist sugar, pick the worst of your barberries, and boil them in this liquor, and put the best into glasses. Boil it till it looks of a fine colour, let it stand till cold, strain it through a cloth, wringing it to get all the colour from the barberries,

Let it settle, and pour it clear into the glasses. Cover them close with a bladder and leather.

781. *Radish pods*.—Make a pickle with cold spring water, and bay salt strong enough to bear an egg; put your pods in, and lay a thin board upon them to keep them under water, let them stand ten days, drain them in a sieve, and lay them in a cloth to dry. Take white wine vinegar, as much as will cover them, boil it, and put the pods in a jar, with ginger, mace, cloves, and pepper. Pour on your vinegar boiling hot; cover them with a coarse cloth; three or four times double, that the steam may come through a little, and let them stand two days Repeat this twice or thrice; when cold, put in a pint of mustard seed, and some horse radish, cover them close.

782. *Onions*.—Take small onions, peel them, lay them in salt and water a day, and shift them in that time once; dry them in a cloth, and take some white wine vinegar, cloves, mace, and a little pepper; boil this pickle, and pour over them, and when cold cover them close.

783. *Samphire*.—Lay green samphire in a pan, and throw two or three handfuls of salt over it. Cover it with spring water. When it has lain four and twenty hours, put it into a brass receiver, with one handful of salt, and cover it with the best vinegar. Cover your saucepan close, and set it over a gentle fire; let it stand no longer than till just crisp and green for it would be utterly spoiled should it stand till it be soft. As soon as you have taken it off the fire, pour it into pickling pots, and cover it close.

784. *Cabbage*.—Take a fine red cabbage, and cut in thin slices, season some vinegar with what spice you think fit, and put it on scalding hot two or three times.

785. *French beans*.—Gather them before they have strings put them in a very strong brine of water and salt till they are yellow, drain them from the brine, putting boiling hot water to them, and stop them close twenty four hours, do so four or five days following, and they will turn green, put to a peck of beans half an ounce each of cloves, mace and pepper.

786. *Cucumbers*.—Let your cucumbers be small, fresh gathered, and free from spots, make a brine of salt and water strong enough to bear an egg; boil the pickle, skim it well, pour it upon your cucumbers, and stive them down for twenty four hours. Strain them into a cullender, dry them well with a cloth, and take the best white wine vinegar, with cloves, sliced mace, nutmeg, white pepper-corns, long pepper, and races of ginger; boil them up together, and put the cucumbers in, with a few vine leaves, and a little salt. Let this simmer in this pickle till they are green, taking care not to let them boil: put them into jars, tie them down close, and when cold, tie on a bladder and leather.

787. *Walnuts*.—Put them into strong salt and water for nine days, stir them twice a day. Change the salt and water every three days. Let them stand in a hair sieve till they turn black. Put them into strong stone jars, and pour boiling alegar over them. Cover them up, and let them stand till cold. Give the alegar three more boilings, pour it each time on the walnuts, and let them stand till cold between each boiling. Tie them down with a paper and bladder, and let them stand two months. Make for them the following pickle. To every two quarts of alegar put half an ounce of mace, and the same of olives, of black pepper, Jamaica pepper, ginger, and long pepper, an ounce each, and two ounces of common salt. Boil it ten minutes, pour it hot on your walnuts, and tie them down, covered with paper and bladder,

GAME AND POULTRY.

GENERAL OBSERVATIONS.

Poultry are best boiled by themselves, in plenty of water. A turkey with a forcemeat in its craw, will take two hours; one without, an hour and a half, a hen turkey, three quarters of an hour, a large fowl forty minutes; a

small one half an hour; a large chicken, twenty minutes; and a small one, a quarter of an hour; a large duck, fifty minutes.

788. *Turkey*.—Cut off the head and neck, make a stuffing of bread, herbs, salt, pepper, nutmeg, lemon peel, a few oysters, or an anchovy, a piece of butter, some suet, and an egg; put it into the crop, fasten up the skin, and boil the turkey in a floured cloth. Pour oyster sauce over it, made rich with cream; or liver and lemon sauce.

789. *Fowls*.—Draw them, cut off the head, neck, and legs; truss them, singe them, and dust them with flour; put them into cold water, cover the pot close, set it on the fire, and let them boil twenty minutes; take them off, and the heat of the water will do them enough in ten minutes more. Serve them up with parsley and butter, or oyster sauce.

790. *Ducks*.—Put them, after drawing them, for a few minutes into warm water, then put them into a pan containing a pint of boiling milk for two or three hours; dredge them with flour, put them into cold water, and cover them close.

Boil them slowly for twenty minutes, and serve them with onion sauce. Geese may be dressed the same way, and stuffed with onion and sage.

FINIS.

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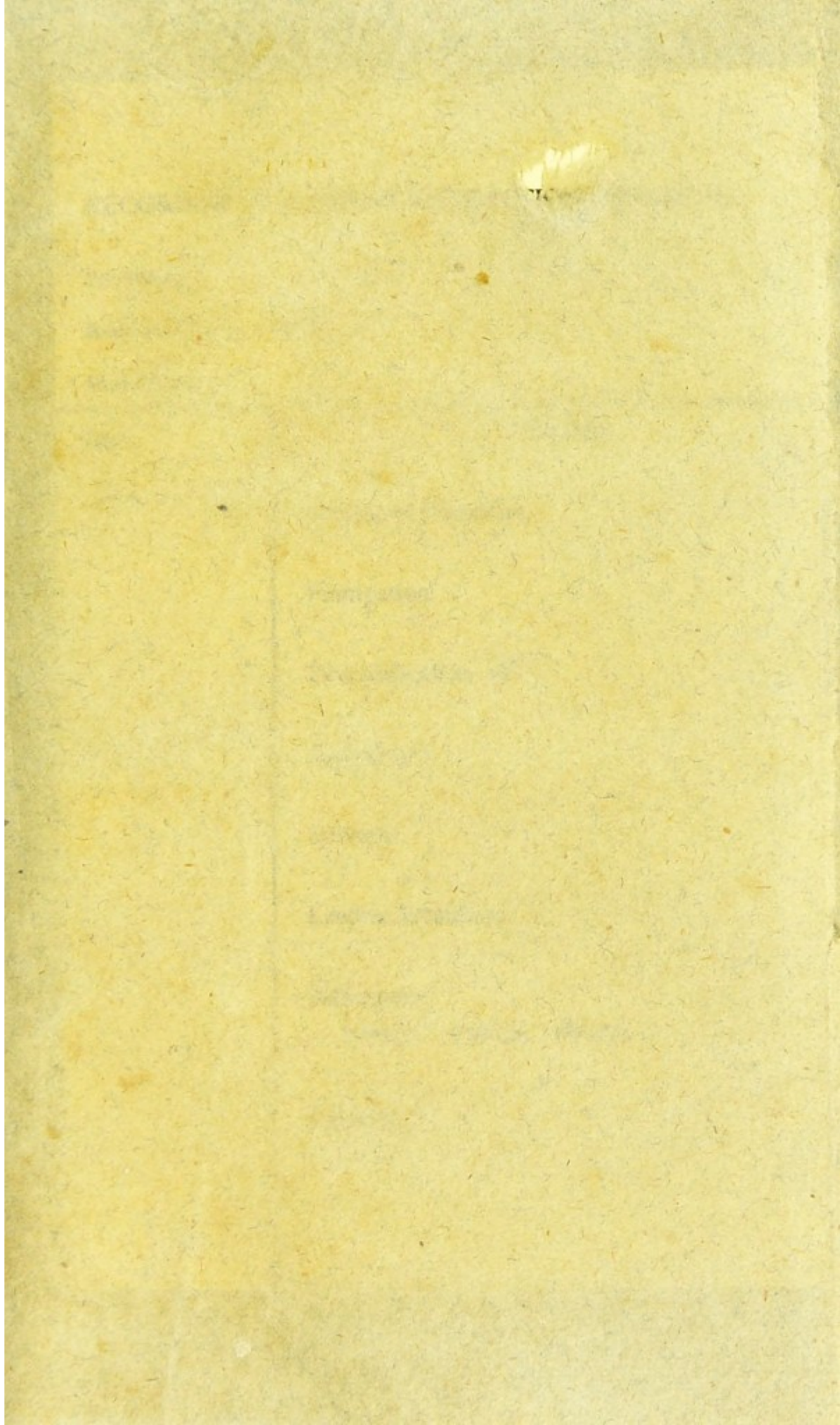
TO MAKE BRITISH WINES.

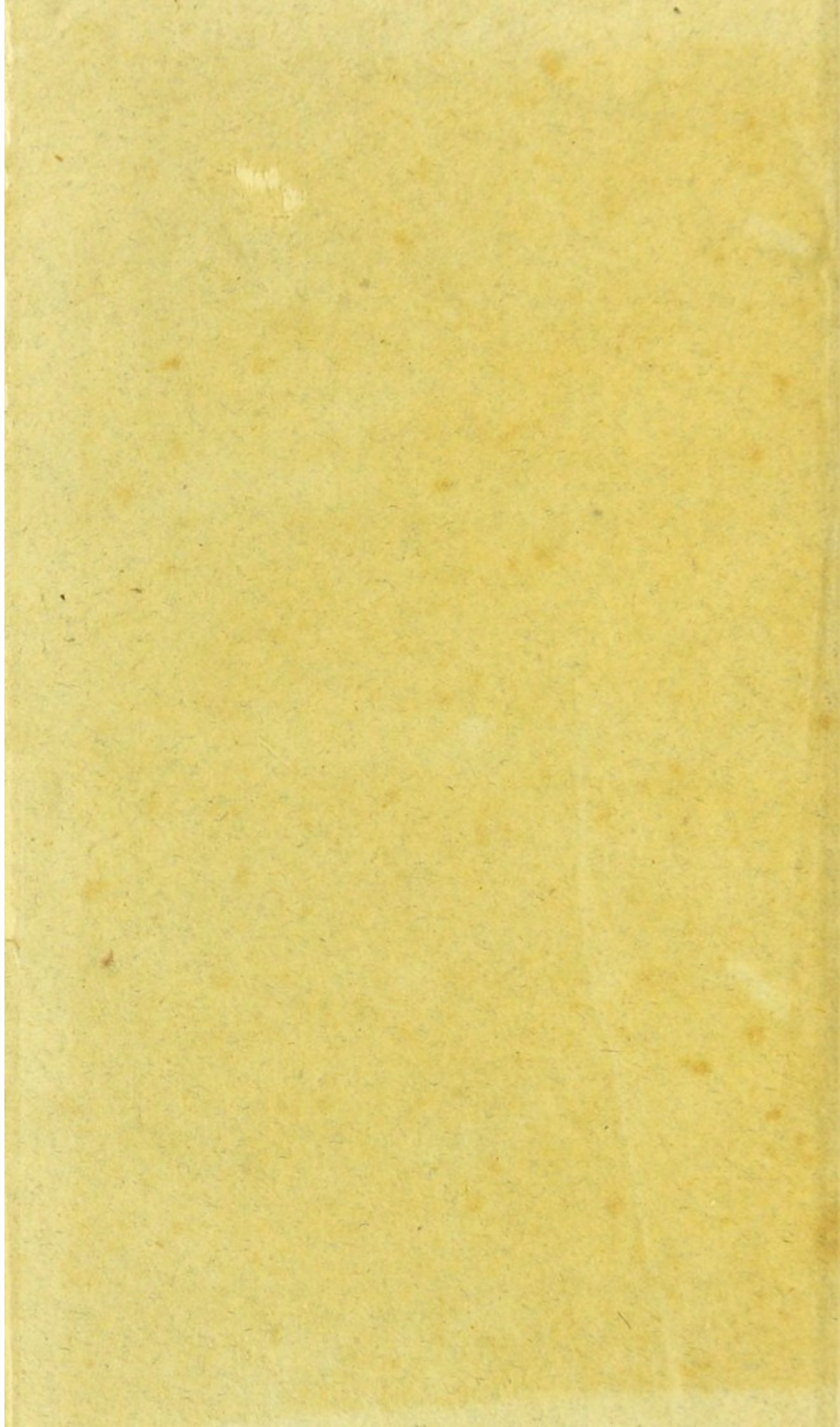
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TO MAKE BRITISH WINE

See page 10 to 15 for full details





RECORD OF TREATMENT, EXTRACTION, REPAIR, etc.

Pressmark:

Binding Ref No: 1952

Microfilm No:

Date	Particulars
20-10-97	Chemical Treatment
	Fumigation
	Deacidification ✓
	Lamination
	Solvents
	Leather Treatment
	Adhesives WHEAT STARCH PASTE
	Remarks

