H A Du Bois Jr
1854

Henry Aug. Du Bois Jr.
1854.

PERFUMERY:

ITS MANUFACTURE AND USE.

WITH

INSTRUCTIONS IN EVERY BRANCH OF THE ART,

AND

RECIPES FOR ALL THE FASHIONABLE PREPARATIONS.

THE WHOLE FORMING A VALUABLE AID TO THE

Perfumer, Druggist, and Soap Manufacturer.

Illustrated by numerous Wood-cuts.

FROM THE FRENCH OF

CELNART AND OTHER LATE AUTHORITIES.

WITH

ADDITIONS AND IMPROVEMENTS,

BY

CAMPBELL MORFIT,
PRACTICAL AND ANALYTICAL CHEMIST.

Second Edition, Revised and Improved.

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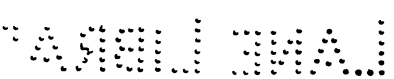

PREFACE.

THE importance which is attached to perfumery, by reason of its very large consumption in the United States—a consumption which is constantly increasing—has rendered necessary some instruction relative to its mode of manufacture. This treatise, therefore, is tendered for that object. It is presented both as a guide-book for the manufacturer, and as a protection to the purchaser against all improper and deleterious compositions.

The knowledge which it conveys is reliable, and completed to the present time. It extends to every branch and subdivision of the art. It comprises authoritative recipes for all the fashionable preparations now imported from the Parisian and Italian markets, and much other useful information; it is, in fact, a complete manual of instruction in the matters of which it treats.

The language of perfumery, so to speak, is almost exclusively French: and as the original designations are those by which the articles are generally known and called, that language has been adhered to in the expression of their names and titles.

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PERFUMERY:

ITS USE AND MANUFACTURE.

CHAPTER I.

INTRODUCTORY REMARKS.

THE term *perfume* is used to designate only those volatile emanations of bodies which are usually considered agreeable; while the word *odor* has a more general signification, and applies to every scent without regard to its nature.

The appreciation of odors is due to the impression upon the seat of the sense of smell, of emanations from bodies, or of infinitesimal molecules of their substance which rise from their surfaces, impregnate the surrounding atmosphere, and, during inhalation, are brought into contact with the delicate and extensive membranes of the olfactory organs.

The tenuity of these molecules is so great, that the bodies whence they emanate experience no percepti-

ble loss by their disengagement, as experiment has proved that a grain of musk gives out, in an area of five feet, fifty-seven million eight hundred and thirty-nine thousand six hundred and sixteen particles, without suffering any appreciable diminution of weight. In a more extended space, and by prolonging the exposure three months, the loss amounts only to an hundredth part.

The degree to which perfumes impregnate bodies varies with the nature of the latter; for example, they combine most readily with liquids;—water and alcohol being excellent media for the extraction of the fragrant portions of plants. Oil is a retentive solvent of balsamic principles, and paper and cotton are very good vehicles for other kinds of perfume. In this variety of means for securing the fleeting aroma of substances, and confining it in a fixed form for the gratification of an important sense, there is always a choice; and the skill and industry employed in adapting each to its most appropriate service, are the measure of the perfumer's merit.

This art derives much of its consistence from chemistry, and, therefore, those who pursue it should be familiar with the principles of that science which are applicable to their calling. Inde-

pendently of an expert manipulation, a nice and discriminating taste in compounding the odoriferous substances, and in varying the gracefulness of their forms, so as to render them acceptable to the tastes of beauty and the caprices of fashion, are also indispensable.

As certain odors, by exciting the nerves, produce headache, and sometimes fainting, and others are even more destructive of health and comfort, it is necessary that the knowledge of the perfumer should be sufficiently extensive to enable him to distinguish between such as are unpleasant or noxious and those which are harmless and agreeable; and this power of discriminating should be supported by an integrity of purpose which will prevent the introduction to the toilet of any perfumes not strictly unobjectionable.

The odors of substances which evolve offensive effluvia, carry with them, in their own repulsiveness, a protection against any prejudicial effect; for the wonderful instinct, in this respect, makes animals revolt at any scent which is discordant with their nice sense of smell. But the deleterious effects of some really fragrant perfumes are more insidious. Perfumes, for example, which may be respired moderately with pleasure and impunity,

become dangerous when inhaled in excess, and the intoxicating delight which they induce, renders it difficult to be moderate in the use of them. In close apartments, especially, they produce an enervating effect upon the human economy; and their use should, consequently, be excluded from boudoirs and sleeping-chambers. Even the aromatic odors which are employed frequently as stimulants, do not form exceptions to this rule.

These facts, though they prove conclusively that the odorous particles of matter exert an energetic action upon the nervous system, do not account for those eccentricities of organization, in fastidious individuals, which bring on hysterical affections at the scent of particular perfumes. Such disorders originate in imagination or in diseased system, and are the results of perversions of the sense of smell.

Odors are classified, according to their nature and their action upon the sense of smell, into nine distinct species.

1. *Amber or Musky.*—Widely diffused in nature, and is evolved by certain animals and from many plants, such as the musk-seed, certain geraniums, &c. This odor is stimulating.

2. *Sweet or Toilet.*—Furnished by all the sweet

flowers, such as the rose, syringa, tuberose, hyacinth, pink, &c.

3. *Aromatic or Tonic.*—These are numerous and various, and from their invigorating effect are much esteemed. They are the products of aromatic substances, such as the clove, nutmeg, cinnamon, pepper, calamus, badian, betel, bennet, myrtle, pimento, cardamom, ginger, spikenard, &c.

4. *Bitter.*—Very evident in cherry-laurel, peach-tree, absinthe, rhubarb, and bitter almonds. Substances which exhale this odor require to be prudently handled and used, as they contain prussic acid, which is a violent poison.

5. *Penetrating and Pungent.*—As from rue, mustard-seed, horseradish, and camphor.

6. *Unsavory.*—As those of the onager, yellow primrose, barberry, and chestnut-tree flowers.

7. *Fetid, or hircine*—Emitted from the body of divers animals, such as the beaver, he-goat, polecat, &c.; and from many plants, as the strong-scented gnaphalium, stinking dead-nettle, &c.

8. *Nauseous.*—Are generally evolved from emetic or purgative substances, and possess, in a subdued degree, the properties which the latter have of producing nausea, qualmishness, and sometimes

vomiting. They are emitted from the hellebore, asarabacca, bryony, aloes, colocynth, peony, &c.

9. *Narcotic, or soporific.*—These odors, generally disagreeable, not only produce sleep, but torpify the nervous system; and when the economy is long exposed to their action, they occasion serious maladies. The plants which emit them are the stramonium, poppy, henbane, nightshade, tobacco, &c.

CHAPTER II.

THE HISTORY OF PERFUMERY.

THE knowledge of perfumes dates back to remote antiquity, and their annals comprise the history of the folly, luxury, and extravagance of past ages. The number of simple and complex substances employed as perfumes by the ancients is incalculable, and almost fabulous. Indeed, so eminent was the esteem in which they were held, that the books written upon the subject by the Egyptians, Greeks, and Romans almost constituted a library of themselves.

Perfumes were, in ancient times, actually considered among the necessaries of life, and were not only lavishly used for scenting, but also as flavoring ingredients of food and drink. There was neither a *fête* nor a funeral in which their use was omitted; they were burned in honor of births, around the hymenial couch, and upon the tombs of the dead; and were alike offered as sacrifices to the gods, in glorification of heroes, and in honor of kings.

In olden times, when a traveller visited a city of the East, it was the custom of the host to prepare a bath for his guest, and to anoint him, as he came from it, with essences and perfumes. Even to this day the usage exists, though in a modified form. The Turk or Persian, after saluting his visitor, seats him upon a divan, and presents a pipe filled with perfumed tobacco. During the reception, the slaves enter with cassolettes, and the burning perfume rises to intoxicate him by its delicious odor, while he regales himself upon ambered coffee and fragrant sweetmeats.

The priests of Memphis burned perfumes three times daily, in honor of the sun;—benzoin at his rising, myrrh at mid-day, and *kyphi*, a compound of six ingredients, at his setting. They also employed them for embalming the dead. And the particular substances used by the Egyptians for this process of mummifying, were myrrh, cinnamon, canella, aloes, and various other aromatic, resinous, and bituminous substances.

Perfumes were in frequent if not constant usage among the Hebrews and the Orientals. That they were known in Egypt is evident, for it is recorded in Exodus, that the Lord spake unto Moses, saying, "Take thou of myrrh, cinnamon, calamus, cassia,

and oil, and make into an holy ointment, with which anoint Aaron and his sons, and the altar of the tabernacle, and the vessels belonging thereto." Furthermore, Moses speaks of being directed to "take sweet spices, stacte, onycha, galbanum, and frankincense, and confection them into a pure and holy perfume, after the manner of the apothecary, to be offered up to the Lord." Additional evidence of their use among the Hebrews, is also apparent from the 15th chapter of John, where the body of Jesus Christ is said to have been embalmed after his crucifixion, in myrrh, aloes, and spices, according to the mode pursued by them in burying. The voluptuous woman in Proverbs, too, spoken of as subtle of heart, and attired as an harlot, mentions having perfumed her bed; and in the same book of wisdom, we read of the epicures, encouraging one another to the luxurious use of odors and costly perfumes; whilst the spouse, in Canticles, commends the scent of the perfumes of her lover; and he, in return, declares that hers surpass the most excellent odors. Ezekiel accused the Jews of having profaned the odors, by applying those to their own use which were reserved for sacred things; and Isaiah reproaches Judea as faithless to God, and as a spouse, painted and perfumed to please strangers.

Perfumes afterwards came in general use among the Grecians and Romans; and, together "with flowers, were intimately connected with Athenian dinners, and were used at sacrifices to regale the gods;—at feasts, to increase the pleasures of sensation;—at funerals, to overpower cadaverous smells, and appease the manes of the dead; and in theatres, to prevent an experience of the offensive effluvia arising from a crowd. Of the different perfumes used by the ancients, an account has been written by one Apollodorus. The most grateful to the Athenian taste was that which had in it the odor of their favorite flower, the violet. That made from the rose was said to be useful in potations; the lethargic, and men of weak stomachs, were recommended to use the unguent extracted from the quince. The white violet, besides its fragrance, assisted digestion. Every part of the body had its appropriate ointment; the oil extracted from the palm was thought best adapted to the cheeks and the breasts; the arms were refreshed with balsam mint; sweet marjoram supplied an oil for the eyebrows and hair, and wild thyme for the knee and neck. Perfumes, in time, became very common among them. The *Nardus* and *Malobathrum* were held in much estimation, and were imported from Syria. The *Baccaris*, the *Brenthium*, the *Psagda*,

the *Plangonium*, and the *Sagdas*, made principally of the general constituent of all the ancient ointments, viz., myrrh, had their respective eulogists. The saloon, where any entertainment was given, was generally perfumed by burning myrrh or frankincense in it. A nice distinction divided perfumes into two kinds: the first were of a thicker sort, and applied more as salves, or wax (χρίματα); the latter were liquid, and poured over the limbs (ἀλείμματα). To indulge in the liquid ointment was considered as effeminate and voluptuous, but the sober and the virtuous were permitted to use the thickest sort without any impeachment of their good qualities. The supplies of perfumery occupied a considerable place in the stock of those artisans who contributed to the embellishment of a Grecian lady of fashion. The article itself bore a high price, but this did not hinder voluptuaries from using it profusely, not, however, without an occasional admonition from the grave men, of the mischief arising from its abuse. The old people referred to a statute of Solon, forbidding the sale of perfumery by the male sex, at least; Sophocles significantly described Venus as sprinkled with perfume, and looking in a mirror; and Pallas, the goddess of wisdom, as moist with olive oil, and practising the exercises

of the palæstra. Socrates objected to the use of perfumery altogether. "There is the same smell," said he, "in a gentleman and a slave, when both are perfumed." In his opinion, the only odors worth cultivating were those arising from honorable toils and the "smell of gentility."

The Romans were only second to the Greeks in their natural love of perfumes; but the passion, at one time, ran into a ridiculous excess, so that an enormous consumption nearly exhausted the sources of supply. Indeed, the abuse became so alarming, that it was deemed necessary, under the consulate of Licinius Crassus, in order to secure a sufficiency for church purposes, to enact a law restricting their use to that and a few other specific applications.

With the decline of the Roman Empire, the European commerce in perfumery diminished; and, in the disastrous epoch of Vandalism, when floods of barbarians inundated the capital of the world, refined taste took its flight, and perfumes became obsolete. In modern days, however, civilization revived and brought back with it this one of its concomitants, which was soon nurtured into a vigorous growth, upon the institution of a new era of gallantry and elegance. The supremacy of woman's influence being thus re-established, perfumes,

as aids to beauty, were in constant and extravagant demand.

In the reign of Louis XV., the ladies at court indulged most freely in the use of perfumes, and fashion ordained an ever-varying routine; so that the royal apartments were, one day, fragrant with the scent of the tuberose, and the next with that of amber and cloves; and so on, consecutively, each succeeding day bringing a change of the reigning odor.

In that luxurious age, the personal use of perfumes was not usurped by the sex, but the effeminate gallants, and *petits maîtres* of the day gloried in perfuming themselves with the favorite scents of their mistresses or of reigning belles; so that allegiance was recognized, not, as in more chivalrous times, by the knight wearing the colors of the fair one who had enslaved him, but by his smelling of the particular odor which she had consecrated to herself.

The voluptuous satraps of Asia abide in an atmosphere redolent with perfumes. The bougies, which illuminate their sumptuous palaces, diffuse, in burning, the most delicious odors; and ornamental fountains in the centre of the apartments emit a constant flow of fragrant waters.

Perfumery, in our day, is a staple element of commerce. Its use is no longer confined to the wealthy. The extravagant habit pervades all classes, and all communities. Germany, Spain, Portugal, and Turkey are its liberal patrons. England, besides being a large consumer herself, derives a profitable revenue from the exportation of an excessive stock; whilst France, the grand bazaar and fashionable depot for the products of this art, in all their perfection, regarding them as necessaries of life, not only absorbs immense quantities within her own domain, but scatters an extensive surplus throughout other lands.

In the United States, the use of perfumery is general. The prosperity of the people at large has placed a certain amount of luxury within the reach and means of all, and so wide-spread is the taste, that the annual sales of one manufacturing house alone, in Philadelphia, exceed eighty thousand dollars. The *ton* confine themselves to the fragrant aristocratic extracts and veritable "*Farina*," while the less fashionable and wealthy consume profusely the more economical articles; so that the *pomade* of the fashionable belle becomes, in this gradation, the "bear's-grease" of the kitchen-maid. Indeed, no boudoir is complete without its stock of perfumery.

CHAPTER III.

THE TRADE OF PERFUMER.

THERE are three distinct classes—the *manufacturer*, the *merchant*, and the *trader*, or *retailer* of perfumery;—to each of which this work addresses useful information.

The manufacturer of perfumery has greater facilities for pursuing his art, either in large cities, where there is always a favorable market for his products, or in those places where the plants required in this branch of fabrication are indigenous and readily to be obtained. For instance, Paris consumes largely of perfumery, besides being an extensive export mart; whilst Greece and Italy afford abundant harvests of flowers. These three localities furnish the most important fabrics of perfumery.

There are manufactured different qualities of perfumery; the best and most elegantly embellished is consigned to cities, whilst the ordinary and inferior kinds, deficient in costly wrappings and trim-

mings, are sent to the smaller traders in lesser towns, or disposed of to peddlers. The house of Hadancourt, St. Bridge, Paris, is a pattern establishment of this class, enjoying a sure and profitable encouragement.

Another class, embracing all the expensive preparations, choicest perfumes, and rich accessories, is represented at the fashionable bazaar of Houbigaut, whose pre-eminence, as to correct taste in his profession, and strict compliance with the vagaries of fashion, has attained for him an enviable success.

The third class, uniting the other two, exhibits itself in the manufactures of Laugier, Dissey, and Pivert of Paris; and Harrison, Bazin, and Hauel of Philadelphia. In their vast warehouses are packed all kinds and styles of perfumery, from the plain delftware pot of simple pomade, to the brilliant flagons and porcelain cases, of innumerable designs, richly embellished, and well filled with perfumes of exquisite and multifarious odors.

To insure success in this business, there are requisite talent, great activity, and considerable capital. Each manufacturer issues a list of his products, with the *wholesale* prices annexed, as a guide to the retailer, who heretofore and still, by

an arbitrary rule of general practice, as his profit, makes an exorbitant addition to the original cost of one hundred per cent. It would be better policy to reduce the unreasonable charges, and rely upon an extended sale to compensate for the diminution of profit.

CHAPTER IV.

THE LABORATORY.

A LARGE space is requisite for this branch of industry. 1st. There should be a reception-house, or store-room for the flowers, perfumes, and raw material generally—the whole to be arranged in proper order. 2d. A main laboratory building, or room in which to prepare the oils and pomades, and distil the spirits. 3d. A second laboratory for the manufacture of the soaps. 4th. An apartment in which to put up, label, and wrap the different articles of manufacture—this room serving also as the warehouse. 5th. A store for the display of samples and sale of the stock, not necessarily as stylish as the shops of some of the perfumers, but still tastefully and conveniently arranged.

THE TOOLS OF THE PERFUMER.—These instruments are in some measure similiar to those used in many other branches of manufacture.—There are three series: 1st, those used in the manufacture of pomades and oils; 2d, those employed for

distillation; 3d, those wrought with in the making of soaps.

For the pomades and perfumed oils, there are required cleavers and blocks with which to mince the fats, mortar and pestle of iron for rubbing them up, caldrons in which to melt, ladles to skim, and sieves of horsehair, canvas, or very fine iron wire, through which to strain, a *bugadier* or macerating vessel for the *pomades infusées* (this vessel should be sufficiently large to contain 500 pounds of melted fat and 150 pounds of flowers), a press, a copper gutter therefor, and some pieces of canvas for enveloping the *marc*, whilst being pressed.

For the pomades made without infusion, there is required a frame, composed of four pieces of wood tightly fitted together. In this frame is a glass, upon which the pomade is spread out with a spatula.

There should be a large number of this useful apparatus. When filled, they are piled one upon the other; the top layer is to be covered to prevent the action of the atmosphere.

No special utensil is required for the perfumed oils to be made by infusion; when, however, a *small* quantity is to be prepared by the process of *enfleurage*, it is well to have one or more frames of iron stretched over with pieces of muslin soaked with

oil, and afterwards covered with flowers. In the opposite case, it is necessary to use the following arrangement—that is, an ordinary wooden box, of one and a half feet length, the same breadth, and from one to two feet in height, according to the number of frames it is to receive, with an opening at the side through which to introduce them. This box must be lined with tinned iron. The frames to be placed in this chest or box, are of wood, one inch in thickness, or of iron, and consequently much lighter. They are to be arranged at intervals of two inches from each other. If this operation seems too tedious, then substitute plates of tin, pierced with numberless holes, and stretched over with cloths of *white* cotton three or four folds in thickness as may be necessary. At the bottom of the box is a shallow tin drawer, to receive the oil dripping through the cloths, and so fixed as to be easily removable when the side is opened. To prevent the evaporation and waste of the perfumes, there is adapted to this box a tightly fitting cover lined with tin.

APPARATUS FOR THE MANUFACTURE OF ALMOND PASTE AND OILS BY EXPRESSION.—This branch requires sieves to separate the almonds from dust and foreign matters, a mill to reduce them, and

bags in which to inclose the ground mass for pressure. Sometimes the bags are replaced by round or square buckets or vessels, pierced through their circumference to facilitate the flowing off of the oil, and in which the mass is submitted to the action of a sufficiently powerful press. To simplify and improve the work as much as possible, the almonds intended for pastes are sometimes scalded, put into a large basket, and drained, thence spread upon hair-sieves or frames to dry, then passed through the mill, and afterwards pressed—the remainder of the process being as before mentioned.

For the liquid almond pastes, it is necessary to have a mill resembling those for preparing the vinegaretted mustard pastes, or *moutarde des vinaigriers*.

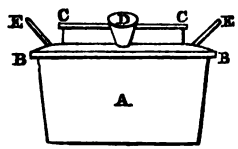
INSTRUMENTS FOR DISTILLATION.—Distillation is the most important and interesting branch of the perfumer's art; as, by its assistance, the different essences, spirituous scents, essential oils, fragrant waters, eaux de Cologne, and the vinegars are made.

The chief utensil is the alembic, or still, a vessel of tinned copper or tin, and sometimes of glass. Among the many arts in which alembics

are used, no one more frequently requires those of glass than that of the perfumer. This is owing to the volatility of much of the material to be distilled, and the consequent care and nicety requisite in the operation.

The alembic (Fig. 1) consists of three distinct and separate parts—the *body*, the *head*, and the *cooler*.

Fig. 1.

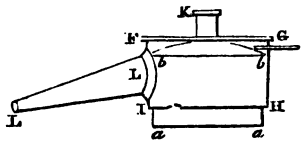


A exhibits the first, which is nothing more than a kettle in the shape of an inverted truncated cone. It is walled up in brick and mortar, the flange *B B* resting on the furnace, and serving to hold the body firmly in its bed. It is generally of the same breadth as depth, with a bottom inwardly convex, so as to give greater heating surface, and a neck *C C* converging towards its opening. On this neck are placed a socket *D*, and the two handles *E E*.

The capital or head (Fig. 2) of the still is made of tinned copper for larger vessels, and of tin or

pewter for smaller apparatus. It is cylindrical, terminating in a spherical hood or cup.

Fig. 2.

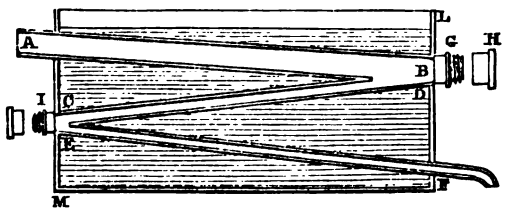


F G H I is the cylindrical part, with a neck *a a* affixed beneath, and so made as to fit nicely into the opening *C C* of the still (Fig. 1). The extreme top is soldered at *b b*, a little below the superior edge of the cylinder. In the centre of this head is a socket *K*, and in the side is soldered a slightly-conical pipe *L L*, called the *beak* of the alembic.

The materials for distillation are put into the body, the head placed on, nicely adjusted and well luted, and the fire kindled in the furnace. By the action of the heat, the volatile parts are disengaged in vapor, and collect in the capital, from whence they pass through the beak into the cooler or third piece, where they are refrigerated and condensed—hence its name. This refrigerant is of various forms. Sometimes a tube extended to some length; then, again, it is spiral, and takes

the title of *worm;* but this shape renders its cleansing difficult. Here, below, is a condensing apparatus, economical, convenient, and simple.

Fig. 8.



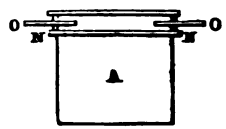
It consists of three cylindrical tubes *A B C D E F*, each three feet long, and soldered one to the other, so as to form a continued connection. The first is conical at *A*, for the reception of the beak of the still, together with which it is luted: at *B* it is soldered to the end of the second tube *D*, forming a nozzle. These two joined together are soldered to a cylindrical copper ferrule *G*, having a screw at its extremity, and covered with a stopper *H*, cut with a corresponding screw, and fixed together with intervening leather washers, so as to insure an hermetical jointure of the two tubes simultaneously. The tubes *C D* and *E F* are similarly adjusted. The whole apparatus is fixed, at the points *A G I F*, in a bath *L M*,

which is filled with cold water constantly renewed, during distillation, by the entrance of fresh water at the bottom, which drives off, through a tube, the water which becomes heated, and then always occupying the uppermost part of the bath. The modus operandi of this apparatus is easily explained. The vapors enter into the large tube *A B*, and are there condensed and run off slowly in liquid form into the slightly-inclined tube *D C*, and from that again into *E F*, and, as they are continually in contact with cold water, the liquid soon cools to the temperature of the atmosphere, and falls into the receiver through the tube *F*. If six feet of passage-pipe should be insufficient to cool the liquor, the apparatus can be enlarged by merely increasing the number of tubes. It is not requisite that the breadth of the bath *L M* should be great; for instance, supposing the diameter of the tube *A B* at three inches, then seven or eight inches width are sufficient for the continuous renewal of the water. This bath is of wood lined with zinc or copper. The connections of the tubes are such as to allow their cleansing at pleasure, by rubbing the interior with hair brushes and water until all smell is removed. At the bottom of the bath is conveniently placed a stopcock,

through which to let off the water after the completion of the distillation.

THE WATER-BATH.—This most useful fixture for distilling very volatile substances enables the perfumer to regulate his temperature so as not to exceed 212° F.

Fig. 4.

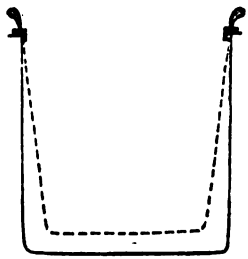


It is a movable cylindrical vessel of tin or tinned copper, fitting and sitting in the aperture *C C* of the still *A* (Fig. 1), and resting therein, by its collar or flange *N N*, so that its bottom does not reach that of the cucurbit. It is placed in and taken out by the handles *O O*. The neck *aa* of the capital is made so as to be used to the still either with or without the bath.

Fig. 5 exhibits a water-bath complete, the inner vessel represented by dotted lines being the recipient for the materials, and the outer jacket, the water-holder or heating medium.

The mode of operating by this latter plan is to place the selected materials in the kettle, lute on its

Fig. 5.



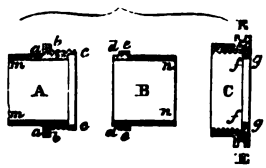
head, and through the socket *D* (Fig. 1), pour in the water. The top of the capital being externally concave is filled with a layer of powdered charcoal, which, as a bad conductor of heat, prevents the condensation of the vapors in that part of the head and their consequent falling back into the still.

FITTING OF THE TUBES.—In most instances it answers to lute the joints with a mixture of powdered quicklime and the white of eggs or solution of glue, and then to cover these joints with pieces of cloth smeared over with the same mixture a little more diluted with glue solution. But this mode is not always suitable, for in large operations especially, other means guaranteeing more security must be employed, and such are shown by Fig. 6.

These three pieces *A B C* are called ties or knuckles. The first has a collar or flange *a a* upon

which is placed a leather ring: the part *b b* is screw cut and fitted into *c c* to receive the neck *d d*

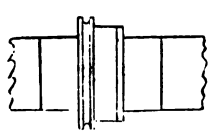
Fig. 6.



of the piece *B*. This piece has a collar or flange *e e* that supports the whole part *g g* of the piece *C*, which, by means of its interior screw *f f* fitted to the exterior screw *b b*, firmly fixes the intermediate piece *B*. One of the tubes to be fitted is soldered interiorly to the piece *A* at *m m*, the other similarly fixed to *B* at *n n*, and the ring *C* loosely run upon the last tube. When the two tubes are brought together so that the neck fits to the groove *C*, the ring being screwed up by turning *E E*, they are then accurately and firmly fastened.

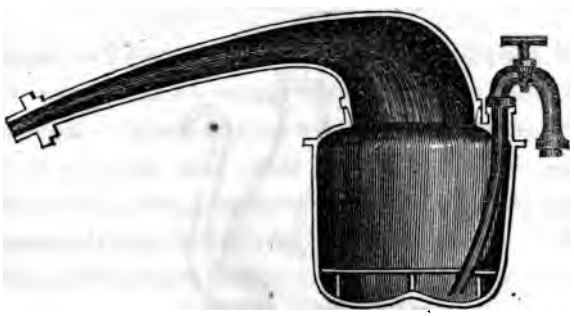
The figure below exhibits this fastening or coupling screw fitted together.

Fig. 7.



DISTILLATION BY STEAM.—This mode of distillation is particularly applicable for making distilled water from leaves, flowers, roots, and similar substances, and the form of apparatus most convenient for it is shown by Fig. 8. It consists of a tinned cop-

Fig. 8.



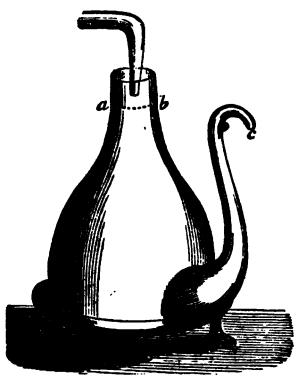
per body and head, of the form represented by the drawing, with a perforated false bottom *b*, Fig. 9,

Fig. 9.

which serves as a platform for the support of the charge of leaves or material. The steam is introduced through the pipe *a* beneath the platform, and

passing over through the beaker into the condenser, carries along the oil which it takes up during its transit through the still, and deposits it in the Florentine glass receiver, Fig. 10. The beak *c* is adjusted and luted to the condenser, Fig. 3.

Fig. 10.



GLASS ALEMBICS AND RETORTS.—To procure liquors of a very delicate perfume, recourse is had to rectification, that is, redistillation of the liquid already distilled, and for this purpose the water or sand bath is necessary. For the preparation of the vinegars, the acid properties of which are so corrosive of copper, it is always better to use glass or stoneware vessels.

Glass retorts, as shown by Figs. 11 and 12, when of large size, are generally tubulated, that is, pro-

Fig. 11.

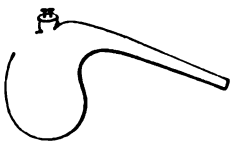
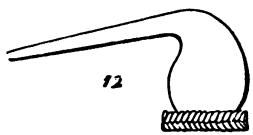


Fig. 12.



vided with a stoppered tube at the top of the arch or bend, so as to render their refilling practicable and easy without moving them from their beds.

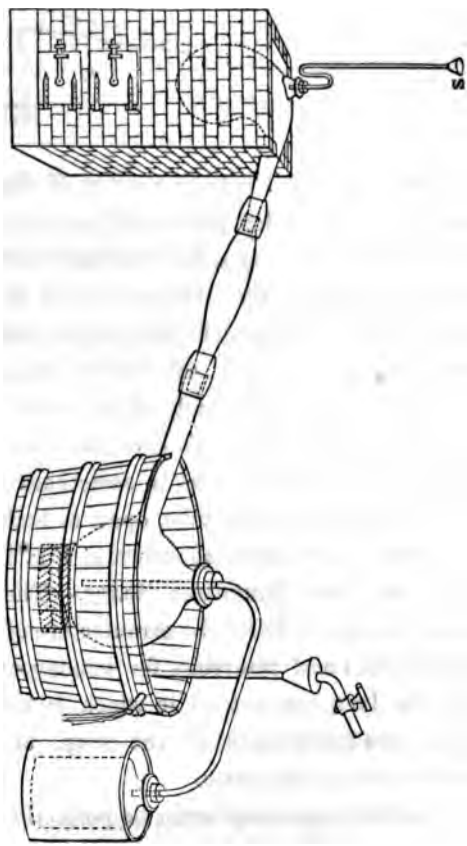
The liquid may either be put in all at once through a funnel, or in detached proportions, and gradually, by means of a tube at *S* (Fig. 13), adapted to the opening, and, at the same time, serving as a safety-tube. To give more length to the beak of the retort, there is sometimes added and affixed thereto a glass tube, open at both ends and bulging in the centre, as shown at Fig. 13.

Apparatus for Perfumed Soaps.—The principal utensils, requisite for the manufacture of soap, are the lye-tubs and reservoirs for making and receiving the lyes, the kettles in which to compose and boil the ingredients of the soap, and the frames for cooling the paste.

The lyes for toilet-soaps must be perfectly color-

less and clear, and the vessel in which they are leeched should be of material upon which they are

Fig. 18.



without action. White wood answering for most purposes, communicates to the lyes a brownish-yellow tint very prejudicial to the whiteness of the soaps. It is better to use iron-bound brandy-pipes lined with lead. Their cost is much less than wooden vats of equal capacity; and several months' exposure of the lyes therein scarcely suffices to give, with the most sensitive reagents, any proof of the presence of lead. The lyes, even after several days' standing in these vessels, are white, clear, and suitable for very fine soaps, besides having retained more of their causticity. These vats last much longer, and even when worn out, still possess an intrinsic value as old lead, whereas those of wood, after a brief use, are entirely worthless.

The kettles should be of iron plate; for other material would be unsuitable. Those of copper oxidize easily at the commencement of saponification; and those of cast-iron, though economical in price, being brittle and readily broken, the cold lye frequently produces a sudden and unequal expansion of parts of the vessel and causes it to crack. With precaution, however, this danger can be avoided, as is the case in England, where the cast-iron kettles are in vogue. France gives the

preference to iron-plate, as nearly all the soap-boilers there construct their boiling-kettles of that material.

For the fusion of those soaps which are to form the basis or body of the toilet-soaps, it is nevertheless proper to use an untinned copper kettle.

The preparation of the flotant soaps requires a copper kettle heated by a water-bath, and provided with the following apparatus.

Fig. 14.

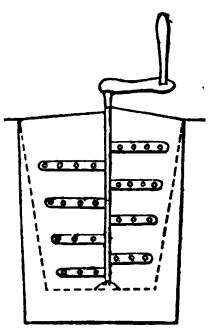
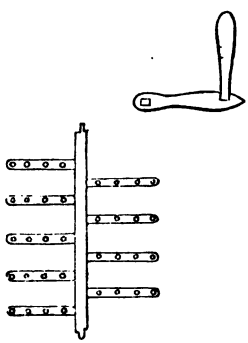


Fig. 15.



At the centre of the bottom is fixed a pivot upon which is placed a wooden beam, with wings or paddles at its circumference, fitted perpendicularly to its axis and turned by means of a crank arranged at the top.

An ordinary plane is requisite to reduce the soap to shavings.

The frames are square basins, of circumference proportional to their depth, and are recipients of the soap after it has been boiled and is ladled out to cool. Sometimes they are divided off by transverse partitions of wood grooved into the sides. In the sides too and near the bottom are openings through which to run off the lye when it is necessary to give it issue; but, for the most part, with toilet soaps, this arrangement is useless, for they do not drop any of their lye. Then the frames which, for the first, are constructed of well-jointed slabs, are for the latter made of plank at the side, and bricked at the bottom. To prevent an adherence, and the consequently difficult removal of the soap, this bottom is sprinkled with slaked and sifted lime.

The temperature of the rooms in which the frames are placed should be so regulated as to prevent either a too rapid drying in summer, or a too slow in winter. The sizes of the bars into which the mass of soap is to be divided are marked out with a scribe upon its surface; these bars are again in their turn subdivided into forms and shapes as desired.

The dimensions of the bars or loaves of soap into which the mass is first divided, are about three inches in thickness and nine inches in width. The size, however, varies, but in all cases should be so regulated as to give subdivisions into a number of usual-sized tablets without wastage by trimmings.

Below are given illustrations of several pieces of necessary apparatus.

Fig. 16. A rammer, for crushing the soda to be used for making the lye.

Fig. 16.

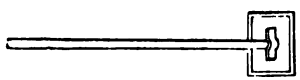


Fig. 17. A vessel for throwing water upon the lime.

Fig. 17.

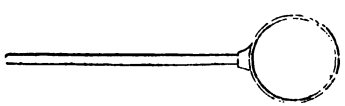


Fig. 18. A spade, for mixing the soda with the lime, and for emptying and cleansing the vats.

Fig. 18.

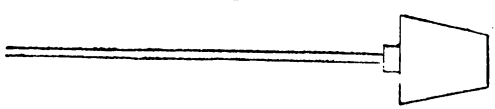


Fig. 19. A bucket, in which to transfer the lyes from the reservoirs into the kettles.

Fig. 19.

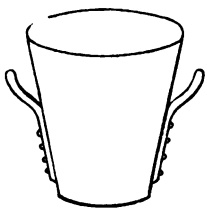


Fig. 20. A vessel with a long handle, for lifting the soap-paste from the kettle.

Fig. 20.

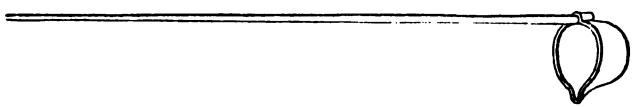


Fig. 21. A walnut board, pierced through with a long handle, and used for mottling and liquefaction.

Fig. 21.

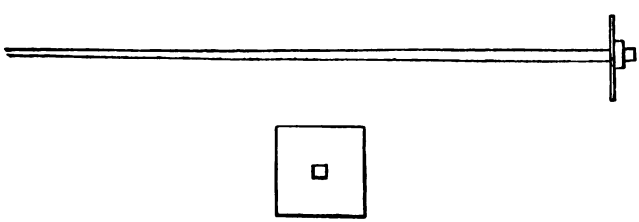


Fig. 22. A shovel, to remove the block of soap from the frames.

Fig. 23. A *dentier*, a tooth-shaped instrument for subdividing the blocks into bars.

Figs. 22, 23.

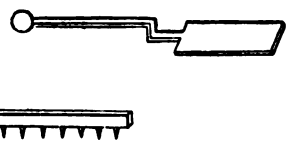
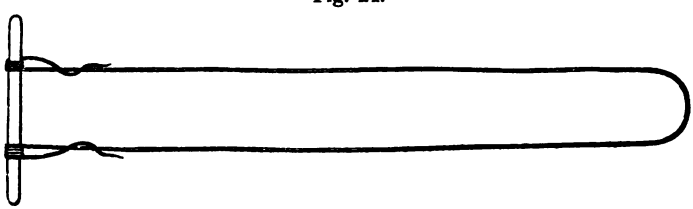


Fig. 24. A *tirette*, or round piece of wood, at each end of which is an iron wire, for the division of the bars into tablets or cakes.

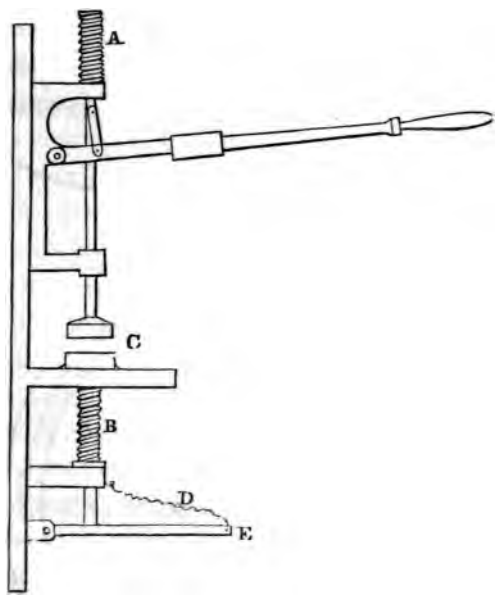
Fig. 24.



In addition to the foregoing furniture, it is requisite to have a press of proper construction, with an accompanying assortment of dies, formed and cut to taste, with which to ornament the cakes by impressions in relief or otherwise. Below is the figure of one of approved construction, the spiral springs *A B* permitting the ejection of the soap from the form immediately after being impressed; whilst

the box, or form *C*, containing the dies, being movable, is easily fitted with new devices when a change is desired. These dies are made of any pattern by most of the experienced mould-makers. The string *D* is merely to hold up the bar *E*, which is used for pushing up the die which is to be cleansed or changed.

Fig. 25.



The designs for dies vary with the taste of the manufacturer; but the most popular device is the medallion and the floral. The favorite forms of

CHAPTER V.

THE RAW MATERIAL.

It is not intended to treat of *all* the substances used by the perfumer, for such would be an endless and useless task, there being no occasion for a description of flowers, or fruits, the properties of which are almost universally known; for instance, the rose and jasmine, the almond, lemon, and such like. But there is, nevertheless, information necessary as to the choice of raw materials, their gathering, preservation, &c., for, upon a correct knowledge of such matters, depends much of the economy and success of the business. That the instruction may be complete and systematic, those substances of the mineral kingdom will be first spoken of; 2d, those of vegetable origin; and 3d, such as are of animal nature.

Of Substances from the Mineral Kingdom. —These substances are little used by the perfumer, and it would perhaps be well if they were even less

frequently employed, for all the mineral products are in a greater or less degree noxious.

Talc.—The kinds suitable for perfumers' use are, 1st, the talc of Hauy, found abundantly in the Tyrolese mountains, and sent to market under the name of Venetian talc. It is soft and unctuous to the touch, sometimes greenish-white, at others yellowish, gray, or deep green; the first shade always, when bright, indicates an article of good quality; 2dly, the scaly talc, improperly called *French Chalk*. These talcs in powder are used as the basis or body of rouges, or paints.

Bismuth.—White rouge is made of this metal. To guard against any possible admixture of arsenic, that bismuth should be selected which is well and definitely crystallized. When purchased in plates, those of large size must be selected, and be submitted in a crucible, to a heat sufficient for the expulsion of any remaining arsenic. This metal is of moderate price, and comes chiefly from Saxony.

To prepare the white rouge, or *pearl white*, the pure metal is dissolved in pure nitric acid. This nitrate, thus formed, when dropped into clear water, deposits a beautiful white precipitate of subnitrate of bismuth, which, after being repeat-

edly and thoroughly washed with clean water, is that preparation formerly called magistery of bismuth. When solutions of muriate of soda are added during the washing, the precipitate is changed into what is chemically speaking, a subchloride of bismuth, also known by the name of *pearl white.*

Ceruse.—This article, commonly called white lead, or carbonate of lead, differs from those two substances previously mentioned, in being capable of adulteration with chalk or sulphate of barytes, whilst the former will not bear admixture. The first quality, or perfectly pure carbonate of lead, is that termed *krems*, or *silver white.* The second quality, or *Venetian white*, consists of equal quantities of carbonate of lead and sulphate of barytes; the *Hamburg white*, or third quality, of 1 part carb. of lead to 2 parts barytes; and the fourth quality, or *Holland white*, of 1 part lead to 3 parts barytes; this last, however, is too inferior for any but very common uses.

The krems white, which, when pure and fine, should be very soft and smooth, makes a beautiful white rouge.

As all materials intended for paints or rouges should be proof against the action of sulphuretted

hydrogen, which is constantly escaping into the atmosphere from various sources, these substances are objectionable, since both lead and bismuth compounds are darkened by contact with that gas. A good substitute is the *precipitated* carbonate of lime, which is an impalpable powder of great softness and whiteness, unchangeable by air or gaseous emanations, and not injurious to the skin.

Vermilion.—This is a sulphuret of mercury, used by the perfumer, for coloring certain kinds of cosmetic pastes, pastilles, and more especially soaps. There are two kinds of vermilion, the natural and artificial. That from Holland is the most preferable.

The perfumer should be careful in examining and testing the vermilion before purchasing, for it is not unfrequently adulterated with red lead, colcothar, dragon's-blood, or brick-dust.

When thrown upon a highly heated plate it volatilizes without residue, its vapor carrying with it no disagreeable odor.

Saltpetre.—This salt (*nitrate of potassa*) is used in the preparation of fragrant pastilles. It is a secondary material with the perfumer, and hence the necessity of merely mentioning the characteristic properties of a pure article. It crystallizes in long

hexahedral prisms, terminating at the top in six faces. These pyramidal crystals, rarely regular and transparent, are generally in agglomerated masses, and striated. The nitre has a cooling saline and piquant taste, is promotive of the secretion of saliva, and is soluble in both cold and warm water, but more readily in the latter.

OF SUBSTANCES FROM THE VEGETABLE KINGDOM.—This department comprises the most important materials used by the perfumer, and which, in kind, are so numerous as to render a classification necessary.

1. *The Roots and Woods.*—*Vitivert* of India, a species of dog-grass, of agreeable odor, in much request for many years.

Orris root (*Iris Florentina*).—That which is flabby and worm-eaten must be rejected.

Angelica root (*A. Archangelica*), and also the tops of the flowers.

Galangal root.—The small species are preferable. The flowers of this plant also yield a very penetrating oil of agreeable odor.

Calamus.—This root (*Acorus calamus*) is of an aromatic taste and smell. That which is reddish exteriorly and white within should be selected.

Ginger.—This root (*Amomum zingiber*), growing in the East and West Indies and Mexico,

enters into the composition of many aromatic waters, and of some dentifrices. Its fracture should be clean and resinous, its color in the interior whitish yellow. That which is fresh, dry, and difficult to be broken, of a warm and pungent taste, and without threads, is the best. The ginger found in commerce is of finger size, with a wrinkled epidermis (of a yellowish-white, if it comes from Jamaica).

This last is longer and more slender, white interiorly, and gives a powder of an agreeable odor and very warm and spicy taste. By distillation, it yields a pungent volatile oil.

Souchet.—The root of the *Cyperus longus* emits an agreeable odor, similar to that of the violet. It is generally macerated in vinegar, and after being dried in the air-chamber, reduced to powder.

Nard, or Spikenard.—The root of the *Nardus Indica.*

Brazil wood.—This is used for coloring the common rouges, the soaps, paste, &c. That from Pernambuco is most valued, and being of good quality is very hard, compact, and light reddish-brown, when first cut, but gradually heightening in color by exposure to the air.

Guaiacum wood.—This wood, very useful for some much esteemed odontalgic liquors, grows in St. Domingo, Jamaica, and other West India Islands. It is hard, compact, and resinous. Its raspings, often mixed by the druggist with those of boxwood, are of a much deeper yellow than the latter, and are easily distinguishable from them by their sharp and repulsive taste.

The gum has a very agreeable odor, which it emits when kneaded with the hand or thrown upon burning-coals.

Aloe wood.—There are three kinds of aloe wood, all of which come from China. 1st. *Calambac*, which is so rare that, even in Asia, it brings its weight in gold. The aromatic odor which it exhales, when burning, procures its employment as a perfume in the temples. It is very heavy, unctuous, resinous, and of a reddish-brown jasper. 2d. *Agallochium wood*, which, though much resembling the preceding, differs from it in being deficient in the odor of myrrh; moreover, too, its color is orange, and its fracture waxy. It is this kind that is generally met with in commerce. 3d. *Aigle*, or *garc wood*. This is not bitter, like the two preceding, but has a greenish-yellow color and musky odor, is fibrous, sometimes spongy, and

when slowly burned emits an agreeable odor. The perfume and ready combustibility of the three species of aloe render them particularly fitted as ingredients of *fuming pastiles.*

Sandal wood comes from the East Indies; is either white, yellow, or red. The first two have a smell resembling that of the rose, though stronger, especially in summer, and when it has been chafed for some minutes. The yellow is that most used in perfumery. The harder, heavier, and more odorant it is, the more is it esteemed.

Rhodium wood.—The odor of this wood is both agreeable and strong, and so resembling that of the rose, that it is sometimes called *rose wood.* It comes from the Canary Islands, but also from the Island of Cyprus, to which place it is supposed to be indigenous, hence its other title of Cyprus wood. It is pale-red, and slightly bitter. That which is dry, knotty, large, and odorous, is the best. The perfume which it communicates is of a very permanent character.

St. Lucie, St. Luce, or Mehabeb woods.—The first two kinds come from Switzerland. This wood is reddish-violet, and of an agreeable odor, increasing with its age.

Pallissandre wood.—This wood was formerly

much used for the colored powders. It is procured in small pieces, or as sawdust, at the turners and cabinet-makers.

Sassafras wood.—The United States furnishes the wood. The odor chiefly resides in the bark. The raspings are used, but as they lose their perfume by age, only as much should be rasped at any one time as is required for immediate use. The odor and taste of the *bois de terre* of Ceylon resemble those of sassafras.

Cinnamon (the bark of the Laurus cinnamomum).—That from Ceylon is the most valued. The cinnamon of China, the bark of which is thick, rough, and large, serves only for the commoner preparations. The first is known by its thin bark, astringent, highly aromatic and warm flavor, and deep color. The epidermis is much preferable to the inner bark of the tree. Among the cinnamons of Ceylon, there are the *royal cinnamon* and the *camphorated cinnamon*, which owes its name to the odor of camphor which it exhales.

The druggists adulterate the cinnamons in two ways. 1st. They mix that of *Ceylon* with that of *Cayenne*, the white cinnamon with that of China (*cassia aromaticum*). 2d. They deprive them of a part of their volatile oil by infusion in alcohol, from

which latter the oil is afterwards separated by distillation. The feeble smell and taste of the cinnamon easily detects the fraud.

Cannelle giroflée (clove bark), is generally known under the vulgar names of *bois de crabe* or *giroflée*. As found in commerce, it is in rolls of about two feet length, composed of numerous smaller rolls, placed one within the other. The yellowish epidermis presents a smooth surface, and when it is wanting, the bark is of a deep brown. Its fracture is fibrous, and the odor that of cloves, but weaker.

The sandal, ebony, cocoa, and St. Lucie woods make elegant boxes for certain lip salves and cosmetic pomades; as they preserve their perfume when kept free from moisture, air, and dust, and are tightly wrapped in paper envelops.

LEAVES AND FLOWERS. — The perfumer uses these parts of the following-named plants: Rosemary, large and small gentian, the different herbs, sage, rue, thyme, balm, wild thyme, common mint, peppermint, cresses, fumitory, horehound, motherwort, lavender, wallwort, vervain, tansy badiane, valerian, absinthe, juniper berry, balm mint, marjoram, fraxinelle or white dittany, dwarf chamomile, comfrey, hyssop, dwarf centaury, mugwort, bugloss, mullein, sweet basil, betony, balm mint,

holy thistle, melilot, plantain, veronica, St. Johnswort, ground ivy, and other aromatic and vulnerary herbs, of which the perfumed waters and vinegars are confectioned.

They are used in the green state, and those are selected which are sound and have been gathered at the flowering time of the plant, and in a dry season, and after the sun has dissipated the dew. These last two conditions are particularly requisite when the leaves are to be dried and preserved, and are equally indispensable for all the fresh leaves and plants which are largely employed. This precaution is necessary to insure a supply for winter. The leaves are dried by exposure to the sun or in a drying-room, upon wicker-waiters or frames. They are stirred from time to time, and as soon as the leaves become friable, they are to be taken out and exposed to the air for two or three hours, and then packed in tight boxes and set away in a dry place.

FLOWERS.—*Roses.*—It is the pale rose which is distilled for the water and essence of rose. It also is a component part of powders, pastiles, cassolettes, &c. It is used both fresh and dried.—*Orange and lemon flowers, acacia, jasmine* (that of Spain and Arabia is preferable to the French),

seringa, tuberose. Solomon's seal, onagre, and many other flowers, whose odor resembles that of the orange-flower, are useful and agreeable addenda thereto.

Jonquil, hyacinth, daffodil, lily, carnations.—All these flowers must be used fresh. Hyacinths which are double and highly colored, and carnations which are red, very large, and fragrant, should be selected.

Lilac, heliotrope, myrtle, violet, lily of the valley, mignonette.—These flowers furnish very sweet and choice perfumes.

FRUITS.—*Lemon, bergamot, orange, cedrat, almonds, filberts, nutmegs.*—In purchasing nutmegs, choose such as are heavy, gray, smooth, red interiorly, unctuous, and odorous when grated.—These characteristics indicate a good quality. ***Ben***, a species of nut from the *mohringa optera*, an Arabian plant, yields by expression a perfectly insipid inodorous oil, which is useful for extracting the aroma of flowers.

Cocoa-nut.—The properties of this nut are introduced into some pomades under the form of butter of cocoa. There are several varieties of cocoa in commerce, those of Caraccas, Berbice, and Surinam. That from Caraccas is larger, slightly ob-

long, and covered with a grayish dust. The nut is brown, and divides easily into irregular fragments, and is often tainted with a partial mouldiness.

Cashew, or Cashoo.—There are two principal species of this nut, the Bengal and Bombay: that of the former is a little flattened, and of a stronger color than the latter. Its fracture is almost vitreous, the savor both astringent and slightly bitter, the after taste sweetish. The Bombay cashoo is in small masses of 4 oz. or with a dull fracture, reddish, undulated, and marbled; sometimes it is friable, melts readily in the mouth, has an astringent but not bitter taste, slightly sweetish, lasting and agreeable. The cashoo with which the different kinds of pastiles are perfumed is the product of two different trees, the *mimosa* and *areca*. The unripe fruit, slightly bruised, is macerated in water, the decoction is afterwards evaporated to thickness by a hot fire, and the desiccation then completed by the heat of the sun. The pastiles of cashoo are used for correcting the fetid odor of the breath.

SEEDS.—One of the most useful is *Vanilla*, which comes in long heavy beans, that give out an agreeable aromatic odor when of good quality. The Mexican or Peruvian is the best.

Fennel, fenugrec, coriander, cumin, daucus of Crete, caraway, chouan.—All these aromatic seeds should be selected green, fresh, large, fragrant, and as free from foreign matters as possible.

Ambrette (purple sweet sultan).—This seed emits simultaneously an odor of amber and of musk, especially when it is fresh and dry. The Martinique ambrette is most fragrant.

BALSAM AND RESINS.—The term *balsam* was formerly applied to all liquid vegetable resins. The French chemists confine the term to vegetable substances composed of benzoic acid with more or less volatile oil, but as this would exclude copaiva and some other substances commonly called balsams, the German chemists retain the old acceptation of the term, and divide them into those containing and not containing the acid. The balsams (properly so called) holding benzoic acid, have an aromatic, usually agreeable odor, and warm acrid taste.

Balsam of Peru.—This resinous liquid, the juice of the *myroxylon Peruiferum*, is used in the composition of pastiles, and certain pastes and cosmetic liquors, and in the preparation of court plaster. There are three kinds, two liquid and one solid. That called white balsam of Peru, is seldom

found in commerce; we get only the black liquid balsam, and concrete balsam.

The black balsam of Peru is obtained by bruising and decocting the stock and branches of the same tree. A portion of the balsam rises to the surface, whilst the heavier remainder sinks to the bottom; they are both collected and mixed together, and form a deep brown liquid of a syrupy consistence, agreeable aromatic odor, and warm acid bitter taste, and which in thin layers is transparent. When set fire to, it inflames, is insoluble in water (except a small portion of constituent benzoic acid), soluble in alcohol and the volatile oils, but immiscible with the fat oils.

Balsam Tolu.—This balsam exudes from the *myroxylon Toluiferum*, a tree growing in Tolu, near Carthagena, where it is cultivated to obtain an article of better quality. To collect it, incisions are made into the bark; through these it issues and is collected in vessels formed of the black wax of the country, from whence it is transferred into small gourds where it thickens and so hardens by time that it becomes pulverizable. It is brilliant yellow, fragrant when heated, softens under the teeth, but does not mix with the saliva, liquefies by heat, and when thrown on burning coals, inflames and gives

out an agreeable aroma. Water, though it does not dissolve it, takes up a portion of its benzoic acid and is slightly retentive of its odor.

Balsam of Mecca, or Balm of Gilead.—This is a species of turpentine or liquid resin to which the Orientals ascribe such virtues as obtain for it a very high price. It is always comprised among the complimentary presents from the Grand Seignior to the different sovereigns.

This balsam, the product of the *amyris opobalsamum*, generally comes in small leaden bottles or jugs exteriorly embellished and gilt. It is whitish, of an agreeable penetrating odor, assimilating to that of turpentine when mixed with essence of lemon, and of an acrid, bitter, and astringent taste. When fresh and of good quality it is sufficiently light to swim upon water, on the surface of which it spreads itself. Age thickens and yellows it, rendering it transparent and deficient in odor.

Labdanum.—A resinous exudation from the *cistus creticus*. The finest is dark-brown exteriorly and grayish internally, dry, porous, and brittle, but softens between the fingers, and emits an agreeable amber-like odor. *Common labdanum* is analogous in properties, but does not soften between the fingers, and is of inferior quality.

Storax.—This is a fragrant balsamic exudation from the *liquidambar styraciflua.* It is abundant in very warm countries, and comes to us by the way of Marseilles from the Levant and many parts of Syria. That which is in mass, of a reddish color, soft, and greasy, and of agreeable odor, is to be preferred to such as is dry and filled with dirt and dust.

Dry Storax.—This article is brought from Marseilles or Holland. It is in reddish lumps, filled with *tears*, interiorly white and exteriorly reddish, and sometimes also separated, of a middling consistence, and of a mild and sweet odor approaching that of the black balsam of Peru. Select those *tears* which are handsome, separate, of color as above, and as little bitter as possible.

Liquid Storax.—Genuine liquid storax is the expressed juice of the bark and young twigs of the *styrax officinale*, growing in the Islands of Cos and Rhodes; but the artificial substance is composed of four ingredients melted together, viz., storax, resin, oil, and alcohol, beat up with water to impart an unguent consistence. That which is gray, the least humid, and most free of dirt should be selected.

Myrrh.—This gum resin is in regular tears and

lumps, of a reddish-brown color, fragrant odor, and warm bitter taste. It is the concrete juice of the *balsamodendrom myrrha*, a small tree, indigenous to Abyssinia and Arabia Felix. That myrrh is best which is in tears.

Dragon's Blood.—This deep-red resin is the product of the *calamus rotang* and *C. draco*, and is imported from India. It is inflammable, and, whilst burning, emits an odor like that of liquid storax. It is anti-scorbutic, and hence is an ingredient in washes and preparations for the gums. That in small, clean, transparent tears, and which gives a handsome deep-red powder, is the best quality, but is very rare. That most generally used comes to us in sticks, enveloped and tied around, and gives a deep-red powder.

Mastich.—A whitish, transparent resinous exudation of the *pistacia lentiscus*, is inodorous until rubbed, and then emits a fragrant odor.

Benzoin.—This gum resin is an exudation from the *styrax benzoin*, a tree native to Sumatra. That is best which is in tears, bright exteriorly, and white within, and mottled with clear transparent red and white veins, of a fragrant aromatic odor, and as free from dirt as possible. Always reject such as is black, inodorous, and earthy, for

it is often factitious, and but a mere mixture of resin, incense, and other common material.

Catechu.—This is a Japanese word, signifying the juice of a tree. Cutch, as it is also called, is the product of the *acacia* or *mimosa catechu.* There are three kinds found in commerce. The best and rarest is the dull-red catechu, in lumps of about four ounces, astringent, not bitter, and of slightly sweetish taste. The brown catechu comes in round lumps of about three ounces, is astringent and bitter, without being sweetish, and heavier, browner, harder, and more inferior than the preceding. The catechu, in mass, as found in the market, is in fragments of about four ounces, enveloped in large fibrous leaves, and has an astringent bitter savor, but agreeable after taste, and a reddish-brown color bordering on black. Is of good quality.

Camphor.—The white, odorous, concrete substance obtained from the *laurus camphora* by sublimation.

Of Substances of the Animal Kingdom.—*Sponge.*—This cellular fibrous tissue is the produce of numerous almost imperceptible marine animals, called *polypi.* They are found adhering to stones at the bottom of the sea. Those from the Medi-

terranean are the most esteemed. Sponges which are fair-colored, soft, light, and susceptible of strong compression without diminution of bulk, are the best. The cells and meshes should be small, compact, and free from gravelly matter.

Coral.—Though analogous in its origin to sponge, is yet entirely different in its nature, it being almost entirely composed of carbonate of lime, whilst the former consists of the same elements as animal matters. It is a component of some dentifrice powders. There are the red, yellow, white, flesh, and parti-colored coral. The red is the most esteemed, but to the perfumer the shade is unimportant, as he can readily impart color to powders with which it may be mixed.

Ambergris.—The origin of this substance is uncertain, but it is supposed to be a bezoar of the whale (*physeter macrocephalus*). Perhaps it is a product of disease. It is found floating on the sea, especially near the coasts of Japan, Coromandel, and Madagascar, and also upon the coasts of various tropical climates. It is in small, irregular masses, of a deep-gray color externally, and light-gray within, of a scaly fracture, with yellow and sometimes black streaks. Its odor is very agreeable, peculiar, and diffusive; two grains, when

rubbed down with sugar and added to a puncheon of claret wine, imparting thereto a very perceptible flavor, by some considered an improvement. Its chief constituent is *ambreine*, which crystallizes on cooling from a saturated solution of ambergris in boiling alcohol. The best ambergris is softish, and somewhat waxy when cut.

The black amber is cheaper than the ambergris, but the perfumer should supply himself with both, as this material is frequently used in perfumery.

Musk.—This substance, strongly and agreeably odorous, is found secreted in a bag behind the navel of the adult animal (*moschus moschiferus*) native to Tonquin and Thibet. The musk of Thibet, much less valued than the other, and also called Bengal musk, is drier and less fragrant. Musk is originally a viscid fluid, but dries into a brown pulverulent substance; it is of high price, but, being very diffusive of its odor, a small quantity suffices to highly scent a large amount of perfumery. It is frequently falsified by the introduction into the pods or bags, of dried blood, or pieces of lead, by which to increase its weight. This last addition, however, though a fraud, does not vitiate the quality. The pods containing the musk should be dry and very fine, furnished with a slightly

brown hairy nap; such characteristics prove the musk to be good quality Tonquin, whilst a whitish down indicates an inferior article of Bengal. A good test of the quality is to perforate the pods with a wire which has been dipped in the juice of garlic, the dissipation of the smell of which proves the musk not to be adulterated.

Civet.—This semifluid substance, analogous in odor to musk, is secreted in a gland near the anus of the civet cat (*viverra civetta*), and also the *viverra zibetha.* Its perfume is attributable to an essential oil which may be separated by distillation. It must be used in very small quantities, for unless the odor is greatly diluted it is offensive, but mixed in minute proportions with other perfumes it strengthens their energies. It comes in small bags or pouches made of the skin of the animal, is of a pale-yellow color, and slightly bitter acrid taste. It is falsified by introducing into the bags either lead, earth, or dried blood, but these frauds are indicated by the marks of the inclosed incision.

Castor.—A strong-smelling concrete substance secreted in the preputial follicles of the *castor fiber*, or *beaver.* It diffuses a peculiar odor, and its virtues are impaired by age.

Lard and Suet.—This is the basis, or, in the

perfumer's language, the *body* of pomades. Its constituents are *oleine* (oil), *stearine* (suet), and perhaps margarine (from μαργαριτη, a pearl, which it resembles). These last two substances are separated from the first by heating the lard in a water-bath, *granulating* by slow cooling, and then pressing the mass in bags or between folds of brown paper, which absorbs the oleine or liquid part of the fat, and leaves the two other solid constituents. These latter are separated in their turn from each other by boiling ether, which lets fall the stearine during cooling, and afterwards the margarine by spontaneous evaporation. The two are very similar in their properties, though their point of fusion varies some twelve degrees. It is to the elaborate researches of Chevreuil, and again of Braconnot and others, that we are indebted for our knowledge of the nature of oils and fats, and consequently of the fact of these bodies not being purely proximate principles, but compounds, in variable proportions, of the aforementioned constituents. Lecanu it was who discovered margarine, and, on his authority, stearine is rarely present in fats of vegetable origin, the solid principle thereof being margarine.

There should be a standing arrangement with

the butcher for a constant supply of *fresh* white clean lard, tallow, mutton suet, and beef marrow, at fixed and reasonable prices, for such quantities as may from time to time be wanted for pomades and other preparations.

Bear's Grease.—This is the fat of the common bear, which is so frequently found in the western States, and even in our neighboring mountains. It is much used by itself, for the growth and preservation of the hair.

Spermaceti. This substance crystallizes spontaneously from the oil of the spermaceti whale, and, when purified, is crystalline, of silvery lustre, brittle, soft, and slightly unctuous to the touch. Possessing but little odor, it is of value to the perfumer only for its emollient properties, and enters into the composition of a large number of pomades, cosmetic pastes, &c. It should be kept well closed, for on exposure to air it becomes rancid and yellow. Its solution in boiling alcohol, on cooling, lets drop a deposit of brilliant scales, to which Chevreuil has given the name of *cetine*. That which is white, transparent, and unadulterated with wax or tallow, should be selected.

Cochineal.—A small, wrinkled insect (*coccus cacti*), indigenous to Mexico and New Spain, which

feeds on several species of cactus (*cactus opuntia* or *nopal*), and is scraped from the plants, scalded, and then dried in the sun. It is sometimes adulterated with colored dough, which can be detected by boiling water, in which it is soluble. That cochineal is preferred which is of a silvery appearance, and, when rubbed up, gives a brilliant crimson powder. The principal constituent is a peculiar coloring matter, called *cochinilin*, or *carmine*, and being much used by perfumers, we proceed to give the processes for its preparation.

PROCESSES FOR THE PREPARATION OF CARMINE.—*Common Carmine.*

Powd. cochineal, 1 lb.
Subcarb. potassa, 3½ drachms.
Powd. alum, 1 oz.
Isinglass, 3½ drachms.

The isinglass, divided into small pieces, is left to soak over night in water, and is then made into a jelly by being rubbed up with hot water. Boil the cochineal with the potassa, in a copper vessel containing five buckets of water; and quiet the effervescence by fresh additions of cold water. After some minutes' ebullition, remove the kettle from the fire, and place it on a table, at such an inclination as to permit the decanting of the liquor

conveniently. Throw in the alum, stirring the decoction continually. It changes color immediately, and takes a more brilliant tint. In fifteen minutes the cochineal falls to the bottom, leaving the supernatant liquid clear; it contains the coloring matter and perhaps a little alum in suspension. Decant into a sufficiently large vessel and place it upon the fire, adding the isinglass dissolved in much water and well strained. At the moment of ebullition the carmine rises to the top of the bath, and a coagulum forms, similar to that in clarifications with white of eggs. Remove the kettle then, and stir well with a spatula. At the end of fifteen or twenty minutes the carmine is deposited. Decant the liquor, and throw the precipitate upon a clean linen cloth, to drain and dry.

Fine Carmine.—In a large copper kettle, boil four buckets of water, from which withdraw two pounds of hot-water and pass it through a fine strainer into a stone pan, upon five well-beaten eggs, and place this emulsion aside.

Into the boiler holding the rest of the hot-water, turn a filtered lye of ten drachms of alicant soda, dissolved in four quarts of boiling-water, at the same time adding one and three-quarter pounds of coarsely-bruised cochineal, and stir the whole well

during a half hour's boiling. Remove the vessel from the fire and add fifteen drachms of pulverized alum, stir around once with a wooden spatula, and let the whole rest ten or twelve minutes, just until you observe that the violet-color has passed into a very intense scarlet-red. Decant the liquid into a suitable vessel, add the emulsion which was first made and laid aside, and give another boiling. Then filter through a fine linen cloth; this catches the carmine, and the liquor running off is used for the preparation of lakes. The remainder of the operation is as in the preceding method. The carmine is powdered, very finely bolted, and put up in bottles or tin boxes.

Superfine Carmine, by MADAM CENETTE.—Heat six buckets of river-water, and, at the moment it commences to boil, add thereto two pounds of finely-powdered cochineal; continue boiling for about two hours, and then put in three ounces of pure nitre, and immediately afterwards four ounces of salt of sorrel (binoxalate of potassa). Boil again for ten minutes, remove the vessel from the fire, and let it repose for four hours. Draw off the supernatant liquid with a siphon, and parcel it off into numerous basins, and place each aside upon a shelf for some three weeks, at the end of

which time there is formed a mouldy pellicle, which carefully remove with a whalebone, or ivory spatula, or a stick, to the end of which is affixed a small sponge. The water is then run off through a siphon, which reaches even to the bottom of the pans, for the carmine is so compact that it adheres. This carmine, when dried in the shade, is of an intensely brilliant hue.

Chinese Carmine.—Boil in a bucket of river-water two ounces finely-powdered cochineal, and add thereto sixty grains of alum; continue boiling for seven minutes; then remove the kettle from the fire, pour the contents into another vessel, and when it has settled, siphon off and preserve the liquor. Then prepare a solution of ten and a half ounces common salt (chloride sodium) in one pound of aquafortis, to which solution, whilst cold, add four ounces pure granulated tin, taking care to make no new addition of tin until that previously put in is entirely taken up. To the cochineal-liquor, rewarmed, this solution is added drop by drop, and thus is caused a precipitation of the carmine, which is separated by filtration or decantation, and dried in the shade upon plates of porcelain or stoneware.

German Carmine.—Boil six quarts of river-

water, and stir therein 2 oz. powdered cochineal. After six minutes' boiling, add 60 grains of powdered alum, and again boil for three minutes. Remove the kettle from the fire, and draw off the liquor through a siphon into a very fine filter or sieve. This liquor, parcelled off into numerous vessels of porcelain or stoneware, after three days' repose, deposits the carmine, which is to be separated by decantation and dried in the shade. The liquid running off, if allowed to stand several days longer, will again deposit a carmine, but of inferior quality.

Carmine d'Alyon.—In two and a half buckets of boiling-water gradually place one pound of powdered cochineal; stir the liquor constantly, and, after thirty minutes' boiling, add a weak alkaline lye of five drachms of soda to a quart of water. The whole having boiled for a half hour, the kettle is removed from the fire, and placed upon a table in an inclined position, and six drachms of alum stirred therein. After a repose of twenty-five minutes, the liquor, which is of a beautiful scarlet, is decanted into another vessel, and to it added the whites of two eggs previously beaten up with a half pound of water; the mixture is then well stirred with a spatula, and again boiled. Coagula-

tion ensues, and the carmine precipitates. The kettle is withdrawn from the fire, and left undisturbed for a half hour, that the carmine may all be deposited; the liquor is then decanted, and the carmine collected and drained upon a fine cloth filter, and dried upon frames or plates covered with white paper. A pound of cochineal gives by this process a half ounce of carmine.

Liquid Carmine is pure carmine, dissolved in aqua ammonia.

I would recommend that the water used in these processes be distilled, for nearly all spring or well water contains lime, or other constituents, prejudicial to the economy of the method and beauty of the product. Even rain-water, the next most applicable, is not free from matters hurtful to the manufacture of this article.

Carmine, though of a very high price, is used for coloring the better qualities of pastes, pomades, and other articles of perfumery.

Wax.—This well-known material consists of two different principles, one of which (*cerin*) is soluble, and the other (*myricin*) insoluble in alcohol. Wax naturally is yellow, but can be bleached perfectly white by exposure in thin ribbons to light, air, and moisture. It is this white wax which the perfumer

uses in delicate cosmetic pastes, but for such purpose it must be perfectly pure, tasteless, and free from spermaceti or stearic acid, with which it is sometimes adulterated. To be good, it must be firm, dry, brittle, and free from greasy tastes when chewed.

The yellow wax is also useful to the perfumer.

CHAPTER VI.

OF POMADES.

THE manufacture of pomades consists of two operations; first, the preparation of the fats or *body;* and secondly, the mode of perfuming it.

THE BODY OF THE POMADES.—First of all the desired species of body must be determined upon. It is requisite, too, to have regard to the destination of the article, for if it is intended for a distance and a warm clime, then some additions are necessary. Attention, also, must be paid to the selection of suitable and appropriate perfumes, as also to the tints which should be imparted to pomades.

Great care is also necessary to remove all impurities from the lard or fat, and therefore it is safer to remelt it, and after keeping it at water-bath heat for several hours, to strain it, while hot, through thick flannel. This treatment expels all water, coagulates the albumen, and separates it, as well as the suspended matters, from the fat.

The fat, as rendered in "steam-tanks," at the West, contains water, holding in solution animal matters, and is therefore liable to become acid and rancid. The superiority and inalterability of the French pomades is due to the eminent purity of the fat and of the perfume. Essences should never be used for aromatizing, as they are liable to be impure. The perfume should be obtained directly from the flowers, &c.

Pomade body of Lard.—Mince the rough fat, rub it up in a large marble mortar, and repeatedly wash with water until it ceases to impart a color thereto, drain and melt at a mild heat in a very clear vessel, adding to every 50 or 60 pounds two ounces of alum and a handful of very white salt. Boil until it froths freely, and remove the scum as it arises. When it is entirely liquefied, strain through a very fine hair or iron-wire sieve, without pressure, reserving the cracklings from which to prepare a pomade body of inferior quality. Leave the melted grease at rest for an hour or more, so that it may settle, and then carefully decant it from the water and sediment. To effect a greater degree of purification, the fat must be rendered over a water-bath. Formerly, two or three quarts of rose-water were added, but this renders the

pomade humid and liable to become altered. The process is terminated by decanting anew the melted fat from any sediment that may have remained.

If this mass is intended for pomades which are to go a great distance and to a warm climate, then it is requisite to add a fourth or even half of beef tallow, in order to increase its consistence. If the article is destined for a southern market, it is even well that the *body* should contain two or three ounces of wax to every pound.

The fats purified as above directed, though of perfect whiteness, are, unluckily, after a time, liable to putrefaction. The particles of water retained therein, despite the great care in effecting its separation, are the cause of this rapid and inevitable alteration. To counteract this, some perfumers beat up their melted fat so as to introduce a quantity of air, in order to render it lighter and whiter, but in this way they risk a decomposition of the fat. To obviate both inconveniences, the following mode can be adopted: Bruise the grease without addition of water, until all the membranes are completely separated; throw the mass into a kettle heated by a water-bath—the fat soon melts, and the albumen of the blood, in coagulating, removes all the foreign matters. Take care,

and skim from time to time, and afterwards strain through flannel. The pomade body, made in this way, endures well, and requires a lesser quantity of tallow and wax to improve its consistency.

Pomade body of Tallow.—This is commonly called *hard body*, and is made by melting together purified beef suet and lard body, over a water-bath, or, as well, equal parts of tallow and beef's marrow, or bear's grease. When pure, it is substituted for beef's marrow (*moelle de bœuf*), under the name of which it is frequently sold. In winter, however, it is necessary to have an admixture of three-fourths lard, or a half of white oil, and for this purpose the inferiorly perfumed oils can be used. Beef suet, in other respects, is purified as is hog fat.

Pomade body of Mutton Suet.—This is not employed alone, but combined with lard; the union, however, must be effected in a particular manner, that is, the mutton suet, without being heated, is mixed in with the lard, prepared in the usual manner. This suet is applicable to the ordinary pomades, or those in stick; but for these latter there is no addition of other fat required.

As it is often important to prepare pomade of great whiteness, the success is sure and easy, if to

every four pounds of melted grease is added the juice of a lemon, or some particles of tartaric acid, and the whole well beat up with a whip of osiers, similar to those used for whipping the creams.

Pomade body of Beef Marrow.—Perfumers make but little more of this article than the name, a fraud at the same time in opposition to good faith and even, properly considered, against their own interest. For twelve pounds of pomade, mix together two pounds of beef-suet body, and six pounds of lard body. Again, weigh of beef marrow, purified as are the other fats, four pounds, and add to the eight pounds previously mixed. If thought proper, during summer, a part of wax can be added. For winter use, the compound should consist of three-fourths of lard body and one-fourth of beef marrow, or half and half of marrow and white oil, without the addition of a firm body.

Pomade body of Bear's Grease.—There is more dishonesty practised in the pomades from this article than in any other, and why we know not, for the quantity of bear's grease consigned to the cities from the West is more than sufficient to supply the demand, and can be had at a price reasonable enough to afford an extravagant profit upon the

fabrics into which it is converted. The deception in this pomade has created a want of confidence among purchasers as to other products, which is only to be done away with by a uniformly honest integrity on the part of the manufacturer. To four pounds of bear's grease add two pounds of beef marrow; in default of the marrow, take tallow, melt them together, purify as before directed, and perfume with six ounces of pure essence of lavender, and some drops of essence of thyme.

Body of yellow pomades.—The common usage, for some time, has been to employ the pomade of beef marrow, to which has been imparted a yellow shade by admixture with a very highly-colored body. The proportion generally is one ounce to a pound of the pomade, so regulated as to give the beautiful color of fresh butter.

To make the deep-yellow body, take six pounds of prepared tallow, melt it over a water-bath, with one pound of annotto, and stir well to insure a perfect incorporation; after an hour, pass into a strong bag, and express as much as possible. What remains in the cloth, when mixed anew with a fresh quantity of fat, yields a color almost as deep as at first. Perfume this body with one ounce of essence of bergamot to every pound.

Unity of green pomades.—Take of purified pomade lardy, or good pomade à la rose, or orange flower, a sufficient quantity, melt over a water-bath, and infuse therein, for thirty minutes, some bruised walnut leaves, freshly culled, stirring frequently; and, at the end of that time, express the whole through a cloth. To obtain greater depth of color, this process is repeated with fresh leaves, care being taken this time, after expressing the liquid, to allow it to settle, so that the perfectly clear portion may be decanted. This is also used for imparting color to bear's grease, in default of walnut leaves. Perfume with one-half ounce of essence to every pound of pomade.

CHAPTER VII.

OF POMADES PREPARED BY INFUSION.

THESE pomades, the most simple of all, are obtained by infusing the flowers or odorous substances which are to impart the perfume, for a certain length of time, in melted pomade body.

Pommade à l'acacia or la cassie.—Take 334 lbs. of lard body, and 166 lbs. hard body (more or less, according to the climate and place of destination). Put these 500 lbs. of grease into a water-bath, and, when it is heated and melted, throw in 150 lbs. of acacia leaves (*acacia farnesiana*). Cover the vessel; stir the infusion hourly, for a day, so that the flowers may be thoroughly intermixed. At the end of this time remelt the pomade, and stir continually to prevent the adhesion of any of the flowers to the bottom of the vessel. Hold it in fusion for another day, during which stir frequently, then let it cool a little, and press tightly through canvas, so that the marc remaining in the cloth may be perfectly exhausted and valueless. This first operation is again

repeated, and gone through with as before, ten times consecutively, with fresh flowers. After the last infusion, take care to settle the pomade until perfectly clear above; then it is ready to be decanted into pots. The sediment can be put up as an inferior article.

Pommade à la rose.—This is prepared similarly to the above. Mix 1 lb. of dry but fresh rose leaves with a pound of pomade body, composed either half and half of hard body and lard body, or else one part marrow and three parts lard body. These bodies, melted together over a water-bath, are to be heated with the flowers, twelve fresh additions of which are to be added as many consecutive times, if a superior article is desired.

Pommade à la fleur d'oranger, fine and extra superfine.—Weigh out a half pound of orange flowers, half a pound of pomade body, and infuse as above directed for the preceding pomades. If an article of ordinary quality is wanted, take a body such as was advised for the acacia pomade, but if a superiorly excellent fabric is desired, the following directions must strictly be observed.

First: for the body, mix two-thirds of lard body, purified by lemon juice (*vide* p. 88), with one-third white wax. Secondly: separate the orange flower

from the leaves and stems, so as to infuse only the petals, carefully rejecting all the yellow parts of the flower. Such a pomade is of an incomparable fragrance and brilliant whiteness, but, as its cost is great, it answers only to manufacture it to order.

Although the orange-flower pomade is made as the preceding, yet it requires but eight infusions. Be careful, however, in each pressing, for this pomade is liable to form a deposit. This precaution is necessary to insure a clear racking off or decanting, after the pomade has been allowed to repose some time. The lower stratum is put up as an inferior article, or saved for use in compound pomades.

The marc should be preserved for the preparation of those pomades to which some additional odor is to be added.

Pommade à la vanille.—Melt over a water-bath 12 lbs. of purified pomade body, add thereto 12 oz. of finely-divided vanilla, and infuse therein for two weeks, taking care to stir up thoroughly from time to time. After this interval, remelt, and leave the infusion for ten days longer, then melt again, and finish as with the other pomades.

The marc can be used even more advantageously than that of the orange flower.

CHAPTER VIII.

OF POMADES PREPARED WITHOUT INFUSION.

To impart to the grease the more delicate perfumes of certain flowers, it is necessary to have recourse to the process of *enfleurage;* that is, to imbed the flowers in pomade body, spread upon glasses and frames.

Pommade à la tubéreuse.—This flower could probably be infused, but as its high price restricts its employment to small quantities, it is *enflowered*, and confirmed in odor with some drops of essence of amber and of vanilla.

When the melted body, composed of prepared lard and tallow, has congealed, it is to be spread with a spatula upon the cover of a *frame* to the depth of two lines. Furrows are then traced diagonal to, and three lines apart from each other, so as to form quadrangular squares. This mode has the advantage of regulating the position of the flowers, and facilitating the absorption of their perfume by the pomade. This done, detach the

flowers from the stem of the tuberose, and, after having divided them into two or more parts, according to their size, sow them in each square. The small flowers, as the jasmine, hyacinth, and violet, can be used whole.

The *frames*, thus freighted, are placed one above the other and left until next day; then the imbedded flowers are carefully removed with nippers, care being taken not to break them or soil the pomade, because it cannot be remelted and decanted anew. Nevertheless, there are some perfumers who, after having melted it to separate any remaining flowers, strain through a linen cloth; but this process is injurious to the quality, and impairs the delicacy of the perfume, and consequently should be provided against.

The first flowers being removed, are renewed by fresh ones which remain in for two days, and so the enfleurage is repeated in the same manner as before, for six or more consecutive times. Certain flowers require an enfleurage continued for several months. The proper degree of fragrance being obtained, the pomade is removed with a spatula and put into pots.

Pommade au jasmin.—Perfume 10 lbs. of well-purified body with 4 oz. of benzoin, melt and de-

cant carefully, let cool, and spread the pomade for enfleurage. Some perfumers prefer omitting the benzoin, and retaining only the odor of the jasmine. This is all well enough, but then the pomade is necessarily costly, requires a longer time for its preparation, and a greater proportion of flowers, which are difficult to be had in quantity. Finish the process as has been before directed.

Pommade à la jonquille.—The addition of two drachms of essence of musk to twelve pounds of this pomade, is a matter left to the discretion of the manufacturer. It is better, nevertheless, to prepare at the same time both the pomade *à la jonquille* pure, and that *à la jonquille musquée*, for many consumers prefer the former. Operate otherwise as has been before directed.

Pommade au lilas.—As for this pomade, it is necessary to have recourse to some perfume of more diffusive fragrance than that of the lilac, which is weak and deficient. Commence, then, by taking six pounds of selected body, melting and adding thereto eight ounces of storax, and four ounces pulverized benzoin. Infuse these ingredients three days, stirring from time to time; then remelt and add two pounds pure hyacinth pomade, the odor of which is similar to that of lilac. The whole, after

being melted, reposed, and drawn off clear, is, when cool, spread upon the frames, and enflowered with fragrant, well-blown, and dry lilac flowers. As the lilacs are more advantageous when dry, it is best to separate the flowers from the stalks, and expose them, previously, to the sun, or the heat of a drying-room.

Pommade à la jacinthe.—Proceed as for the pomade *à la tubéreuse;* but renew the enfleurage eight or ten times, and even longer, for a highly-scented pomade. It will be well to color red or blue; of the first shade with a little carmine, and of the second with an infinitely small quantity of ultramarine. The coloring should be added when the pomade body is slightly cooled, and the enflowering commenced immediately afterwards, with fresh hyacinth.

Pommade au narcisse.—This pomade is very pleasing when white, pure, and solely perfumed with the mild odor of the flower which gives it its title. Select a purified lard body, to which is added a part of white wax, and, when cool, enflower with handsome daffodils, deprived of their bright-yellow coronas. After a manipulation similar to that with hyacinths, continue with some jonquils, if the perfume is not energetic enough.

Pommade à la violette.—To a selected and melted pomade body, add one part of powdered orris, the odor of which resembles that of violets. After carefully decanting, color with a very small portion of a mixture of indigo, and decoction of Brazil wood. The congealed body is then enflowered with the same precaution and directions as given for the *pommade au lilas.*

Pommade au réséda.—Select that mignonette which has large and very green leaves, and is in long and thick clusters, and expose it to the air for some minutes after having gathered it, and then break the bunches into several pieces. Spread out the pomade body as before, and carefully enflower, so as not to crush the little flowerets which form the mignonette. Have the same care when removing the flowers, and use a pair of pincers, for it is very important that no particles of *réséda* shall remain upon the pomade; for, if remelting has to be resorted to, the delicate fragrance of this flower is necessarily impaired. If it is desired to make it more pungent, add orris, as has been directed for the *pommade à la violette*, and, finally, when cold, some drops of rhodium oil.

Pommade au seringat.—Take six pounds of body, and add thereto a pound of *pommade à la*

fleur d'oranger, as much *à l'acacia*, and as much *à la tubéreuse;* spread out this mixture, and enflower with dry but fresh syringa flowers, four or five times consecutively; then warm up the pomade, and heighten the perfume with some drops of good neroli.

Pommade à pois de senteur.—This new and delicate pomade is prepared with the deep-violet flowers of the fragrant chickvetch, which are richer in perfume than the red-colored. Infuse in the prepared pomade body, the marc of orange flowers for six days, press and add to the body, previously scented and still liquid, a part of *pommade à l'acacia.* Then enflower nine times, and heighten the odor; finally, if it is requisite, with some drops of essence of amber and of neroli. Color either red or bright violet.

Pommade au muguet (lily of the valley).—Mix 4 lbs. of lard body, 1 lb. *pommade à la rose*, 1 lb. *pommade au réséda*, and 4 oz. *pommade à l'acacia.* Enflower carefully with lilies, and afterwards warm the pomade, and add two drops essence of rhodium.

Pommade à l'héliotrope.—Melt 8 lbs. pomade body, and mix therewith 1 lb. *pommade à la rose*, and 2 lbs. *pommade au jasmin.* Enflower three or four times, at intervals of four days. The rarity

of the heliotrope, and its retentiveness of perfume, explain the necessity of this prolonged process. Then mix together 2 oz. balsam of Peru, 1 oz. essence of vanilla, 1 drachm essence of amber, and, after having enflowered the pomade for the last time, add them dropwise to the surface thereof. Some perfumers warm the pomade over a water-bath, to effect the more thorough incorporation of the added perfumes, but then they give to it a brown tint, by the addition of 2 oz. of brown vanilla powder (*vide* POWDERS). The skilful manufacturer does not, however, follow this example, because it disguises the mild and delicate fragrance of the heliotrope, as well as the beautiful natural color of the pomade.

Pommade aux fleurs d'Italie.—Spread out 8 lbs. of prepared body, and enflower with hyacinths, and after five courses of this flower, repeat the operation with jonquilles the same number of times; repeat with lilac, and then with muguet. Melt and strain the pomade; this being done, add thereto—

Pomade	*à la fleur d'oranger*	1 lb.
"	*au jasmin*	1 lb.
"	*à la tubéreuse*	8 oz.
"	*au réséda*	8 oz.
"	*à la rose*	8 oz.

This mixture, half cooled, is then perfumed with—

Ess. amber	1 oz.
" musk	½ oz.
" bergamot	4 drachms.
Essential oil of cloves	1 drachm.

CHAPTER IX.

OF COMPOUND POMADES.

THESE pomades, of which that last described gives an idea, are ingenious, often complicated mixtures of various pomades. They are intended to represent the perfumes of flowers, and consequently, to do away with the tedious and expensive process of enfleurage. In preparing them, the design should be to form, by the union of several different perfumes, one special odor, embodying many, and such as the fragrant scent of the pomades *au bouquet, au pot-pourri, à la sultane,* &c. The object of these compounds, furthermore, is to mitigate the energy of certain odors, as the musk, vanilla, benzoin, and the like.

Pommade à la jonquille, composée.

Pomade	*à la fleur d'oranger*	2 lbs.
"	*à la tubéreuse*	2 lbs.
"	*à l'acacia*	1 lb.
"	*au jasmin*	3 lbs.

To these, melted and mixed together, add of es-

sence of amber, musk, and balsam Peru, each two drachms, and of essence of styrax four drachms, and impart a slight yellow tint with a very small quantity of turmeric or saffron.

Pommade à la jacinthe, composée.

Pomade	*à la fleur d'oranger*	1 lb.
"	*à la tubéreuse*	2 lbs.
"	*au seringat*	1 lb.
"	*à l'ambre*	½ lb.
"	*au réséda*	½ lb.

Mix and melt the whole together, and perfume with four drachms essence of rose.

Pommade à la violette, composée.—Infuse, for some days, one pound of powdered orris in four pounds of purified pomade body; stir frequently, melt, strain, and add

Pomade	*à l'acacia*	6 lbs.
"	*au jasmin*	1½ lbs.
"	*au réséda*	1½ lbs.

Perfume with some drops of essence of ambrette.

Pommade au seringat, composée.

Pomade *à la fleur d'oranger,*
" *au réséda,*
" *à la jonquille,*
" *à la tubéreuse.*

Perfume with essence of amber and musk, each

two drachms, and with three drops essence of neroli.

Pommade au muguet, composée.—Melt together

Pomade	*à la rose*	2 lbs.
"	*au réséda*	2 lbs.
"	*au pois de senteur*	½ lb.
"	*au jasmin*	½ lb.

Perfume with some drops of essences of amber, musk, and rhodium.

Pommade à l'héliotrope, composée.—Mix together, over a water-bath,

Pomade	*à la rose*	1 lb.
"	*à la vanille*	3 lbs.

and when they are melted, add

Pomade	*au jasmin*, or *à l'acacia*	2 lbs.
"	*à la tubéreuse*	1 lb.

Keep these last pomades as little exposed to the fire as possible, and remove therefrom, as soon as melted. Perfume, by adding to the half-cooled pomade

Essence of vanilla	1 oz.
" of Mecca balsam	1 oz.
Essential oil of cloves	½ drm.
Tincture of amber and musk each	½ drm.

Pommade à l'œillet, composée.—This and the preceding pomade are rarely genuine, and such as

their titles represent; for, on the one hand, the heliotrope is too costly, and on the other, the clove is of odor so similar to that of the clove-gilly, that they are but seldom made with the flowers.

To 6 lbs. of body (selected with regard to the climate for which it is intended), add

Pomade *à l'acacia* or *fleur d'oranger*	4 lbs.
" *au jasmin* or *jonquille*	2 lbs.
Powder *de girofle brune*	4 oz.

The whole being mixed together and ready, is perfumed with

Essential oil of cloves	2 oz.
Essence of bergamot	1½ oz.

Pommade aux fleurs d'Italie, composée.—As the genuine pomade could only be prepared from the natural flowers, during the spring, and then only with great care, nearly all the perfumers substitute the following composition:—

Pomade *à la fleur d'oranger*	2 lbs.
" *à l'acacia*	1 lb.
" *au jasmin*	2 lbs.
" *à la tubéreuse* or *à l'oranger*	1 lb.
" *à la jacinthe* or *au lilas*	1 lb.
" *au réséda*	½ lb.
" *à la rose*	½ lb.
" *à la jonquille*	1 lb.

Mix, melt together, and perfume with

Essence of amber	6 drms.
" of musk	2 drms.
" of bergamot	3 drms.
" of clove	1 drm.

Before having perfumed it, color with 3 oz. of pulverized bergamot peel, and 1 oz. brown powder *à la vanille.*

Pommade au bouquet.—Melt together over a water-bath 3 lbs. good pomade *à la rose*, 2 lbs. *à la fleur d'oranger*, 1 lb. *à l'acacia*, 1 lb. *à la jacinthe* or *à la tubéreuse*, 8 oz. *au réséda*, 8 oz. *à la jonquille*, 1 lb. *à la vanille;* add thereto 3 lbs. pomade *au jasmin*, and when the whole becomes semi-congealed, perfume with 2 oz. essence of bergamot, 4 drs. essential oil of cloves, two or three drops of essence of thyme, and two drachms of essence of amber and musk.

Pommade au pot-pourri.—Melt 4 lbs. prepared body, and then add thereto 2 lbs. pomade *à la fleur d'oranger*, 2 lbs. *à l'acacia*, 1 lb. *à la rose*, 1 lb. *au réséda*, and 2 lbs. *au jasmin.* Perfume with 3 oz. essence of bergamot, 4 drachms essential oil of cloves, some drops of the essences of thyme, neroli, lavender, fennel, fenugrec, and of tincture of musk, amber, and vanilla. Color with one or two ounces of brown powder *à l'œillet.*

Pommade de mille-fleurs.—This pomade differs very little from that of *au bouquet*, and can be similarly prepared. The perfume, however, is 1 drachm essence of Portugal, 1 drachm essence of fennel, and ½ drachm essence of lavender; and the color of the shade is also varied.

Pommade à la duchesse.—Take 4 lbs. of prepared body, and when it is melted add 4 lbs. of pomade *à la fleur d'oranger*, 3 lbs. *au jasmin*, 1 lb. *à la rose*. When the whole becomes semi-congealed, perfume with 4 oz. essence of bergamot, 1 drachm essence of thyme, and 1 drachm essences of amber and musk.

Pommade à la frangipane.—Take 4 lbs. prepared body, and when melted add 2 lbs. pomade *à la fleur d'oranger*, 1 lb. *à l'acacia*, 1 lb. *à la rose*, 4 lbs. *au jasmin*. The whole having semi-congealed, is perfumed with a mixture of 2 oz. essence of bergamot, 4 drachms essence of cloves, 1½ oz. balsam of Peru, 1 oz. essence of vanilla, and 4 drachms essences of amber and musk, and thoroughly stirred. Before adding the essences, the color is given to it of any shade that may be desired. Its usual tint, however, is a reddish-yellow, communicated by a composition of 1 oz. pulverized bergamot peel, and ½ oz. red powder

à la maréchale. In this, as in similar instances, always be careful to thoroughly stir in and incorporate the pulverulent coloring matter, so as to provide against its deposition.

Pommade à la sultane.—Melt 4 lbs. of prepared body, and add in 1 lb. of pomade *à la rose*, 1 lb. *à l'héliotrope* or *à la vanille*, 1 lb. *à la tubéreuse*, 1 lb. *à la jonquille*, and 4 lbs. *au jasmin*. When the mixture has half-cooled, perfume it with 4 drachms essence of amber, 4 drachms essence of musk, and 4 drachms essence of vanilla.

Pommade à la maréchale.—Observe the same process for this as for the pomade *à la frangipane;* except as to the perfume, which must consist of 1 oz. essence of bergamot, 4 oz. essence of cloves, 1 oz. balsam of Peru, ½ drachm essence of sassafras, ½ drachm essence of cinnamon, ½ drachm essence of rhodium, a drop of essential oil of anise, and 4 drachms essence of amber and of musk. Impart a color with 1 ounce of powder *à la vanille*, and ½ oz. of pulverized bergamot peel.

Pommade de chypre.—Proceed in the preparation of this as in that of the preceding pomade, but double the quantity of essence of amber or musk. Before being perfumed, it is to be incorporated thoroughly with two ounces of powder *de chypre.*

CHAPTER X.

OF ROMAN POMADES.

This species of pomatum, midway between the pomades and antique oils, is easily prepared. Take one part of lard body, scented as desired, and thin it with three or four parts of a perfumed oil, according to the temperature.

The Roman pomade is, in summer, substituted for the antique oils, which then are liable to rancidity; but in winter it is less used, as the oils are more agreeable and convenient. Nevertheless, as there are many who at all times prefer the pomades, the manufacturer should prepare this kind, suitable to every season. But (and this remark refers to all the pomades), it does not answer to perfume with jasmine and tuberose from June to November, for, during that interval, the temperature is prejudicial to pomades of these odors.

All the pomades which have been described, are made to partake of the nature of Roman pomades, by the addition of a perfumed oil; and so, also, the

pommades romaines, which are now to be treated of, become common pomades by the omission of oil.

Pommade romaine à la bergamote.—Melt up of purified lard and hard body 6 lbs., add thereto 4 lbs. of pomade *à la fleur d'oranger*, and whilst still liquid, mix in of oil *à la bergamote* 2½ lbs., and then perfume with essence of bergamot 8 oz., essence of limette 3 drops. Give to this pomade a lemon color, with a very small quantity of the juice of marigold flowers.

Pommade romaine à la vanille.

Pomade *à la rose*	12 lbs.
Oil *à la rose*	3 lbs.
Pulverized vanilla (best quality)	1 lb.
Bergamot	6 oz.

Melt the pomade over a water-bath, then throw in the vanilla, and stir well for an hour. After six hours' repose (this time serves for the deposition of all of the vanilla) decant carefully. The pomade thus made preserves its yellow color.

Pommade romaine à l'ambre.—Bruise 1 oz. fine ambergris, in a cast-iron mortar, with a heated pestle, and as soon as it is fine enough, rub in a ½ ounce of Tonquin musk. To 6 lbs. of melted body add this mixture, and allow it to infuse therein for ten days; then decant the settled grease carefully,

and incorporate it with one or two pounds of *oil d'ambrette.* If the odor of the pomade is to be very strong, 2 oz. of essence of amber must be added.

Pommade romaine au benzoin.—This popular pomade sells well, keeps well, and gives but little trouble in its preparation. Pulverize ½ lb. of storax, 1 lb. of benzoin, and a small quantity of civet, and infuse this mixture for ten days in 8 lbs. of lard body. Stir well and frequently during each day, and when the pomade is sufficiently charged with fragrance, remelt and strain it, and thin out with 2 or 2½ lbs. of antique oil *au benzoin.* Any other addition of perfume will be superfluous or injurious.

Pommade romaine au musc.—Rub up 1 oz. of musk, and ½ oz. of amber, thin out with oil *musquée,* and do otherwise as directed for the pomade *à l'ambre.*

This pomade is one of the most costly. Many persons dislike it, but there are others again who do not; and besides, it keeps well, and is adapted to distant transportation, and is also a component of many compound pomatums.

CHAPTER XI.

OF DIVERS POMADES.

UNDER this head are embraced all the fancy pomatums; the pomades *à la mœlle de bœuf* (beef marrow), *à la graisse d'ours* (bear's grease), and such others as have been patented, for the preservation of the hair. To the *cosmetic* pomades, a separate chapter is specially appropriated.

Pommade impériale.—Take 4 lbs. compound pomade *au jasmin*, 1 lb. P. *à la fleur d'oranger*, 8 oz. P. *à l'acacia*, 8 oz. P. *à la jonquille*, 8 oz. P. *à la jacinthe*, 8 oz. P. *au lilas*, 8 oz. P. *au réséda*, and 8 oz. P. *à la tubéreuse;* melt them together over a water-bath, reserving those *au lilas* and *au jasmin* to the last, and subjecting them to as little heat as possible. When half cooled, perfume with 1 oz. ess. of bergamot, 1 oz. ess. of vanilla, 1 drm. tincture of fenugrec, 2 drms. ess. of ambre, and 2 drms. ess. of musk. To give a green color to this pomade, add, of green pomade body, a sufficient quantity to impart the desired shade.

Pommade de flore.—Melt over a water-bath 1 lb. pomade *à la rose*, 8 oz. *à la fleur d'oranger*, 8 oz. *à la jonquille*, 8 oz. *au lilas*, 8 oz. *à la jacinthe*, 8 oz. *à la violette*, 4 oz. *à l'acacia*, 2½ lbs. *au jasmin*, and as soon as liquid remove from the fire, and when cool, perfume with 2 drms. tinct. amber, 2 drms. tinct. musk, ½ drm. esstl. oil of cloves. Give this pomatum a delicate rose-colored tint, with alkanet or a little carmine, by triturating the necessary quantity with a portion of the pomade, and then rubbing that portion in with the whole. This pomade, mild and fragrant in odor, is one of the most agreeable.

Pommade de mœlle de bœuf à l'ambroisie.—Take 8 lbs. of beef-marrow body, melt over a water-bath, and add in

Pomade	*au seringat*	1 lb.
"	*au musc*	8 oz.
"	*à la rose*	1 lb.
"	*au benzoin*	½ lb.

Perfume with ess. of lavender 2 oz. and ess. of jasmine and Portugal, each 1 oz.

Pommade de mœlle de bœuf au baume de la Mecque.—Infuse 6 lbs. of beef marrow and 2 lbs. of lard body, with 1 lb. of storax and ½ lb. pulvd. benzoin, in the usual manner; and then add ½ lb.

of Mecca balsam. Perfume with 4 drms. spirit of ambrette.

The beef marrow pomades can be prepared of all the odors before mentioned.

Mœlle de bœuf odorante.—As many persons prefer using the beef marrow without admixture of other fat, it should first be melted, clarified, and perfumed, either with essence of lavender, cinnamon, lemon, or other fragrant extract.

Pommade à la graisse d'ours, aux feuilles de noyer.—Melt over a water-bath 6 lbs. of bear's grease, and infuse therein some fresh and well-bruised walnut leaves. After two days, remelt, strain, and renew the infusion with new flowers. After this, perfume with 6 ounces essence of thyme, and some drops of essence of bergamot. This pomade should be of a green shade.

Pommade canadienne (genuine bear's grease). Melt 4 lbs. of purified bear's grease, and infuse therein 8 lbs. rose leaves, as is directed for the pomade *à la rose;* strain and perfume with ½ oz. essence of mint, 1 oz. essence *à la rose*, and some drops of essence of vanilla. To give a delicate rose tint, add a little carmine.

Pommade de Tobolska.—Melt 1 lb. hard body, 1 lb. mutton-suet body, 2 lbs. purified bear's grease;

add thereto 6 oz. of fine white salt, and stir constantly while cooling, so as to incorporate it thoroughly. Perfume with 6 oz. parsley seed, 1 oz. anise seed, and 1 oz. fennel seed, all finely powdered; and when the whole is thoroughly mixed, pour in 2 oz. essence of limette or anise.

Pommade en bâtons (Stick pomatum). — The stick pomatum is generally composed of mutton suet, but it is also made of the hard body, to the pound of which, in summer time, must be added 1 oz. of wax. The lard body can also be used, but then the proportion of wax should be increased, for it is requisite that the pomade in stick should be of firm consistence. Always melt the least fusible body first.

Whatever body may be selected, take care in moulding it, not to run it in the forms too hot, else cavities will occur in the centre, thus rendering the sticks liable to break. Any and every perfume can be used, but it is better for this species of pomade to employ only the choicest and more delicate. The usual odors are, bergamot, lavender, thyme, orange peel, &c., and the proportion, one drachm of the essence of any of them, to the pound of pomade.

Pommade du caméléon, de six couleurs.—This pomade, apparently so complicated, is of very sim-

ple and easy preparation. Into very clear white glass pots, first run a layer of pomade *à la vanille*, light chocolate in color; and when completely cold, run in upon that a layer of the same thickness of pomade *à la rose;* upon this again, when it is cold, a layer of pomade *à la jonquille*, tinted with the juice of the marigold. Make the fourth stratum of pomade *au pois de senteur*, of violet color, and finish with a snow-white deposit of pomade *à la fleur d'oranger*, or one of pomade *au noyer*, perfumed with musk, and presenting a beautiful green shade.

This pomade is in good taste, and very elegant. The labels should be ornamented with a bouquet, composed of the six flowers, designating the species of pomade.

This receipt, though carefully made up, is merely an example, which can be varied so as to make the Chameleon pomade of twenty different appearances. For instance, here are two variations:—

1st deviation.

1st	layer,	*Pommade*	*d'ambre*,	light gray.
2d	"	"	*à l'héliotrope*,	lilac.
3d	"	"	*au muguet*,	white.
4th	"	"	*à la jacinthe*,	blue.
5th	"	"	*au musc*,	pale red.
6th	"	"	*de chypre*,	red.

2d deviation.

1st layer, *Pommade à l'œillet*, scarlet.
2d " " *à la bergamote*, lemon.
3d " " *au réséda*, green.
4th " " *à la tubéreuse*, flesh color.
5th " " *à l'orange*, yellow.
6th " " *à la violette*, violet.

Pommade des Francs de Dissey et Pivert.—Take of carefully prepared beef marrow 30 oz.; oil of noisette, 24 oz.; genuine bear's grease, 16 oz. Melt together over a water-bath, remove from the fire, and then add 32 oz. of good Cognac brandy, stirring continually; and when the mixture is well incorporated, and still liquid, perfume with essence of bergamot, 1 oz.; essence of rose and clove, each 4 drachms; essence of cinnamon and mace, each 2 drachms.

Put up in hermetically sealed vessels, appropriately labelled.

CHAPTER XII.

EXTRACTS OF POMADES.

THESE pomades are distinguished by the perfumers as *fine*, *superfine*, *extra fine*, *double*, *and double fine extracts*. The names indicate only the amount of care used in their preparation, and the number of infusions and *enfleurages*. The *extra fines* are obtained by a union of two processes: thus, for instance, to make the extract of *pommade à la rose thé*, proceed as follows:—

Extrait de pommade à la rose, ou à la rose musquée.—First select a body composed of very pure lard and white wax, and with 6 lbs. infuse 6 lbs. pale roses. The infusion being concluded according to rule, the pomade is then spread out upon frames and enflowered with fragrant tea roses. The product is a pomade which is veritably the extract of the perfume of the rose, and which sells at a much higher price than the ordinary pomades.

This example presents the mode of preparing

these extracts, the odors of which are always most delicate and *recherchés*.

Extrait de pommade romaine, à la giroflée, au jasmin, &c.—This is prepared like the preceding: 1st, by infusion; 2dly, by enflowering, thinning it down with oil, perfumed by the flower employed.

Pommade concrète à toutes odeurs.—This is a semi-liquid Roman pomade, made of oil and fat in equal proportions. It is put up in glass bottles, having been previously perfumed and colored either red or lemon.

Pommade noire ou d'ébène de toutes odeurs (for blackening the hair).—Melt over a water-bath,

Virgin wax	4 oz.
Imperial pomade	12 oz.

and add two ounces of finely-powdered ivory black. Mix the whole thoroughly, and strain.

Pommade noire en bâtons (for the eyebrows and moustaches).—Prepare this pomade in the usual way, using a third of wax instead of a fourth, in winter, and the half in summer. When it is cool enough, mould it in forms, envelop in tin foil, and label for market.

Pommade brune et châtaine en bâtons.—Proceed as has been before directed, using, in this instance, powdered umber instead of ivory black.

Pommade collante (for wigs and false curls).—Take 1½ lb. of best Burgundy pitch, 8 oz. virgin wax, melt them together in a stoneware vessel, and add 1 oz. of liquid pomade. Remove from the bath, and, whilst yet liquid and warm, stir in seven fluid ounces of alcohol; when the spirit has been well incorporated, replace the vessel upon the sand-bath, and heat up to a slight boiling; then strain through a linen cloth, perfume with 2 oz. ess. bergamot, and, when cold enough, run into moulds.

To remove readily from the moulds, turn them before the fire, and the contents soon detach and fall out. Whilst handling these sticks, the hands should be powdered. They are generally from 1 to 3 oz. weight.

Eau collante.—Infuse in a quart of river water, or rose water, ½ lb. gum Arabic, and digest for some days, stirring from time to time. When the gum is entirely dissolved, filter through brown paper.

Pommade à la citronelle.—This is easily made. Take the peels of several ripe lemons, cut into small pieces, dry and pulverize them in a mortar, pass the powder through a very fine sieve, and add it to the grease; when this is melted, perfume with a *q. s.* of essence of lemon.

Common pomades.—These pomades, put up in large jars, are either white, lemon colour, or yellow, *à la bergamote.* They are prepared from a mutton-suet body, and perfumed according to the rules laid down for the *yellow body.* These are sold by the pound, to small dealers, who retail them out by the ounce.

CHAPTER XIII.

OF THE OILS OF NUTS; ALMONDS.

It will seem to the reader that the proper head under which the oil of almonds should be treated, is that of the almond paste (*pâtes d'amandes*); but as this and similar oils are, as it were, raw materials in the preparation of perfumed oils, or oils *aux fleurs*, it has been concluded to give them a place in this chapter.

These last oils differ entirely from the essential oils, in not being prepared by distillation. They are the oils of sweet and bitter almonds, filberts, ben, and more particularly olive oil, charged with the fragrance of flowers in the same manner as that employed for perfuming the pomades.

OILS OF ALMONDS BY EXPRESSION.

Oil of Sweet Almonds.—Select those almonds which are sound, fresh, and not worm-eaten, rejecting all such as are rancid, and, after the careful separation of all foreign matters, introduce them

into a bag, and shake up well and frequently, to detach the fine yellow dust adhering to the cuticle. This done, they are taken out, sifted to remove this dust, and reduced to a paste in a mill. With this paste fill up canvas squares or bags, and submit them to a gradual, but strong pressure, between *slightly* heated plates, for experience proves that if they are too hot the oil is liable to rancidity. The oil thus obtained must be filtered and carefully preserved from contact of air, for on the filter is deposited a part of its mucilage. Fontinelle is said to have obtained it free from mucilage, and capable of being preserved for a longer time, by the use of three or four times its weight of water, holding in solution one twenty-fifth of white table salt. The oil of sweet almonds, well prepared from fruit which is not bitter, is of a bright yellow color, and has a slight and mild odor of the almonds, becomes easily rancid, and thickens. To obtain a handsomer and whiter product, first scald the almonds, and stir them about until their peels are detached, then drain them in a basket, douse them with cold water, pick out the skins, dry the almonds, and proceed with them as before directed.

The oil is not the only product of value obtained by pressing the almonds, for the marc which re-

mains in the bags is useful in the preparation of almond paste, for whitening the hands. Three hundred pounds of almonds yield about 130 lbs. of oil.

There are three kinds of oil of nuts, and as many corresponding pastes.

1st. *Oil of Peach*, or *Apricot Kernels*, alone or mixed with oil of bitter almonds. *Pâte d'amande bise.* The kernels must not be heated.

2d. *Fine Oil of Sweet Almonds.—Pâte d'amande douce blanche.* Treat the almonds with boiling water.

3d. *Oil of Bitter Almonds.*—The peeled nut yields twenty per cent. of oil.—*Pâte d'amande amère blanche.* Use the same process as before directed for detaching the skins: unlike the oil of bitter almonds, that from the sweet almonds can be used with all the perfumes. The peculiar odor of the former is prejudicial to certain perfumes, for instance, jasmine, jonquil, tuberose, &c., but may be well employed with the essences of the rinds of fruits, such as bergamot, lemon, cedrat, Portugal, and others, and with all the aromatic essential oils.

Oil of Hazel-nuts, or *Filberts* (*huile d'avelines*, or *noisettes*).—This oil is prepared as is the oil of sweet almonds. Scald the filberts, drain them in

a basket, douse them with water, pick out the skins, and dry the nuts upon a frame of hair-cloth, made for the purpose. Stir them about from time to time, so as to facilitate their perfect desiccation. This oil keeps well, and is a good substitute for oil of ben, the high price of which often prevents its being used. *A pâte d'avelines* may also be prepared.

Oil of Ben.—This oil is perfectly insipid and inodorous, is remarkable for not becoming rancid by age, and is used for extracting the fragrancy of certain flowers, as jasmine, orange, &c. The Egyptian nut is preferable to that from India, and those should be selected which are oblong and covered with a whitish shell. The oil is obtained from the *Mohringa aptera*, by expression.

CHAPTER XIV.

THE MODE OF SIMULTANEOUSLY SCENTING THE OILS AND PASTES OF NUTS.

Oil à la fleur d'orange.—Take 8 lbs. of good peeled almonds ground into paste, and 1¼ lb. orange flowers. Have a tin box, or a wooden box lined, or even a stoneware vessel, so that it is not too wide, and place at the bottom thereof a layer of almonds, and a layer of flowers, and so on continue the succession until all the material has been thus stratified; this done, the box is closed up for two days, at the end of which the paste is taken out and passed through a fine hair sieve to separate the flowers. Renew this operation five or six times consecutively, observing the same arrangement, but using fresh flowers each time. After the last inlaying of the flowers and separation from the paste, put the mass in cloths or bags and submit it to a press. The oil which runs out is of an excellent perfume, and after some time of repose can be decanted clear.

The paste obtained in this way is equally strong in perfume. When it is dry, it can be powdered and mixed with other pastes, taking care to preserve it in stoneware vessels, well closed, so that its freshness and fragrance may be retained.

In this manner can be aromatized, simultaneously, the oil and paste of the several other kernels, and thus is effected an economy both of time and perfume.

Oil au jasmin.—This oil is obtained by the same process as the above, but as the jasmine is weaker in odor, and consequently in essential oil, than the orange flower, it is necessary to use 2 lbs. to every 8 lbs. of paste. In like manner, both tuberose and acacia can be worked.

CHAPTER XV.

OF THE OILS PERFUMED BY INFUSION.

THE rose, orange flower, acacia, syringa, and tuberose, may be infused in fresh oil liquefied by the heat of the water-bath, in the same manner precisely as in the pomades. Here is an example.

Oil à la rose de Provins.—Weigh out 1 pound of rose leaves to a pound of pure olive oil. First heat the oil over a water-bath, and infuse the flowers therein for a half hour or more; then remove from the fire, and after 24 hours, and continual stirring during that interval, separate the flowers by a sieve or canvas cloth, and expression. Place aside the pressed leaves, and prepare the oil, already once perfumed, for another similar operation, and six or seven consecutive ones in the same manner, but each repetition with fresh flowers. Finish by coloring with carmine if the oil is too pale, and put it up in assorted-size vials of diversified shapes and handsomely labelled.

CHAPTER XVI.

OF OIL PERFUMED BY ENFLEURAGE.

This mode requires the use of the purest and freshest olive oil.

After having cleansed the chest of frames (p. 32), the latter are spread over with dry white muslin in several folds. These preparations made, select those flowers which have been freshly gathered, are without moisture, and neither too little nor too full blown. Remove the stalks and calices, in a word all the green parts, and then commence the operation.

First. Take the cloths by their four corners, and after dipping them in the oil, press out lightly with the hands, and hitch them to the frames, or if perforated tin plates are provided, spread them thereon. This arranged, put on each cloth a thin stratum of flowers, placed so that the superior part or top of the petals, is next to, and touching the cloth, and the lower part projecting upwards. It is apparent that the perfume thus concentrated between the

corolla and the cloth, not being able to escape, naturally penetrates through, and is absorbed by the oil.

Leave this first layer of flowers for 24 hours, after which remove them carefully with a pair of pincers, and renew with fresh, doing exactly as before, and as often as is required to sufficiently charge the oil with perfume. The cloths are then taken out, folded up, and pressed until they are dry. The last part of the operation generally requires eight or nine days.

The jasmine, tuberose, jonquil, the Parmesan violet (in particular), the lily of the valley, gilliflower, and nearly all the delicate flowers, can be treated in like manner.

When it is desired to shorten the enfleurage, it may be done by an addition of the essential oil of the flower.

Oil à la clématite cultivée (Clematis).—This flower, abundant in autumn, and the odor of which assimilates to that of orange flower, can be operated upon in the manner aforesaid. If the operation, by any chance, should fail of success, a small part of neroli remedies the defect, and transforms the deficient oil into oil *à la fleur d'orange*.

Oil au chèvre a feuille.—Select the ripe and red honeysuckle, the flowers of which are sweet and abundant. To extract more readily, the cloths should be soaked in oil of ben, which insures the complete absorption of the perfume. This precaution is recommended because the perfumers neglect the honeysuckle, notwithstanding it is as fragrant as the heliotrope and mignonette, which they use daily, and is besides more abundant than the one, and more easily treated than the other.

Oil à l'aubépine (Hawthorn).—This flower is less confidently recommended, notwithstanding its pure and penetrating odor, for it soon becomes disagreeable when a little too concentrated. Nevertheless, by alternate strata of muguet, hyacinth, and hawthorn, a new and agreeable perfume can be obtained with little expense.

Oil au bouquet de flore.—For the preparation of this oil, the process is similar to that for the *pommade aux fleurs d'Italie.* The jonquil, hyacinth, lilac, and lily of the spring, and the rose, sweet-william, gilliflower, and mignonette of the summer, are equally applicable for the purpose.

CHAPTER XVII.

COMPOUND OILS.

Oil aux violettes de Parme, composée.—Mix together, and carefully clarify,

Oil *de noisette*, or pure oil	8 oz.
" *à l'acacia*	4 oz.
" *au jasmin*	4 oz.

Oil à l'œillet de ratafia, composée.—

Oil *d'amandes amères* (bitter almonds)	8 oz.
" *à la fleur d'orange*	4 oz.
" essential of cloves	4 oz.

Oil à l'héliotrope du Pérou, composée.—Infuse for five days, stirring frequently, 1 oz. balsam Peru in 1 lb. good oil of olives or sweet almonds. Decant and add, incorporating thoroughly with a spatula,

Oil *au jasmin*	2 oz.
" *à la rose*	1 oz.
" of bitter almonds (best)	1 oz.

To render more agreeable and stronger in odor, perfume with

Oil *à la vanille*	2 oz.
" *à l'ambre*, and *au musc*	1 oz.

Oil de mille-fleurs, or *de bouquet composée.*—To make about two pounds, mix together,

Oil *au jasmin*	8 oz.
" *à la rose*	8 oz.
" *à l'acacia*	4 oz.
" *à la fleur d'orange*	4 oz.
" *à la tubéreuse*	4 oz.
" *à la jonquille*	2 oz.
" *à la jacinthe*	2 oz.
" *à la vanille*	2 oz.
" essential of cloves	2 drms.

To render the odor more energetic, add

Oil *ambrée et musquée*	2 oz.

Oil au pot-pourri, composée.—This is the preceding oil, with the addition of 2 drachms essence of bergamot, and 3 drops essence of thyme.

CHAPTER XVIII.

OF OILS, PERFUMED WITH ESSENCES.

Oil à la bergamote, citron, or *cedrat.*—To 1 lb. pure oil add 2 oz. essence of bergamot. If the oil of sweet almonds is used, it requires 2½ oz. to the pound.

Operate similarly for the lemon and cedrat oils.

Oil de Portugal.—Take ½ oz. of essence of Portugal to the pound of oil.

Oil de petit grain, and *de neroli.*—Two to four drachms of either oil suffice to perfume a pound of pure olive oil.

Oil à la lavande or *à la marjolaine.*—Add 2 drachms essence of lavender or marjoram to every pound of oil. Settle for clarification, and, to render it still more transparent, filter the perfumed oil through brown paper.

Oils à la menthe, au thym, serpolet, &c.—Operate as has been before said. You can also prepare these oils by infusion, by leaving the flowers of mint, thyme, and wild thyme, in contact with oil for 15 or 20 days, in the proportion of 5 or 6 oz. to the pound. Finish by clarifying.

CHAPTER XIX.

OF OILS, PERFUMED WITH SPIRITS AND TINCTURES.

The oils perfumed with essences meet with favorable sale, and command a good market, but the greater cheapness of the oils scented with spirituous tinctures obtains for them a more ready and extensive demand. Oil can be perfumed even with tincture of benzoin, and thus can be used respectively, also, the tinctures of balsam Peru, musk, amber, civet, cinnamon, cloves, mace, vanilla, fenugrec, storax, orris, yellow sanders, &c. &c. Great care must, however, be observed to obtain the perfuming oils in a state of perfect purity, for as found in commerce they are very liable to be largely adulterated with spirits of turpentine and other baser liquids.

CHAPTER XX.

OF AMBROSIAL OILS.

These oils are made by infusion, and all in a similar manner.

Oil (*huile*) *à l'ambre*.—Bruise in a mortar 1 drachm black amber and 2 drachms ambergris incorporate with a few drops of oil of sweet almonds, and then add gradually a pound of the same oil; infuse the whole for twelve days, frequently stirring the mixture during the interval. When the oil is sufficiently perfumed, settle, decant, and filter it through brown paper.

Oil *au musc*.—Operate as before, substituting 2 drms. of musk for the amber. It is well to add ½ drm. of amber or benzoin.

Oil *à la civette*.—This oil is prepared as are the preceding. Take 1 drm. civet, 1 drm. amber, ½ drm. musk to each pound of oil.

Oil (*huile*) *à l'ambre et au musc*.—These two odors mingle very agreeably. Take 2 drms. of

amber and ½ drm. musk to every pound of oil. The manipulation is as before directed. By the addition of ½ lb. of oil to the marc of these four oils, the remaining odor is abstracted, and thus is obtained an antique oil of second quality.

CHAPTER XXI.

EXTRACTS OF ANTIQUE OILS.

It is to be regretted that the perfumers should have adopted this name of *extracts* for the greasy bodies about to be mentioned, when the title properly belongs to the odorous extracts treated of in the Chapter on Distilled Essences. Those only are *extracts*, the odors of which are literally drawn from the oils and pomades. It is useless, however, to attempt a correction of an established custom, and so, in conformity therewith, we will speak of those extracts of oils which, similar to the extracts of pomades, are prepared both by *enfleurage* and infusion. Here follow some examples.

Extrait d'huile aux fleurs de catalpa.—Take of the catalpa flowers when they are abundant (in August) and sweet, and enflower therewith an oil prepared *à l'acacia*, and but weakly scented. These two analogous perfumes harmonize perfectly.

Extrait d'huile à l'hémérocalle.—To obtain this, enflower the oil *à la fleur d'orange* with four layers

of day lilies. As this flower fades in a day, the operation should be prompt. This extract should be of a beautiful whiteness.

Extrait d'huile au jasmin—jonquille.—Take oil of ben, in which infuse, in the mode aforesaid, the flowers of jasmine. Enflower then with the fragrant flowers of the jasmine and jonquille. Color it of a light lemon tint.

Extrait d'huile à l'oreille d'ours, à la violette des bois, and other flowers. Operate similarly as for the above.

CHAPTER XXII.

OF OILS FOR THE PRESERVATION AND GROWTH OF THE HAIR.

Huile du phénix, or *baume nerval.*—Take of

Beef marrow, purified	4 oz.
Lard "	2 oz.
Concrete oil of mace	4 oz.
Oil of cloves, lavender, mint, rosemary, sage, and thyme, each	2 drms.
Balsam of Tolu	4 drms.
Camphor	1 drm.
Alcohol 36° Baumè	1 oz.

Place the alcohol in a glass matrass, and, by the heat of a water-bath, dissolve therein the balsam tolu; this done, add the camphor and essential oils. On the other hand, melt together the marrow, lard, oil of mace, and, as it congeals, add the alcoholic solution first made, and stir the whole well until it is entirely cooled.

Huile de graisse d'ours.—(Bear's Oil.)

Take of	bear's-grease body	8 oz.
"	beef-tallow body	2 oz.
"	oil of alder	1 drm.
"	" sage	1 drm.
"	benzoin	4 drms.
"	musk	½ drm.

Prepare this as directed for the preceding oils.

Huile philocome of AUBRIL.—This composition is made in the cold way. Thus, take equal parts of beef marrow, oil of noisettes, and oil of almonds, and the whole being well incorporated under a muller, is then perfumed with some drops of any essence, according to taste.

Huile des célèbres of M'ME. LAE NAQUET, à Paris.—This celebrated oil is thus composed. To a pound of superfine olive oil, add eight whole cloves and ½ oz. of cinnamon, cut into small pieces, and boil the whole for an hour, until it has lost a fourth of its bulk by evaporation. Supply this loss by the addition of ½ oz. [redacted] the cinnamon root and as much of red sanders. Infuse the whole for ten minutes, clarify and add ½ oz. of ess. Portugal. It is best to operate with stoneware vessels.

Huile angélique of M. BROUILLET.

Pure oil	6 lbs.
Angelica root	1 lb.
Inner bark of willow	8 oz.
" " acacia	8 oz.
Ceylon cinnamon	4 oz.
Gum Arabic	1 oz.

The properties of these substances are extracted by the modes before mentioned, for the extraction of odors.

Huile Comogené.—Mix equal parts of spirits of rosemary and oil, and add some drops of oil of nutmeg.

Fluide de Java, of MLLE. J. GLUXBERG.—This renowned cosmetic is composed of beef marrow, white wax, and olive oil, perfumed according to choice.

Huile de castor. By M. PIGEAU, Paris.—The inventor of this oil makes it by mixing together the following substances:—

Oil of Tonqua beans	4 oz.
" olives, pure	2 lbs. 8 oz.
" " in which has been infused 6 oz. of boxwood leaves	12 oz.
Olive oil in which has been infused 4 oz. rose leaves	8 oz.

Essential oil of cinnamon	54 grs.
" " sassafras	48 grs.
" " rosephire	18 grs.
" " orange flowers	45 grs.
" " bergamot	18 grs.
" " Portugal	9 grs.

Huile de macassar (macassar oil), of NAQUET.

Oil of ben	8 qts.
" noisettes	4 qts.
Alcohol	1 qt.
Ess. bergamot	3 oz.
Spirit of musk	3 oz.
" Portugal	2 oz.
Essence of roses	2 drms.

Mix and keep the whole over a water-bath for an hour in a well-closed vessel. Digest then in the same vessel for a week, stirring several times daily. Color with alkanet.

Huile de Macassar (macassar oil.)—Take

Oil of ben	8 qts.
" noisette	4 qts.
Alcohol	1 qt.
Essence bergamot	3 oz.
" rose	2 drms.
Spirit of musk	3 oz.
" Portugal	2 oz.

Mix and digest precisely in the same manner and for the same length of time as for the preceding. This oil, however, is preferable to Naquet's, from its property of keeping much longer. Color with alkanet.

The *pommade de macassar* can also be made in the same manner by substituting for the oils of ben and noisettes, the Roman pommades, perfumed *à la noisette, au ben*, and thinned out with the oil of those fruits.

Eau de M. CUVILLIER, Paris, for washing the hair.

Rum	⅛
Alcohol	⅛
Barley	⅛

Huile de M. WERDET, Paris.—Take glue, soften it in water and reduce it to a jelly, by a very mild heat, in olive oil, or oil of flaxseed or of hempseed; to this oil thus prepared, which holds a portion of the glue, add some madder or alkanet. The affinity of one of these last tinctoral substances produces a liquid which is No. 1.

The same substances aforesaid, united with an equal portion of solution of caoutchouc, in olive oil, forms the preparation No. 2.

No. 3 is a solution of sugar in olive oil.

These three oils thus prepared have the property of softening the hair and imparting a lustre. Besides also being preservative of the hair, it promotes its growth and prevents its falling out, and above all, keeps it entire, and without regard to wet, warm, or cold weather. *So says the inventor.*

Shampoo liquor.—This very fashionable liquid, now in such prevalent use for removing the dandruff from the hair, is made by mixing together

New England rum	3 quarts.
Bay rum	1 quart.
Water	1 pint.
Glycerin	2 oz.
Tinct. cantharides	½ oz.
Carb. ammonia	½ oz.
Borax	1 oz.

Dissolve the two last in the water and add the solution to the other materials mixed together, and then shake up well.

The hair is moistened with this liquid, and the slight lather occasioned by rubbing with the hands must be washed out with water.

By doubling the quantity of borax, the lather is more soapy, but the addition is injurious to the hair.

By omitting the borax, a wash is obtained nearly

identical with the far-famed "Balm of Columbia," and similar cosmetics, for the hair.

Tissom's Hair Tonic.

Black tea	2 oz.
Water	1 gallon
Bay rum	1 quart
Glycerin	3 oz.
Tinct. cantharides	1 oz.

Exhaust the tea with the water heated to boiling, filter, and stir in the remaining ingredients previously mixed.

CHAPTER XXIII.

OF POWDERS.

THE powders for powdering the hair and skin have almost gone out of use, still, it is necessary to know their mode of manufacture, as there is yet a limited demand for them among theatrical artistes.

The chief ingredient is the best pearl starch, which should be very white, with a slight tinge of blue, not dull, but transparent, free from acidity, and perfectly dry, so that it crumbles between the fingers without any pasty feeling. First, then, we speak of powders scented by flowers, or, in French language, *des poudres aux fleurs.*

Poudre blanche.—The preparation of this is simple and easy. To the starch finely powdered, the perfume is imparted in two ways;—1st, either by stratification with flowers, or 2d, by commingling it with the pulverized odorous material.

As the former mode requires some time for its execution, and is very finical, it is not directly used with the whole of the powders as at first would be

supposed, but only for preparing the *body of the powder;* that is, a certain portion thereof is super-impregnated with the odor intended, and is made to perfume the larger portion. This *body*, as it were, acting that part and in corresponding proportion towards the powdered starch, that the essential oils do to the olive oil in the oils flavored with essences.

Powder body.—These bodies are generally prepared of odors among others, as follows:—

Au chypre
A la vanille
Au bouquet
Au bouquet chamois
Au bouquet de la reine
A l'ambre et au musc
A la rose
A la maréchale
A la mousseline
A la frangipane
A l'iris de Florence
Aux fleurs d'Italie
A l'œillet double
A l'héliotrope

Body of powder *à la fleur d'oranger.*

Take 3½ lbs. of orange flowers, reserving the stamina and pistils for the colored powders. This quan-

tity serving for 40 lbs. of the ordinary powder, should suffice to perfume 15 lbs. of the *body* of powder.

Procure a box or case, at the bottom of which lay a stratum of powder two inches in depth, and upon it a layer of flowers, and so continue with alternate strata of powder and flowers, until the box is filled. Stir up several times a day with a wooden pitchfork, and at the end of every twenty-four hours sift out the flowers, and renew the process with fresh ones, so often as is required to give a proper energy of perfume to the *body ;* say four or five times.

After the first sieving, which separates the larger particles of the flowers, bolt again through a much finer cloth to remove the more minute particles, which, if allowed to remain, would be generative of humidity. In default of this, it will be necessary to heat it in an oven, after the sifting.

Close up the box which contains the powder, hermetically, and set it in a dry place. As there is always more or less dampness remaining in the powder, it is better to give it a stirring every day or two, so as to dissipate the moisture by evaporation. It is this body that is mixed with the powder to impart to it its fragrance.

The bodies of the powders *au jasmin* and other

flowers are similarly prepared, and hence this example suffices for all of the same species.

Poudre à l'ambre.—Throw into a cast-iron mortar 1 oz. of ambergris, and when it has been finely powdered with a slightly warmed pestle, rub in an half ounce of good musk, 2 oz. benzoin, 2 drms. lump storax, and 2 oz. ambret seeds. As all these drugs are more or less viscous and resinous, their reduction must be facilitated by the addition of 4 oz. of ebony dust, 4 oz. pallissandre dust, and 2 lbs. of starch.

Pass the whole through a fine sieve, and then add of finely powdered starch, enough to make the whole product of 12 lbs. weight.

Poudre au musc.—This is similarly prepared. The proportions are 1 oz. musk, and ½ oz. amber. The coloring is effected by 4 oz. rose wood, and 4 oz. ebony wood.

Poudre à la vanille brune.—Take 1 lb. of finely divided vanilla, 1 lb. of rose leaves, 1 lb. of storax in lump, 1 lb. benzoin, 1 lb. of rhodium wood, 1 lb. of pallissandre wood, 1 lb. ebony wood, 2 oz. cloves, 2 drms. musk. Very dry marc from the infused essence of vanilla, may be used to improve the mixture. Reduce all these substances to powder, and pass them through a fine sieve, and add to the com-

position 1 lb. of white powder *à la tubéreuse*, 1 lb. *au jasmin*, 1 lb. *à la vanille blanche*. The whole well mixed together and sifted anew, forms a powder of agreeable odor.

Poudre à la vanille blanche.—Take 6 lbs. powder *à la tubéreuse* or *au jasmin*, and 6 oz. of vanilla in small thin pieces. Lay the vanilla in strata among the powder in a well-closed box, and let it remain so for about two weeks, at the end of which time separate it by a sieve. Renew the operation in the same way, and with the same vanilla, until the powder has taken up a sufficiency of perfume. Then sift and mix in 1 or 2 oz. of white powder *ambrée* and *musquée*, and sieve again through a very fine bolter.

Poudre de Chypre.—The *mousse de chene* is the basis; in powder, it has a penetrating odor, not, however, owing to its volatility.

Preparation of the mousse de chene, or *Chypre.*—Soak the *mousse de chene* in water for a day or two, and express the water through a linen cloth. Repeat this soaking in rose water mixed with a third of orange-flower water, and digest for two days; press as before, and dry it in the air if the season permits, or otherwise in a kiln.

CHAPTER XXIV.

OF COMPOUND POWDERS.

Body of powder *à la maréchale.*

Take 2 lbs. of orris, ½ lb. roses, 1 lb. of rhodium wood, 1½ lbs. ambret seeds, 2 oz. cloves, ½ lb. cinnamon, 4 oz. benzoin, ½ lb. storax, ½ lb. coriander, 4 oz. bergamot peel, 4 oz. orange flowers, 2 oz. badiane, 4 oz. angelica root, 4 oz. yellow sanders, 2 oz. souchet, 2 drms. musk.

Powder all of the above except the musk, and thereto add about 20 lbs. of starch, stirring and incorporating all the time. Then bolt through a very fine sieve.

The proportion of this body for perfuming the white powder, is 2 lbs. to every hundred. Mix the two thoroughly, and then sieve finely.

Body of powder *au bouquet de la reine.*

Take 2 lbs. of orris, ½ lb. pimento, ½ lb. coriander, 1½ lb. cloves, 4 oz. cinnamon, 4 oz. rhodium wood, 4 oz. dry orange flowers, 4 oz. bergamot peel, 4 oz. ambret seeds, 2 lbs. roses. The mode of prepara-

tion is the same as that for the preceding body. The proportion of this body is 2 lbs. to 200 lbs. of white powder.

Body of powder *aux fleurs d'Italie*, or *de Cypris*.

With 100 pounds of white powder (starch) mix thoroughly of

Powder *de rose musquée*	6 lbs.
" *de rose pâle*	6 lbs.
" *de jasmin*	4 lbs.
" *à la fleur d'oranger*	4 lbs.
" *à la tubéreuse*	4 lbs.
" *à la jonquille or jacinthe*	6 lbs.
" *à l'iris*	2 lbs.
" *à l'œillet, composée*	8 oz.
" *à l'ambre et au musc*	8 oz.

Incorporate thoroughly, and bolt through a very fine cloth. This is a much-esteemed powder.

Poudre à la rose musquée, composée. — This serves both as a body of powder and as a sachet powder.

Pale roses	6 lbs. 6 oz.
Powder *au Chypre*	1 lb. 6 oz.
Essence of roses	1 drachm.

Follow the same process as for the preceding powder, observing, however, that the essence of roses is not added until after the powder has been rubbed up and bolted.

Poudre à l'œillet, composée, both as a body and for sachets.

Roses	3 lbs.
Orris	3 lbs.
Cloves	6 oz.
Bergamot peel	1 lb. 4 oz.
Ambrette seeds	1 lb. 8 oz.
Cinnamon	6 oz.
Souchet	6 oz.
Pale roses	1 lb. 10 oz.
Acacia (dry)	8 oz.
Orange flowers	8 oz.

Poudre à la mousseline des Indes.

Pulverized	Orris	1 lb.
"	Coriander	8 oz.
"	Cinnamon	1 oz.
"	Cloves	1 oz.
"	Ginger	2 oz.
"	Ambrette seeds	2 oz.
"	Badiane or China anise	2 drms.
"	Mace	2 oz.
"	Ginger	2 oz.
"	Sanders	1 oz.
"	Pallissandre wood	2 oz.

Powder the whole carefully, and sieve.

CHAPTER XXV.

OF COLORED POWDERS.

THESE powders, formerly much used for disguising the color of the hair, are made of all shades.

Poudre noire, or *du Liban, à la fleur d'oranger.*—Mix together equal parts of impalpably fine powder of charcoal and ivory black. Of the stamina and pistils of orange flowers, thrown aside in previous operations, and the above mixture, make alternate layers, and place by in a box, as before directed. They can be pulverized easily and finely, by adding to a pound of this odorous powder a ¼ lb. of ambrette seeds. Bolt and use this black powder in the proportion of 2 oz. to the pound.

Bergamot peel, dried and pulverized, is also used for perfuming this powder.

Poudre blonde.—Mix together yellow ochre with the white powder and the brown powder *à la*

vanille, in quantity sufficient to furnish the desired shade.

Poudre brune et châtaine.—Mix together roasted starch, ebony, and St. Lucie woods, in quantities to produce the required tint. These powders carry their perfume with them; nevertheless, a little pulverized orris or amber can be added.

CHAPTER XXVI.

OF ABSORBENT POWDERS.

THESE powders are largely in use.

Poudre d'iris.—Take of

Powdered	orris root	12 lbs.
"	bergamot peel	8 oz.
"	acacia flowers	8 oz.
"	cloves	½ oz.

Mix and pass through a sieve. The labels accompanying the boxes in which this powder is packed, should direct its application at evening, and its removal from the hair with a fine-tooth comb the following morning.

Son preparé et perfumé.—(For cleaning the hair.) Powder very finely and carefully the bran of wheat, perfectly and absolutely dry, and, to every pound, add 2 oz. powdered orris, and pass through a sieve. This is used as is the preceding powder.

Poudre hygiènique de féverolles.—Take 1 lb. of completely dried horse and kidney beans, add 2 oz. orris, powder finely and sieve.

Poudre d'alun de toutes odeurs.—Reduce to a very fine powder 1 lb. calcined alum, sieve, and add it to a ½ lb. of pulverized orris. This is the *alun simple à l'iris.*

To obtain the alum of divers odors, take the above as the basis or body, and add to every pound thereof an ounce of any very fragrant powder, or two oz. of such as are of mild perfume. The proportion of orris is sometimes diminished. Here are two examples.

Poudre d'alun au jasmin—au jasmin jonquille.—One pound of alum, 6 oz. of orris, 2 oz. powder *au jasmin.* To make the aluminated powder *au jasmin-jonquille,* add 2 oz. powder *à l'acacia.*

Poudre d'alun au musc.—The same proportions of alum and orris as for the preceding powder, and 1 oz. of strong powder *au musc,* perfumed with lavender, thyme, and other aromatic plants. This powder is an excellent absorbent of the perspiration of the feet, and serves to conceal the bad odor thereof.

CHAPTER XXVII.

OF DEPILATORY POWDERS, &c.

In this chapter we treat of depilatories in every form whatsoever, as pomades, powders, waxes, &c., because, as the basis of all is very nearly similar, it would be useless to divide the subject into different heads.

Crême Parisienne dépilatoire.—Take

Quicklime	2 oz.
Orpiment (Sulphuret of Arsenic)	½ oz.
Alkanet in powder	2 drms.

Mix together and pack up in bottles or boxes, bearing directions as follows, and to be strictly conformed to in the application of the powder.

Put some pinches into a saucer or egg-glass, and pour upon it enough warm water to thin it into a pasty or pap consistence, and apply it in this form to the places to be depilated. Let it remain five to eight minutes, then moisten with a little warm water, and gently remove the dampened stuff with

the point of a knife. Afterwards sponge the part with warm water and dry without rubbing.

It is necessary that there should always be an interval of twenty-four hours between any two applications of this powder.

Rusma dépilatoire des harems.—Take 2 oz. quicklime, with which mix ½ oz. of orpiment or realgar, and boil the whole in 1 lb. of caustic lye. By way of a test, dip a feather therein; the falling off of the beard when it is taken out indicates a suitably prepared *rusma*. It is applied to the hairy portions of the body to be depilated, and then washed off with warm water. This depilatory is of great causticity, and often attacks the skin simultaneously with its operation upon the hair—hence its application should be made carefully and with much circumspection.

Here is the mode of using in the Turkish harems this *rusma*, called also by the Arabs and Persians *nourei*, *nuret*, *nûre*.

The proportions of this mixture are varied according to the age of the persons who are to use it, the nature of their skin, and color of their hair; sometimes 1 oz. of orpiment is used to 8 oz. quicklime, again, 2 oz. orpiment to 2 oz. lime, and sometimes 3 oz. orpiment to 15 oz. lime. The third

mixture is the most active. To temper its dangerous causticity, it is mixed with an eighth of starch, and formed into a paste with a little warm water. In this way it is applied to the hairy part, and there left for several minutes, moistening occasionally to prevent its drying too quickly, and now and then essaying whether the hair detaches easily and readily; generally it appears burned, then the operation is finished. A use of this article in other than very small quantities engenders a dangerous inflammation of the skin. A printed envelop containing these directions should accompany each package.

Pommade dépilatoire de Turquie, à la rose.—This is the *rusma* mixed with lard, a little cochineal, and some drops of essence of rose.

Poudre dépilatoire parfumée, à toute odeur, or *poudre subtile.*

Quicklime	12 oz.
Orpiment	1 oz.
White powder (*au jasmin*)	10 oz.
Powder of palm soap	4 oz.

It is evident to the perfumer that he can change the odor by substituting any other perfumed powder. Use plain starch and an inodorous soap, when a powder destitute of fragrance is required.

This powder, when applied, is thinned with a little water.

Poudre dépilatoire simple.—Mix together

Quicklime	4 oz.
Powdered orris	1½ oz.

Cire dépilatoire.—Take

Bungundy pitch	1 lb.
Sap green	½ oz.

Melt the pitch in a stoneware vessel, and then add the sap green, strain through a strong cloth, roll the composition in a marble slab, and divide it into small pieces or forms.

To apply this wax, it is warmed by the heat of a candle flame and then gently rubbed over the hairy part; it comes off then with the beard attached.

Extrait dépilatoire.—Pulverize and mix together

Quicklime	2 oz.
Orpiment	¼ oz.
Nitre	2 drms.
Sulphur	2 drms.
Powdered orris	2 oz.

Sieve, and add a pound of good lye.

These recipes are here given as necessary to a complete and thorough instruction in the art of the perfumer; but it is, indeed, scarcely questionable

whether the danger to be apprehended from their use is not a conclusive offset to any advantages they may otherwise possess. No depilatory containing arsenic can be applied without liability of injury to the system or the skin.

Arsenic, which is a main ingredient of all of them, is one of the most virulent poisons known; and, as it must necessarily be used with great caution, in order to prevent injury, it is better to substitute something else, the employment of which, at the same time that it is equally effective, shall be less hazardous in its application to the skin. With this view the following recipes have been devised:—

Chinese Depilatory.

Quicklime 1 lb.

Pearlash and sulphuret of potassium, each, 2 oz.

Triturate together, sieve, and preserve the fine powder in a well-stopped bottle. It is used as is the *Poudre subtile.*

Rayer's Depilatory.

Lime	1 oz.
Carbonate of potash	2 oz.
Charcoal powder	1 drachm.

CHAPTER XXVIII.

OF MISCELLANEOUS POWDERS.

Poudre de gomme (for false toupets).—Powder equal parts of gums Arabic and tragacanth, and add one-fourth of powder of orris, or white perfumed powder with a third of pulverized sugar-candy. When used, this composition is to be made into a pasty consistence, with a sufficient quantity of water.

Poudre steatite de Florence (for drawing on boots).—The steatite (soapstone) is a variety of talc, white, gray, or green, and sometimes, but rarely, red and yellow, of specific gravity, varying from 2.60 to 2.66. It is a very soft stone, and can be colored of many shades with substances soluble in oils, acids, alkalies, and alcohol.

It is used naturally or colored, according to choice. The unctuous property of this substance renders it particularly applicable in facilitating the entrance of the foot into the boot. It suffices merely to sprinkle the powder in the interior of the boot.

CHAPTER XXIX.

OF COSMETICS FOR THE SKIN AND LIPS.

Amandine de Laboullée, Paris (for embellishing the skin).—Mix together, in a mortar, 2 oz. gum Arabic, and 6 oz. white honey, and when the whole is rubbed into a thick mass, add 3 oz. perfectly neutral white potash soap; this having been thoroughly incorporated, then gradually add 2 lbs. of fresh cold-pressed oil of sweet almonds, and, finally, to the whole the yellow of 5 eggs, accurately freed of their white or albuminous part; this gives the paste a firmer consistence, which must be diminished with a thick milk of pistachio, made of 4 oz. fresh-peeled pistach nuts, and 4 oz. distilled rose water. This milk imparts a light-green shade, which can be heightened, if desired, with 1 or 2 drachms of oil, charged with the lees of spinach; aromatize with the essence of bitter almonds, in the proportion of a ½ drachm per pound of paste.

Directions for using this paste.—A small portion, about the size of a filbert, produces, with a little

warm water, a very white lather, of agreeable odor. This quantity suffices to rub the hands and face, which should be done lightly, and the skin wiped whilst the water is still *en lait* (in lather, or milky). The effect of the amandine is to whiten and soften the skin, and prevent it from chapping.

Essence à la toilette (by Vincent, Paris).—This essence is obtained from a soap, the composition of which is as follows: 180 lbs. olive oil soap, 1 lb. *extrait d'huile d'olive*, or 4 lbs. reduced by evaporation to 1 lb., 5½ oz. *extrait d'huile* of turpentine, or 2 lbs. reduced by evaporation to 5½ oz., 20 lbs. of beef gall, of syrupy consistence.

This soap should be well boiled for a long time, and with mild lyes of the best soda, and at a continued temperature of 175° F. Warm the mixture of the three extracts to 120° F., then mix in the soap gradually; increase the heat, and continue to boil for nearly two hours, when gradually diminish, until the soap is fit to be framed. The operation ought to take about twelve hours.

The soap being made, proceed as follows for the fabrication of the essences therefrom. They are of three degrees:—

1st degree, 4 oz. soap, formed as above,
5 oz. alcohol, 33°
14 oz. water.

2d degree,	7 oz. soap,	
	7½ oz. alcohol,	33°
	14 oz. water.	
3d degree,	9 oz. soap,	
	11 oz. alcohol,	33°
	14 oz. water.	

Dissolve the mixture over a water-bath, at a mild heat, so that the spirit may not evaporate; then filter. This composition unites in sufficient quantities with all the essential oils to be perfumed thereby, and it can also be scented by other kinds of perfume. Its quality can be varied by augmenting or diminishing each of its component substances, and thus the variety can be changed *ad infinitum*.

This essence possesses the property of cleansing the body without injury to the skin, and consequently is advantageous for shaving. It is also available in removing grease-spots from all stuffs that will bear washing in cold water.

Plante saponaire cosmetique, of ISNARD and LASTEYRAS, Paris.

As the root of the soapwort (*caryophyllée*) contains a vegetable soap, its application as a cosmetic for the hands is designed in the following prepara-

tion. First of all, the root must be well dried in the air, so as to be pulverizable. Then make the ensuing composition:—

Soapwort root, very finely pulverized,	2 parts.
Marshmallow, " " "	1 part.
Farina of horse-chestnuts "	1 "

Perfume with the following mixture:—

Essence of roses,	2 drachms.
" " Rhodia,	1 drachm.
" " Mecca balsam,	1 "
Balsam of Peru,	1 "
Red thyme,	1 "

Composition par BLAQUE, *Paris*, for softening the skin.

Butter,	4 lbs.
Oil of sweet almonds,	4 lbs.
Common white soap,	6 lbs.
Decoction of marshmallow,	8 lbs.
Alcohol,	1 pint.

Melt and heat together, in a stoneware vessel, over a water-bath, stirring well all the time; and when the whole is thoroughly incorporated, pour out to cool. Perfume according to taste. A quantity of the size of a filbert, well rubbed on, suffices for washing the hands.

Pommade Mexicaine, by MICHEL and LANGE, Paris.

Butter of cocoa,	64 oz.
Oil of noisette	32 oz.
Oil of ben	32 oz.
Vanilla	2 oz.
White balsam of Peru	1 drm.
Flowers of benzoin	½ drm.
Civet	½ grain
Neroli	1 grain
Essence of rose	1 grain
Esprit d'œillet giroflée	1 oz.

Distilled water of lemon and bergamot 1 pint.

Macerate the vanilla in the cocoa butter for eight days, at a temperature of 70° F. In the alcohol, dissolve the balsam of Peru, benzoin, and civet, and add thereto the *esprit d'œillet* (clove-jelly). Again, incorporate the essence of rose and the neroli with the oils of ben and noisette, by thorough stirring. These mixtures accomplished, gently boil the cocoa and vanilla in a tinned vessel, over a water-bath, and at the first ebullition add the aromatic spirit, and continue the boiling for a quarter of an hour, in order to evaporate the alcohol and embody in the fat the aromas and resinous

matter with which it was charged; then pour in the oils, and withdraw the whole from the fire. This done, strain the mixture into a marble mortar, and keep constantly rubbing and stirring with the pestle; in an hour congelation commences, and the mixture takes the consistence of a liquid cream, and, at this stage, stir in the gradually added odorous waters; and to color, throw in a little carmine cleared with water and ammonia. The stirring is continued until the paste is entirely cooled, when it is ready to be put up in pots.

Application.—This paste is spread upon the neck or face with the finger, then moistened and rubbed in with a wet sponge. Dry with a fine linen towel. This direction applies also to other similar pastes which are to be described, and should be expressed upon the label of each package.

Crême du Cathay, by FARINA.

Mecca balsam	3 grains
Oil of sweet almonds	4 oz.
Spermaceti	2 drms.
Flowers of zinc	1 drm.
White wax	2 drms.
Rose water	6 drms.

Mix together over a water or sand bath. According to Farina, this cosmetic cream is one of

the most agreeable, whitens the skin, and destroys its wrinkles and roughness.

Pâte axérasine, by BASIN.

Pulverized bitter almonds	8 oz.
Oil of sweet almonds	12 oz.
Green soap of commerce	8 oz.
Spermaceti	4 oz.
Soap powder	4 oz.
Vermilion	2 drms.
Essence of rose	1 drm.

Melt the soap and spermaceti in the oil, over a water-bath, and then add the soap powder. When the mixture is complete, throw the whole into a marble mortar, and rub in, little by little, the powdered bitter almonds, and, when the whole is well incorporated, the essence of roses and vermilion. This last should be previously thinned out in a mortar, with some drops of essence of bergamot.

This paste, its author says, will remove from the skin all scurvy excrescences, red spots, and the scaly surface remaining after sickness with the smallpox. He farther adds, that it is an excellent preventive of the chilblains, and powerfully promotive of health by facilitating and increasing perspiration.

It is soluble in water, preserves its perfume with-

out regard to temperature, and is one of the very best cosmetics.

When white soap is substituted for the green soap, the paste takes a red tint, and profiting by this circumstance, the perfumer can devise modes of varying the color.

Pommade en Crême.—Take equally of

White wax and spermaceti	1 drm.

Melt together, and add

Oil of sweet almonds	2 oz.
Rose water	½ oz.
Tincture balsam tolu	1 drm.

Orange flower or any other perfumed water can be substituted for the rose water. This process yields an excellent cosmetic.

Pommade au beurre de cacao, by LANGE, Paris.

Perfectly purified butter of cocoa	1 lb.
White wax	½ lb.
Spermaceti	½ lb.
Strongly rose-scented olive oil	2 lbs.
Flowers of benzoin	1 drm.
Vermilion	a pinch.

Melt together by a mild heat the wax, spermaceti, butter, and oil; then pour the whole into a marble mortar, and rub it continually with the pestle until it commences to congeal, when add, in

successive portions, 10 oz. of water, holding in solution the flowers of benzoin. Continue the stirring until a perfect incorporation of the materials, then add the vermilion and diffuse thoroughly by renewed trituration.

Pommade de concombres.—Take

Pure lard	4 lbs.
Calf suet	1 lb.
Juice of cucumbers	3 lbs.

Melt the two greasy bodies, and then mix in the juice, and macerate for some time. After a day or two's infusion, decant, and add as much of fresh juice, and repeat this operation ten times and always with new juice. When the fat has acquired a perceptible odor of cucumbers, melt over a water-bath, and add to every pound 3 drms. of starch. Stir well, and when cool put up into pots.

This pomade is very justly esteemed for healing any inflammation of the skin. It should be made in large quantity during the autumn.

Pommade de Ninon de L'Enclos, by BOYER.—Take

Oil of sweet almonds	4 oz.
Washed lard	3 oz.
Rose water	3 oz.

This pomade is extremely mild and refreshing.

Pommade aux limaçons.—Take

White wax	1 oz.
Oil of sweet almonds	5 oz.
Rose water	8 oz.

Liquefy the wax in the oil by heat, and pour the mixture into a mortar to cool. As soon as it has congealed, rub it up with the pestle for a half hour or more, when add the rose water. This composition is a pleasant application to the skin when irritated.

Crême cosmétique du Bengale, by CHAUMAS.

Sweet and bitter almonds	4 lbs.
Spermaceti	4 oz.
White wax	4 oz.
White soap	4 oz.
Distilled water	8 qts.
Simple rose water	2 qts.
Spirit of rose	1 qt.
" bitter almonds	1 qt.
Essence of vanilla	1 oz.
" rose	½ oz.
Tincture of benzoin	4 oz.
Gum tragacanth	1 drm.

Scald the almonds, peel, and finely grind them in a mill, and after having melted the spermaceti and wax over a water-bath, and then added the soap thereto, incorporate them with the mixture.

This well done, add the essence of rose, vanilla, and benzoin; thin out the composition with the distilled and rose waters, and the spirits of rose and almonds previously mixed together in a separate vessel. To drain the liquid, throw it upon a clean linen cloth arranged upon a funnel, dipping into a glass jar. When it has once filtered, pass the cream a second time through a finer cloth, to separate the smaller particles of the almonds. Finally, mix 1 drm. of carmine with a solution of ½ drm. tragacanth in 8 fluidounces of water, and add it to the cream to obtain a beautiful rose color.

Pommades des Sultanes.—Melt over a water-bath 1 oz. white wax and 2 oz. spermaceti; withdraw from the fire, and then add 8 oz. oil of sweet almonds, 8 oz. oil of white poppy, and continue beating together without interval until the mixture begins to get white, then put in ½ oz. of Mecca balsam and a gill of rose water, and prolong the rubbing until the mixture will take up no more of rose water, and detaches itself in large flakes or lumps.

In filling the pots, take care to cover the contents with a little rose water. This is among the best preparations for softening the skin and preserving its freshness.

Pommade de beauté, for improving the complexion, and healing chaps. Melt together over a water-bath

White wax	1½ drm.
Spermaceti	2 drms.
Oil of sweet almonds	½ oz.
Oil of olives, pure	½ oz.
Oil of poppy	½ oz.
Balsam Peru, liquid	4 drops.

Add the balsam after having well beaten the mixture.

This is an excellent cosmetic.

Pommade de la Providence.—Melt of body, purified with rose water, 1 lb., and when cool, add 4 oz. of pearl white and 2 oz. Venetian talc, finely powdered. After a thorough incorporation by trituration in a marble mortar, it is potted for use. This also is a white *rouge*.

Pommade d'Aspasie.—Take 2 drms. white wax, 2 drms. spermaceti, 4 oz. oil of sweet almonds, melt together over a water-bath, and add 3 oz. pure water; the mixture of the whole being effected, it is then poured into a marble mortar, and well rubbed up with the pestle until cool, and there are no longer any lumps. To improve this pomade add some drops of Mecca balsam and rose water.

Pâte divine de Venus, by BOURDEL.

Mix together equal parts of purified lard, fresh butter, and honey, and add a half portion of Mecca balsam and essence of roses.

Pommade des grâces, or Baumè's *pommade de lavande*.—Take of fresh and clean lavender flowers 20 lbs.

Lard	5 lbs.
White wax	½ lb.

Infuse in a close vessel over a water-bath, for two hours, 4 lbs. of the flowers and the lard, and strain and express. Repeat this operation until all the flowers have been in contact with the grease. Macerate and wash the pomade in frequent waters to remove the extractive matter of the lavender flowers. Remelt anew by a mild heat and pour into pots.

Pommade d'Hebe, for removing wrinkles and furrows.

Juice of lily bulbs	2 oz.
Honey	2 oz.
White wax	1 oz.
Rose water	3 drms.

First melt the wax, and thoroughly incorporate the rest therewith. Apply to the face upon going

to bed, and rub off in the morning with a linen cloth.

Fisher's Lip Salve.

White wax	2 ounces.
Lard	2 "
Spermaceti	½ "
Oil of sweet almonds	1 "
Balsam of Peru	¼ "
White sugar	½ "
Raisins	6 "

Let the mixture simmer for two hours in a covered vessel, and then strain through linen.

CHAPTER XXX.

OF COSMETIC MILKS.

Lait de rose (milk of rose).—To 1 oz. of fine olive oil, and 6 drops of oil of tartar, add a quart of rose water.

This milk, as also those following, is generally put up in handsome octagonal flagons.

Lait de rose (Loudon).

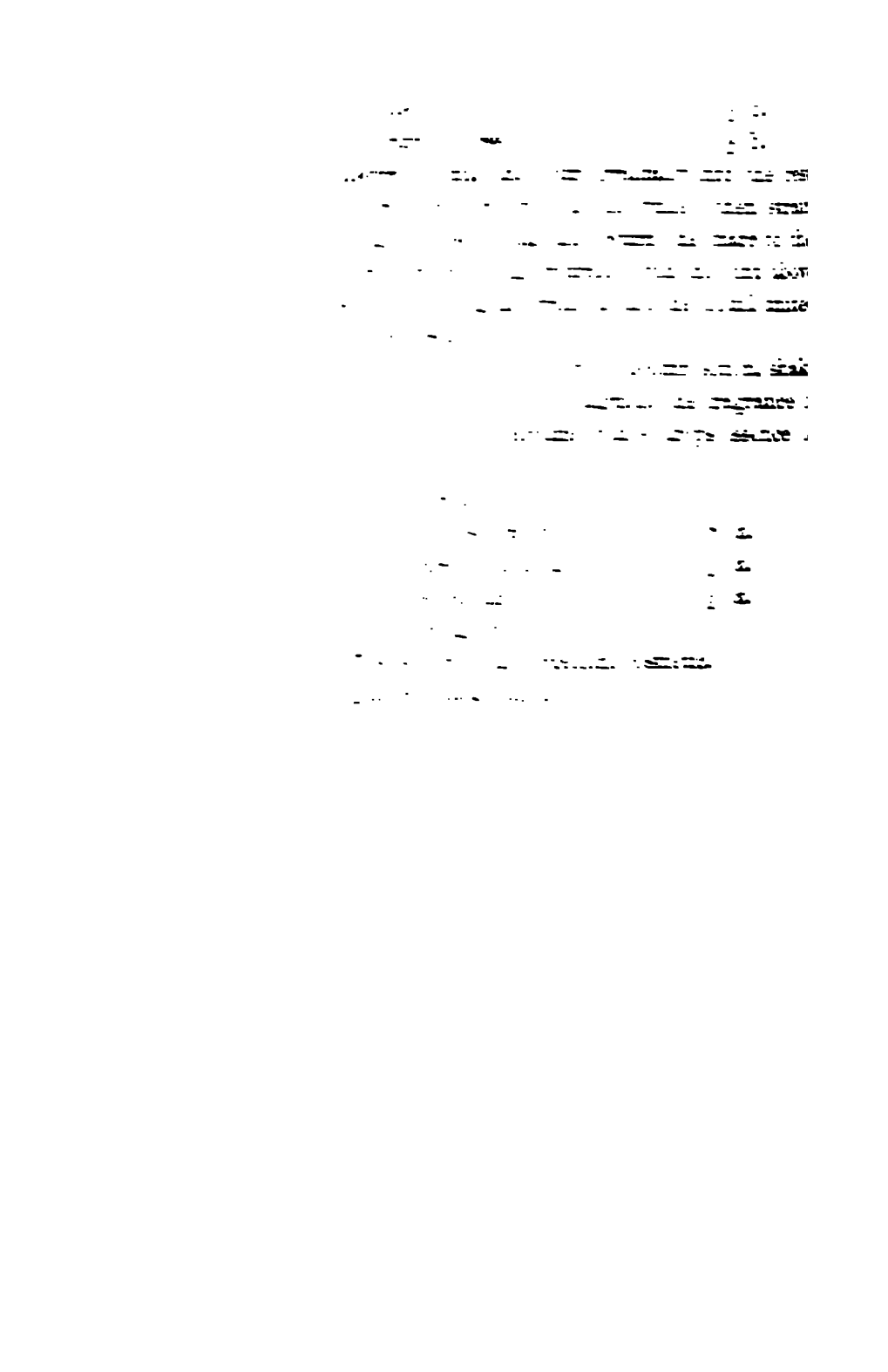
Melt together, in a stoneware vessel, over a water-bath

Spermaceti	1 oz.
White wax	1 oz.
White soap	1 oz.

Rub up in a marble mortar

Bitter almonds (best quality)	2 oz.
Sweet almonds "	1 lb.

Take out three-fourths, and upon the remaining fourth pour the above mixture, and continue rubbing actively, and afterwards add, by degrees, the other three-fourths of the almonds, always pestling rapidly so as to thoroughly incorporate the mixture.



chet, 1 oz. cloves, 2 oz. fine cinnamon, 2 nutmegs, 2 oz. ambrette seeds, 2 oz. calamus, 1 drm. of amber, and as much of musk. Bruise all together, and pass through a fine sieve, and infuse the powder for a month in 10 quarts rectified spirit, and 2 quarts of brandy. Let the operation be facilitated by the heat of the sun, or that of a stove-room, and stir the infusion from time to time. Take care not to fill the bottle too full.

Lait de concombres.—Proceed as for the milk of roses, but substitute the juice of cucumbers for the rose water.

Lait de lys.—The operation is similar to the last, but in lieu of white soap, take 2 oz. of lily bulbs, and for the juice of cucumbers substitute the clarified juice of house leek. Perfume with 1 drachm essence of jasmine.

Lait du Japon.—Take

Oil of	sweet almonds	4 oz.
	deliquesced tartar	2 oz.
	rhodia	2 drops
	jonquille (fresh)	1 oz.

Mix the whole together.

It is applied to the face upon going to bed.

Lait de fleurs d'oranger.—Take

Tincture benzoin	3 drms.
Orange-flower water	4 oz.
Néroli	4 drops.

Lait d'amande de Sévigné.—Take milk of sweet almonds, made by thinning out 1 lb. of bruised almonds with a second decoction of

Pearl barley	3 pints
Mecca balsam	4 drops.

Mix, strain, and perfume with 3 drops essence of vanilla.

Topique labial of MADAME DELACOUR (for the lips).—This celebrated composition, it is said, renders the lips soft, prevents them from chapping, and preserves them fresh and healthy against the effect of cold. It is very astringent, and, consequently, should not be used if the lips are at all inflamed. Either of these recipes afford a good result.

1st *Composition.*

Oak galls	1 drm.
Pomegranate	1 drm.
Myrtle leaves	½ drm.
Sumac	1 drm.
Sulphate of zinc	½ drm.
Rose salve	4 oz.

Wax	1 oz.
Spermaceti	1 oz.
Oil of sweet almonds	1 oz.
Lait virginal	2 drms.
Mecca balsam	12 drops.

2d *Composition.*

Oak galls	2 drms.
Cyprus nuts	2 drms.
Pomegranate rind	2 drms.
Myrtle leaves	3 drms.
White wax	1 oz.
Sumac	3 oz.
Oil of sweet almonds	1 oz.
Lait virginal	1 drm.
Spermaceti	3 oz.
Sulphate of zinc	4 drms.
Mecca balsam	½ drm.

3d *Composition.*

Instead of white wax, spermaceti, and oil of almonds, take

Extract of marshmallow root
" flowers mallow
" violet flowers
" rose

Perfume in each case with some drops of an essential oil.

Pommade rosat (for the lips).

White wax	2 oz.
Oil of sweet almonds	4 oz.
Alkanet (in powder)	3 drms.

Melt, strain, and add 12 drops of oil of rose.

Put up in small wood or metallic boxes.

Cerat d'amour (for the lips).

Spermaceti	2 oz.
Oil of sweet almonds	4 oz.
Milk of roses	1 drm.
Powdered roses	3 drms.

Manipulate after the usual method.

Crême de Psyché (for the lips).

White wax	1 oz.
Spermaceti	1 oz.
Oil of sweet almonds	5 oz.
Mecca balsam	1 drm.
Pulverized acetate of lead	½ drm.

Prepare as for the *pommade rosat*, and add, whilst the mixture is warm, the balsam, and when it is cooled, the sugar of lead.

Pommade au raisin (for the lips).—Take ½ lb. fresh butter, ¼ lb. new yellow wax, 1 oz. alkanet, three bunches of raisins (use only the seeds), put the whole into a stoneware vessel, and boil to the consistence of a syrup, and then strain through a

fine white cloth, without expression. This pomade, though simple, is excellent.

Eau de Guerlain, for the removal of pimples and splotches.

Distilled water of cherry laurel	1000	grains
Extract of lead	125	"
Tincture of benzoin	15	"
Alcohol	60	"

Add the tincture and alcohol, and shake the whole intimately together.

CHAPTER XXXI.

OF COSMETIC POWDERS.

Poudre de la mer rouge, by CAMBOU, Paris.—Take

Alum	1 lb.
White sugar	1 oz.
Gum Arabic (best)	1 oz.
Carmine	1 oz.

Mix and reduce the whole to an impalpable powder, and sieve through a fine cloth.

This powder, its author says, is curative of the ringworm, red blotches, and pimples.

It is tied up loosely in a bag, and this bag, moistened with fresh water, is rubbed gently over the skin.

Serkis du Sèrail, of DISSEY and PIVERT, for whitening the skin and removing blotches.

Sweet almond pastes (*pate d'amandes douces*) in very fine powder	10 lbs.
Rye meal	6 lbs.
Fecula of potatoes	6 lbs.

Oil of jasmine	8 oz.
" orange flowers	8 oz.
" rose	8 oz.
Balsam Peru (black)	6 oz.
Essence of rose	60 grs.
" cinnamon	60 grs.

Make a separate mixture, in a stoneware vessel, of the essences and greasy bodies, and turn it gradually, and little by little upon the powders, rub well the whole, and pass through a fine sieve.

To color red 3 lbs. of this composition, take 1½ oz. of cochineal in very fine powder, mix well therewith, and sieve.

Poudre orientale.—Take

Peeled sweet almonds	2 lbs.
Rice flour	4 oz.
Orris root	4 oz.
Benzoin	4 oz.
Spermaceti	3 drms.
Salt of tartar	3 drms.
Volatile oil of Rhodium wood	30 drops.
Volatile oil of lavender	30 drops.
" " cloves	30 drops.

Mix the whole and sieve finely. This powder is very mild and agreeable.

Pommade, by Dr. PITTSCHAFT, Baden, for chapped lips.—Take

Sublimed oxide of zinc	1 drm.
Lycopodium powder	1 drm.
Pommade rosat	4 oz.

Mix, and make into a perfectly homogeneous pomade.

This is an excellent remedy for chapped lips, and is beneficial in cases of ulceration of the nails of the feet. Its application in such instances must be immediately after bathing the affected parts.

CHAPTER XXXII.

OF ALMOND PASTES.

THE marc remaining after the expression of the oil is generally called *pâte d'amandes*, or almond paste. This product is sold in two forms, either liquid or in powder.

ALMOND PASTES IN POWDER.

Pâte d'amandes bise.—The marc, obtained by expression of equal parts of apricot kernels and bitter almonds, and again alternately bruising and pressing every two hours for three days, when they are perfectly dried by the sun or stove heat, powdered and sifted, forms the product above named, which is sold unperfumed, and at a low price.

To make it more salable, it is mixed with potato fecula or rather bran, the odor of the latter being masked by the addition of 1½ oz. of essence of bergamot to 8 lbs. of paste. The potato fecula by itself is a most excellent cleanser and whitener of the hands, but it is fraudulent to introduce it and encourage its sale under a fictitious name.

These almond pastes are put up in paper envelops, tastily bound with red ribbons, neatly gathered at the knot into the form of a rose. The difference in the binding and costliness of the wrapping generally indicates the quality of the article. These sacks or envelops range in capacity from 1 oz. to 16 oz.

Pâte d'amandes douces, blanche—demi-amère.—The almonds being well pressed, the cakes are broken in pieces and put in a place free from dampness. When they are well dried, powder and sieve them—this done, the body, *de corps de pâte d'amandes*, is ready to receive the chosen perfume, or to be mixed with the brown bitter paste to furnish *la pâte demi-amère.*

Pate d'amandes douces, blanche, à la bergamote.—The following example shows the mode of imparting all other perfumes to this kind of almond paste.

Into a marble mortar put 8 lbs. of paste, to which, if it is thought proper, can be added a fourth of bitter almond paste. Pour in 2 oz. essence of bergamot, and triturate until the lumps are entirely dissipated and the whole reduced to fineness. Sieve, and put up in boxes.

This paste is similarly perfumed *à la rose, fleur d'oranger, acacia, tubéreuse*, amber, and musk, the

proportion of each varying with the required energy of the odor.

Pâte d'amandes amères.—This paste, obtained by triturating scalded bitter almonds, is not perfumed as is usual, lest its natural odor be impaired; but this smell is mitigated by the addition of 3 lbs. of paste of sweet almonds to every 10 lbs. of bitter almond paste.

To please all tastes, it may be perfumed with 4 drachms of essence of vanilla or ambrette.

Fleur d'amandes douces, à la violette.—Place 1 lb. powdered orris in a mortar, and rub up therewith 2 drms. essence of Portugal, and 2 oz. essence of violet, and then add, stirring well during the time, ½ lb. of bitter almond paste, and 10 lbs. sweet almond paste. Sieve.

Pâte d'amandes d'Italie.—Mix together equal parts of pastes of sweet almonds, of noisette, of ben, and of rice flour. Perfume with 1½ oz. of honey water, or with the same quantity essence of Portugal, to 6 lbs. mixed paste.

CHAPTER XXXIII.

OF LIQUID ALMOND PASTES.

Pâte d'amandes aux jaunes d'œufs.—To 4 oz. sweet almonds, powdered finely in a marble mortar, add the yellows of three fresh eggs, mix well, thin out with 8 ounces of milk, and boil until it assumes the consistence of paste, stirring constantly during the ebullition. Perfume with 1 drm. essence of vanilla.

Pâte d'amandes à l'eau de vie de lavande.—Take 2 lbs. sweet almond paste, 8 oz. bitter almond paste, and 10 oz. of the nuts; mix the whole together in a mortar, and baste with lavender brandy, in the proportion of 4 oz. Triturate well, so as to reduce the lumps.

Pâte d'amandes, suave, orientale.—Take

Peeled bitter almonds	12 oz.
Rice flour	7 oz.
Bean flower	3 oz.
Fine orris powder	1 oz.

Pulverized carbonate potassa	4 drms.
Alcoholic essence of jasmine	3 oz.
Essential oil of Rhodium	2 drops.
" " neroli	1 drop.

Powder the almonds, and, to prevent the separation of the oil, add a little water during the trituration. The almonds being reduced to a homogeneous mass, mix in the rice and bean flowers and the powdered orris. Rub up well, so that the mixture may be thorough and uniform. Dissolve the carbonate of potassa in a little water, and add it in successive portions to the above mass, pouring in immediately afterward the essence of jasmine and the essential oils, previously mixed and well shaken together. After a thorough rubbing up, the paste is then ready for being boxed. If there is not enough liquid to make the paste of proper consistence, add a *q. s.* of rose water.

Pate d'amandes au miel, parfumée à toutes odeurs.—Take

Honey	6 lbs.
Sweet almond paste	6 lbs.
Oil *aux fleurs*, according to choice	12 lbs.
Yellows of eggs	20

The honey should be boiled separately and

strained. Knead in the almond paste, and terminate the operation by adding little by little, and alternately, the yellows of the eggs and odorous oil.

When the oil is of a mild odor, the quantity indicated is not too much, but if, on the contrary, the oil *à la tubéreuse*, *à l'orange* flower, amber or musk, is used, it is necessary to weaken the force of the perfume by an addition of a third of sweet almond oil.

Pâte d'amande liquide à l'alcohol, perfumed or not perfumed.—Dilute with weak alcohol (or an alcoholic tincture, as, for instance, that of cinnamon, or vanilla, thinned with brandy), 10 lbs. of sweet almond paste, and pass the mixture through a mill for the purpose (a paste mill), and boil in a tinned vessel over a good but not too lively fire, stirring it all the time to prevent the adherence of particles to the bottom.

The paste being half boiled, remove from the fire, and add

Powdered alum	2 oz.
" spermaceti	2 oz.
White salt	4 oz.
Yellows of eggs thinned with brandy	24 oz.

Replace afterwards upon the furnace, and continue boiling until the paste readily detaches itself from the spatula. Then take it from the fire, stir several times whilst it is cooling, and pass it through a hair sieve; and if it is too thick, thin out with a sufficiency of plain brandy, or of brandy having the odor of the tincture employed.

Perfumed brandy may be substituted for the alcohol.

Pate d'amandes des sultanes.—Take

White paste of sweet almonds in powder	6 lbs.
Then dissolve in 1 pint of alcohol—	
Essence bergamot	4 drms.
" lemon	2 "
" Portugal	2 "
Essential oil of cloves	2 "
Liquid balsam Peru	2 "
Essence of fennel or orris	½ "
Rose water	½ pint.
Orange-flower water	½ "
To increase the fragrance, add	
Essence of amber	2 drms.
" " musk	1½ drms.

Temper the paste with this composition.

Pâte d'amandes, in cakes, for baths.—Make of a select liquid paste, a paste sufficiently firm, and cut into cakes or tablets. This article is most excellent for use in the bath-tub.

The perfumes of the foregoing can be varied to suit taste.

CHAPTER XXXIV.

OF COSMETIC GLOVES.

THOUGH not altogether fashionable now, these gloves are still worn by those who are subject to chaps and chilblains; the ladies, especially, use them; hence the necessity of always being provided with a small stock.

Gants cosmétiques au bouquet.

Wax	4 drms.
Spermaceti	4 "
White soap	4 "
Mutton suet	7 "

Mince up each of these substances separately, melt them over a water-bath, and add

Olive oil	1½ oz.
Pommade rosat	1½ oz.
Benzoin	1 drm.
Peru balsam	1 drm.
Essence of roses	some drops.
Honey water, *au bouquet*	½ oz.

Stir together until the mixture is complete, and,

whilst the mass is still hot, apply it with a brush to the wrong side of the gloves. The gloves being returned, are blown up, and put by in a warm place to dry.

Gants cosmétiques à la rose des champs.—The process is similar to the preceding. It consists in beating up the yellows of two fresh eggs with two spoonsful of oil of sweet almonds, and adding thereto an ½ oz. of rose water, and 2 drms. tincture of benzoin.

The gloves, turned wrong-side out, are coated as before.

They are worn during the night, and each pair should serve two weeks. The rest of the pomade answers for rubbing the hands.

CHAPTER XXXV.

OF PAINTS (ROUGES).

SINCE there are those who, wanting in natural color, are compelled to have recourse to art for the supply of the deficiency, it is requisite that the paint or rouge for this purpose be selected with care, both as to its ingredients and mode of composition. The perfumer, therefore, in manufacturing paints, should have these facts in view, and rely for reward upon excellence of quality.

The principal care in the compounding of rouges or paints should be, not to compromise the health of the customer by deleterious admixture or components.

In the theatre, and such places, rouges are very generally used by the actors.

The paints are of two kinds, *white* and *red*.

Of white paints.—These are of mineral composition, and consist of the *talc whites*, which, though not directly hurtful to the skin, produce but little illusion, and of the *lead whites*, very white and bril-

liant as coloring means, but extremely dangerous, because withering and irritating the skin, obstructing the insensible perspiration, and introducing a veritable poison through the pores into the animal economy, and particularly disagreeable by reason of their liability to become tarnished.

Thirdly, there is a white paint, which combines the beauty of the lead whites with the innocuousness of the talc whites, and this is the *zinc white.* Pure precipitated carbonate of lime is, however, in all respects, the preferable white paint.

Blanc de Circassie (Circassian white).—Make a slightly blued water with a little ultramarine, and dissolve therein a very small portion of powdered gum tragacanth. With this solution thin out a very finely-powdered Venetian talc, and of this paste form troches or lumps by pushing the mass through the barrel of a glass funnel, and catching the drops upon white paper. When these drops are dry, they are gently loosed and packed separately in handsomely ornamented paper boxes, or in elegant China pots, similar to those for the red paints, but in this case a little juice of lemon should be added to give consistence.

Fard de blanc de krems (alabaster white).—Re-

duce krems white to an impalpable powder, finely sieve a portion, and thoroughly incorporate it with a pomade, either of purified lard and spermaceti, or, as well, of mutton suet and white wax, or both in equal proportion. This pomade is slightly perfumed, and, thus prepared, is very handsome.

Fard blanc de bismuth (pearl white).—This graceful title denominates a mineral composition of bismuth. This bismuth paint, so much admired for its brilliant whiteness, is nothing more than a precipitate thrown down by a solution of chloride of sodium, and, chemically speaking, is the subchloride of bismuth before mentioned, when treating of raw material. This white is prepared either in troches or pomades, as the preceding, or diluted with oil of ben, forming then the *huile des sultanes*.

Pearl Powder.—This is pure precipitated carbonate of lime, made into paste with water, and moulded into forms.

Of red paints (rouges proper).—The rouges are, first, of the mineral; secondly, of the vegetable; and, thirdly, of the animal kingdom. They receive four forms: First, there is rouge in impalpable powder, put up in shallow pots, so as to admit of easy application. This powder is placed upon the cheeks with a plug of cambric or muslin.

Secondly, the rouge in pomade, and the most favorable and convenient form. It is applied with the end of the finger, and rubbed in till the disappearance of the grease.

Thirdly, the rouge *en crépons*. The *crépons* are pieces of silk gauze or crape, so twisted as to form a plug or bag in which is deposited the rouge. It serves for a long time, and is not inconvenient.

They are classified by the perfumers as *crépons de Strasbourg, crépons de la chine*, &c., but these titles signify nothing. They ought to be designated by their species; for instance, as *crépons* of carmine, &c.

Fourthly, these and the liquid rouges produce most illusion, and are most permanent; but they operate disadvantageously upon the skin, by reason of the acids which enter into their composition.

Preparation of powdered talc.—As all kinds of rouge combine with the pulverized talc, it is requisite to say something about the preparation of this material. There are two sorts in powder, the natural and the calcined talc; this last is whiter, but not as unctuous as the other, and consequently not so tenacious. The talc is rasped off with a file, then finely sieved, and afterwards bolted until the powder is impalpable.

Of the different shades of rouge.—To perfectly imitate nature, that tint must be used most nearly approximating to flesh color, let it either be a brunette or blonde skin; and, to satisfy the taste of consumers, prepare two shades of rouge, red and deep red, a very slight quantity of either of which, when thinned out with powder or pomades, furnishes a third shade, or pale red.

Other perfumers regulate their shades by numbers, the rouge being worked up with red liquor, either carmine or saucer red. It is important that the liquor should be of a deep and beautiful red.

No. 6, 4 oz. talc, and 6 drms. red liquor (*liqueur de rose*).

No. 8, 4 oz. talc, and 1 oz. red liquor.

" 12, 3½ oz. " " 1 oz. " "

" 18, 3 oz. " " 1 oz. " "

In giving the numbers, reference is had solely to the proportions.

Of vinegaretted rouges there are three shades, *lively red*, *medium red*, and *pale red*.

Rouge de bois de Brésil foncé (for the theatre). Take the red lake of Brazil wood, wash it with water, and then with the juice of lemon, to precipitate the coloring matter. If it is desired to prepare the rouge in pomade, mix a small quantity with a

... lard and white wax. ... the ... is wanted in powder, dry the ... matter, and thoroughly incor... talc. Finish as has been

... for theatres).—Take ... commingle it with a little ... deep porcelain plate ... and in the centre of ... with the end of the ... mixture, stirring all ... spatula. When the ... drops of oil, and a ... finish as before ... is very deep. ... talc 4½ oz., a

... oz., oil 7 ... thus pro... augmenting ... once at ... ten

... pomatum.—Take of ... same manner as ... and incorpo... pomade of

good quality. It can also be made into powder by admixture with talc.

Rouge extra fin du chine (on foil or paper).—This is one of the most beautiful and costly rouges. It is extracted from cochineal by dilute alcohol. The filtered tincture is thinned with a little solution of gum Arabic, and the whole boiled down to a thick liquor. This residue being spread upon paper or foil, is put aside in the shade, or a warm place, to dry. This rouge is detached from the cards with a moistened finger, and thus applied to the lips and cheeks. It is better, however, to dry the rouge upon plates or saucers, and in this way are made what are commonly called *pink saucers*.

Of vegetable rouge.—This rouge, much preferable to the others, is obtained from the carthamus flowers (*carthamus tinctorius*), vulgarly called bastard or wild saffron, owing to its saffron-yellow color blending into a red, the separation of which is as below explained and directed. The name of *rose orientale* is also given to this rouge, because the carthamus was first cultivated in the East.

Preparation of the carthamus.—Select that which is small leaved, place in clean bags, and submit them to the action of running water, continually beating them, and by this means separating the red coloring

matter from the yellow. Continue this process until the water ceases to run off colored. The appearance of the material is now changed into a beautiful red. Treat it with a solution of potash (4°), and, after twelve hours, decant. Again, treat the almost exhausted residue similarly with a solution of potash, marking only the degrees, and, after repose, decant as before. To these liquors, united, add gradually of lemon juice or pure citric acid, to perfect saturation. The red coloring matter precipitates by degrees, carrying with it some small portions of yellow coloring matter. This minute portion of yellow coloring matter is separated by the introduction of finely-carded cotton during the precipitation. These filaments being washed over with clear water, are treated with a solution of carb. soda, which takes up the red coloring matter in a state of purity. Before precipitating this pigment a second time by citric acid, some soft powdered talc should be laid in the bottom of the jar, for the purpose of absorbing the fine rouge as it becomes separated. It is finally rubbed up with olive oil, to make it smooth and greasy.

It is this precipitate, called *rose en tasse*, which meets with such extended and general sale.

Rouge de carthame, or *rouge végétal en poudre.*—This red can be managed *en poudre*, as follows, by placing, previous to the second precipitation of the rouge (as in the preceding), at the bottom of the vessel, either finely-powdered talc or French chalk, which, becoming charged with the coloring matter, is treated as above directed.

The mixture thus obtained is carefully rubbed up with some drops of olive oil, or ben oil. Upon the fineness of the talc, and the proportion of red, depend the beauty and price of such rouges.

Rouge vert d'Athenes.—The precipitate above obtained, spread whilst pure and damp upon cards' takes, in drying, a bronze color resembling that of Spanish flies, but which passes into a beautiful red as soon as moistened. It is this preparation to which the above title applies.

Rouge des Circassiennes, liquide.—This is prepared by dissolving purified carthamus red in a mixture of spirits of wine and dilute acetic acid.

OF VINEGARETTED PAINTS, OR ROUGES.

Vinaigre de fard.

Powdered cochineal	3 drms.
Handsome lake, in powder	3 oz.
Alcohol	6 oz.
Distilled lavender vinegar	1 lb.

After ten days' infusion, and frequent stirring during the interval, decant and filter.

Vinaigre de rouge.—The constituents of this article render it very costly. It is called a vinegar, but without good reason. Being of mild perfume, but slightly acid, the use of this rouge should be as extensive as it is convenient.

Here is its composition:—

Carmine, best	8 oz.
Powdered cochineal	4 oz.
Boil together with	
Rose water	12 pints.
Spirit of roses	8 pints.
And add, to develop the color,	
Cream of tartar	2 oz.
Alum	1 oz.

The liquor indicated by the above receipt forms the first shade of red; the residue, to which is added a like quantity of rose water and spirit, makes the second; and, finally, the same residuum, already boiled twice, still furnishes, to a quantity of water and spirit of roses equal to the above, the third shade.

Rouge liquide de SOPHIE GARBET.—This celebrated rouge so identifies itself with the skin, it is

said, that it is not removed even when the perspiration is wiped off with a handkerchief.

Alcohol 36°	4 oz.
Distilled water	2 oz.
Carmine, best	20 grs.
Oxalic acid	6 grs.
Alum	6 grs.
Mecca balsam	10 grs.
Ammonia	10 grs.

Mix the alcohol and water, and add the oxalic acid, alum, and balsam, shake the bottle well, and leave it in a warm place for five or six hours, to facilitate the solution of the balsam, then filter.

Rub the carmine in a mortar, with the ammonia, and put the whole into a bottle, and, after fifteen minutes' repose, decant.

This is packed in elegant glass jugs or pots, accompanied with labels directing its application, gently, to the cheeks with a camel's-hair brush dipped into the well-shaken bottle. In this way an elegant, nature-like coloring is imitated.

Vinaigre de Venus.—Take

Powdered cochineal	2 drms.
Powdered lake	3 drms.
Alcohol	6 drms.
Distilled lavender vinegar	1 lb.

[illegible]

[illegible] — [illegible]

[illegible] —Mix [illegible] sit [illegible], and [illegible] women [illegible]. This answer [illegible] the veins.

[illegible] dyeing the hair.— [illegible] gradually [illegible] oz. of [illegible] in a sand-bath until the [illegible]. That done, add [illegible] oz. of [illegible] aqua-fortis, and when the [illegible] pour in a half pint of distilled water [illegible] a mild heat, and when the whole [illegible] and bottle in glass-stoppered flagons. The use of this water is dangerous; not so, however, with the following soap.

Soap for dyeing black the hair and eyebrows.—

According to Fontinelle, this soap is composed of 2 oz. mutton suet, 1 oz. pitch, made liquid, ½ oz. *pierre noire* (ampelites, or black crayon), and as much *labdanum* and *varnish*. To these is added a *quantum sufficit* of lye made from the ashes of the willow. Perfume with a little amber, vanilla, or musk.

Instantaneous hair-dye.—This consists of two mixtures in separate bottles; one is a solution of one part of nitrate of silver in eight parts of water, and the other a weak solution of hydrosulphuret of ammonium. Its influence is effected by moistening the hair, first with the silver solution, and immediately afterwards with the other. The color of the hair changes immediately into a black.

Hanman's hair-dye.

Litharge	275 grs.
Quicklime	1875 grs.
Starch	930 grs.

Reduce to a fine powder. This powder is made into a paste with warm water, and applied to the hair with the fingers, and well rubbed on. It is then covered with a moist cloth which in several hours can be removed. The dry powder may afterwards be separated from the hair, the usual gloss of which can be restored by a little oil. This must

CHAPTER XXXVI.

OF DENTIFRICES.

THIS branch of perfumery is at the present day one of much interest and importance. Both chemists and physicians have made common cause with the perfumer in perfecting the composition of dentifrices.

The dentifrices are divided into elixirs or odontalgic waters, powders, pastes, and prepared brushes. We will treat of each division separately.

1st. AQUEOUS DENTIFRICES.

Eau dentifrice.—Take

Angelica root	½ lb.
Anise seed	½ lb.
Cinnamon	2 oz.
Nutmeg	2 oz.
Cloves	2 oz.

Bruise these substances, introduce them into a matrass, add 16 lbs. of alcohol 25° B., and 3 oz. essence of English mint, and macerate the whole for eight days. At the end of this time, distil over a water-bath nearly to dryness.

It is put up in handsome bottles of varied shapes and sizes.

The residue, burned to ashes, is used by Dr. O'Méara as a powder dentifrice. This powder, slightly perfumed, the doctor says, removes the tartar from the teeth and preserves them in a state of remarkable whiteness.

An improvement on the above.—When the odontalgic water has been filtered, after the maceration, add 12 drops of creosote to every ounce, and substitute essences of anise and lemon, in the same proportions, for the essences of mint and bergamot.

The red color given by the alkanet can be changed into a green, by substituting therefor the leaves of some inert fresh plant.

This water is put up in glass-stoppered flagons.

Poudre dentifrice végétale, of DELESTRE, *Paris.*—The enamel bears the same relation to the tooth that the skin does to the organization; the teeth thrive by concentric and eccentric growth, and when the enamel does not enjoy vitality, either because of decay in the cavities of the teeth, or an abnormal state of health, this vitality repairs to one point or another: in pregnancy, life inclines to the uterus; in gastritis, the diseases of the liver, mesentery, and breast, vitality concentrates in the dis-

eased parts, while the other sound portions remain, as it were, stationary. As regards the diseases of the teeth, some are hereditary, and, like all transmitted affections, are susceptible of modification;—the others result from decay of the cavities, and may serve both as the diagnosis of the disease and for determining its epoch.

There are eight species of disease; four are concentric, viz., the arrest of development, the rusty state of the enamel, the dry caries, and the ulcerated caries. These diseases proceed from the centre to the circumference, and originate in default of vitality and harmony.

The other four kinds are eccentric; they are the humid caries, the rotten caries, the perforate, and the scaly caries.

These last, the most destructive, arise from external causes, such as acidity of the saliva, the cold or warm state of the gums, and the slovenliness which permits particles of vegetable or animal matter to remain between the teeth. These becoming decomposed, acquire acid properties, and produce upon the enamel a deleterious effect.

When the diseased state of the gums, and their want of vitality, produce a loosening of the teeth, the secretion which results forms the tartar; and

the entrance between the teeth and gums of foreign matters, thus facilitated, engenders inflammation, which attacks the osseous portion of the teeth and destroys it.

All these considerations have had their influence in the composition of this dentifrice, which consists in part of vegetable tonics, acting upon the enamel and the osseous matter, and of substances neutralizing the acidity of the saliva, and anti-scorbutic in property.

The advantage experienced in the use of a dentifrice thus prepared, over elixirs, is, that the foreign bodies remaining between the teeth are carried away or removed by a brush, and that the diseased or carious parts, being operated on by friction, the entrance of the remedy is thus facilitated, so that, where the enamel is deficient, the cure will be more readily accomplished.

℞.—Magnesia	12.00
Red bark	12.00
Rhatany in powder	2.50
Tobacco, natural and in leaf	2.50
Flocculent soot	2.50
Calcined alum	0.65
Powdered pyrethrum	0.65

The whole passed through a fine silk sieve, is

rubbed between a muller and slab, and perfumed with essences of mint and roses.

If inflammation should prevent the use of this dentifrice, first heal it by the use of emollients, and, when it has ceased, then apply the powder.

Eau balsamique de Jackson, by MILLERET, *Paris.*

Take orange and lemon peel	2 oz.
Angelica root	2 oz.
Rasped guaiacum	6 oz.
Pyrethrum	6 oz.
Tolu balsam	2 oz.
Benzoin	2 oz.
Cinnamon	½ oz.
Vanilla	½ oz.
Myrrh	½ oz.
Pomegranate rind	½ oz.
Alcohol 32° B.	2 quarts.

Bruise the whole, and macerate in the alcohol for eight or ten days, in a close vessel and warm place, stirring frequently during the interval. At the end of this time, distil over a water-bath, and to the liquor which comes off, add

Alcohol 30° B.	1 pint
Tr. cochlearia	½ "
Tr. mint	½ "

Color the whole with tincture of alkanet or cochineal.

Properties.—The components of this water render it excellent for strengthening and healing soft, swollen, and bleeding gums. By the pyrethrum, it is odontalgic; by the vanilla, myrrh, and benzoin, which it holds in solution, it is balsamic, and purifies the breath of all bad odor, arising from decayed teeth, foul stomach, or tobacco-smoke.

Rinse the mouth daily, after breakfast and dinner, with a teaspoonful dissolved in a tumbler of water.

For the morning toilet, a soft brush should be used, and the teeth rubbed with it after having dipped it into the water. Finish by gargling, and retain the last mouthful for some minutes before ejecting it. This balsamic water is also excellent in the bath.

Composition hygiènique de toilette, by DUPILLE, HOMER, and VAILLANT, *Paris*.—Take 1 lb. of gentian root, and 1 lb. red bark; macerate at a temperature of 60° F. for nine days in wine lees; and at the end of this time, strain and separate the barks from the wine lees, and prepare for distillation as follows:—

Place the wine lees at the bottom of the still,

and about 11 inches above it arrange a wicker diaphragm, upon which put the gentian and red bark free of contact with the liquid. Lute, apply heat, and run off the liquor. The extract thus obtained, mixed with equal parts of spirits of wine diluted to 24° B., forms a most excellent water for the teeth.

Pâte mineral, by M. BERTEAUX DE CHAILLEVOIX, Paris.—Take

Absolute alcohol	7 drms.
Sulphuric acid	3 drms.
Ammoniæ aqua	4 scruples.

Mix with finely powdered asbestos, to a consistence equalling a common honey paste. Put up in ground-stoppered pots.

Elixir de rose.—Take

Alcohol	1½ lbs.
Cloves	1 drm.
Cinnamon	3 oz.
Ginger	2 oz.
Essence of Portugal	1 drm.
" " peppermint	1 oz.
" " rose dissolved in 1 oz. water	15 grains.

Mix the whole together, infuse for two weeks in a close vessel, and then filter.

Elixir de Lafandimère.

Rasped guaiacum	½ oz.
Pyrethrum	1 drm.
Nutmegs	1 drm.
Cloves	½ oz.
Oil of rosemary	10 drops.
" bergamot	4 drops.

After three or four weeks' maceration, filter and put up in glass-stoppered bottles. The gums are bathed and rinsed with a teaspoonful diffused in a tumbler of water.

Eau stomophèlie, of AUBRIL.—This is a most excellent liquid for strengthening the gums, preserving the teeth, and cleansing the mouth. Its preparation is easy, being merely an infusion of red bark in alcohol, to which is added a little tincture of alkanet, essence of cloves, and essence of mint.

Esprit de pyrèthre (simple).—Take

Pulverized pyrethrum root	1 lb.
Alcohol 22° B.	4 lb.

Esprit de pyrèthre, composée (compound).—Take

Pulverized cinnamon	4 scruples.
" coriander	19 drms.
" vanilla	19 drms.
" clove	18 grs.

into the liquid, and after several days' maceration, distil over a water-bath, and draw off 2 quarts.

2d. DENTIFRICES IN POWDER.—The antiseptic properties of charcoal make it a peculiarly proper basis of the best dentifrices.

1*st Powder.*

Impalpably pulverized charcoal	1 oz.
Sugar	1 oz.
Vol. oil of cloves	3 drops.

Make into a homogeneous powder under a muller.

2*d Powder.*

Impalpably pulverized charcoal	1 oz.
Red bark	1 oz.
Pulverized sugar	4 drms.
Vol. oil of mint	4 drops.

3*d Powder.*

Impalpably pulverized charcoal	1 oz.
Sulphate of quinine	2 grs.
Magnesia	2 grs.

Perfume with some drops of rose water, or essence of mint, cinnamon, or with powdered rose leaves, or orris root.

4*th Powder.*

Impalpably pulverized charcoal	1 oz.
Cream of tartar	2 drms.
Yellow bark (cinchona)	1 drm.

Rock candy	½ oz.
Oil of cloves	8 drops.

Mix well these powders, and after incorporating the oil of cloves, sieve.

Poudre de Ceylon, by MAYER, Paris.

Cream of tartar	32 oz.
Calcined alum	6 oz.
Carbonate of magnesia	12 oz.
Rock candy	12 oz.
Pulverized cochineal	2½ oz.
Essence of cinnamon	3 oz.
" cloves	2½ oz.
" mint (English)	1½ oz.

All these materials being finely powdered, are mixed together and sifted, and the whole rebolted through silk. The cream of tartar should previously be dried by a moderate heat.

Poudre dentifrice of M. MAURY, *Dentist.*

Red bark	2 oz.
Magnesia	½ lb.
Cochineal	1½ oz.
Calcined alum	1 oz.
Cream of tartar	1 lb.
Essential oil of mint	5 drms.
" " cinnamon	3 drms.
Esprit de rose	1 drm.

Powder separately the first five materials; rub up the alum with the cochineal and add the cream of tartar and bark. Put the essences into a bottle with the magnesia, and when they are absorbed, add the first powders, and after thoroughly incorporating the whole, pass through a very fine sieve of silk.

This powder cleanses the teeth without injury to the enamel, strengthens the gums, gives them a healthy red color, and the mouth an agreeable freshness. It is applied by being rubbed on with a soft brush two or three times a week. For children, once a week is sufficient. As this is soluble, care must be taken not to moisten more than is wanted for present use, and to keep the box containing it, in a dry place.

Poudre détersive dentifrice.

Willow charcoal	8 oz.
Calasaya bark	4 oz.
White sugar	8 oz.
Essential oil of mint	3 drms.
" " cinnamon	2 drms.
Spirits of amber	½ drm.

Reduce the whole to an impalpable powder, mix well and sieve.

Poudre dentifrice orientale.

Dragon's blood	8 oz.
Cream of tartar	1 oz.
Orris root	1 oz.
Cinnamon	4 drms.
Cloves	2 drms.

Poudre dentifrice à la rose.—Take

Cream of tartar	1½ lbs.
Calcined alum	4 oz.
Cochineal	2 oz.
Cloves	4 oz.
Cinnamon	4 oz.
Rhodium wood	1 oz.
Essence of rose	2 or 3 drops.

Powder the whole, and pass through a very fine sieve.

3d. OF PASTES.

Opiat dentifrice de charbon.

Charcoal, washed and fine	1 oz.
White honey	1 oz.
Vanilla candy	1 oz.
Essence of rose or mint	4 drops.

Mix the whole into a paste, and use as is customary. This preparation whitens the teeth, purifies the mouth, and after several applications strengthens the gums.

To render the paste more efficacious, add 4 drms. of powdered calasaya bark.

Opiat dentifrice rouge, ou de corail.—This is inferior to the preceding, though handsomer in appearance.

Pulverized red coral	½ lb.
" cinnamon	2 oz.
" cochineal	1 oz.
" alum	3 drms.
Best honey	20 oz.
Water	1 oz.

Rub up in a mortar the cochineal, water, and alum; macerate for twenty-four hours, and then add the honey, cinnamon, and coral; let repose for two days, stir up and perfume with some drops of oil of cloves, roses, mint, &c., according to taste.

Opiat dentifrice blanc, liquide.

Purified white honey	1 lb.
Syrup of mint	½ lb.
Powdered orris root	2 oz.
Sal ammoniac	2 oz.
Cream of tartar	2 oz.

Mix the whole in a marble mortar, rubbing in afterwards

Tincture of cinnamon	½ oz.
" " cloves	½ oz.

plicated. The channel lined with a piece of linen cloth, where the cock is lodged, has a rim of about an inch, upon which is cut a thread for the reception of the screw which fixes the stopple. The painters' brushes, similar in form to the common kind, are traversed by a channel resembling that in the preceding, with this difference, that as there is no necessity for a stopple, so, consequently, a screw is superfluous. This brush, the hollow handle of which is divided near the cock, gives a general idea of their advantageous use. In the more costly brushes, the arrangement is somewhat different, for the screw, the object of which is the cleansing of the brushes, can be dispensed with, provided that, with a smaller brush, the interior of the handle and channel can be well freed of its grease. The brush for painters' use, may have in the handle a pump-like syringe, and then it becomes very convenient for whitening ceilings. The application of the cock is not the only improvement in brush-making; there is also an additional one, the elastic pump; and those brushes mounted with it have a spiral spring, which presses the stopple under the tube in the interior of the instrument, a kind of corking or stopping which in nowise changes the form of the handle of the apparatus.

Moreover, the use of a spring may be made so as to dispense with the cock and appendage, which somewhat deform the arrangement of the brush. It is a purse spring, with a catch upon the side of the plate, or on the plate itself, serving as a covering plate for the cullender or strainer.

The cock is also substituted by an inward stoppage of the conduit-pipe, by introducing a tap either at the end of the handle or on the opposite side.

The hair-brushes are bristled upon either surface, forming, as it were, two brushes in one, the first to serve for cleaning, the other for greasing the hair.

These brushes are made of hog's bristles, and their price is according to the style of their finish.

Brushes of the marshmallow roots.—Take marshmallow root, straight and rather large, and cut it into lengths of five inches; unravel the two ends, and boil them in water with the roots of pyrethrum, alkanet, and cinnamon. When they are well boiled and tender, withdraw them carefully to prevent breaking, and soak for twenty-four hours in brandy, and after this dry them in a stove or warm room. When they are to be used, they are soaked in warm water.

Brushes of horseradish root (antiscorbutic).—These are made similarly to the preceding, except

that tincture of cloves is to be substituted for plain brandy, for macerating the root, which is afterward laid over with gum tragacanth, and this gum, when dry, again covered with several coats of compound tincture of benzoin.

Brushes of Luzerne root.—Take of Luzerne root, of convenient size, and stripped of the bark, and dry it slowly, and when the roots are well dried, cut them into small pieces of three inches length, and upon each end thereof strike lightly with a hammer; the fibres are thus detached, and form a brush. Infuse these brushes for a day or two in alcohol colored with alkanet, then withdraw and dry them, and when they are thoroughly dried, burnish the wood with an ivory or bone instrument. They are then put up in parcels for market.

The use of this brush is favorable to delicate gums.

Brushes of liquorice root.—Select such root as is sound and straight, divide it into lengths of four or five inches, and, after perfect desiccation by a mild heat, rasp off their outer skin or covering, in order to color them with the marcs remaining from the *vinaigre rouge.* It suffices to boil these marcs in water with a little alkanet, and, when the decoction has slightly cooled and been strained, macerate the

liquorice roots therein for four or five hours. Dry them anew, and coat over several times with compound spirit of pyrethrum.

Fine sponges, with handles (for cleaning the teeth).—These sponges are infinitely preferable to the soft badger-brushes generally used for rubbing the teeth; they are even better than the root-brushes, more elastic, softer, and perfectly cleanse the upper circumference of the teeth without injury to the gums; but they are very inconvenient if held by the fingers, and should therefore have handles of wood or ivory. An article of this kind, handsomely got up, would meet with sure sale, as these sponges, well prepared, are a most useful instrument for cleaning the teeth.

Choose the finest sponge, and give the brushes the size and form of a large pigeon's egg, and, after having soaked them for some hours in tincture of guaiac or other odontalgic liquor, treat them with the marc of *vinaigre rouge*, as directed for the root-brushes.

CHAPTER XXXVII.

OF DISTILLED WATERS.

THIS chapter treats of the distilled waters of flowers, as the basis and principle of the essences.

The essential oils were formerly called *essences*, but this designation is not limited to compositions with their bases of alcohol, which resemble the tinctures. It is also applied to many combinations of perfumes or *eaux odorantes* (fragrant waters). Nevertheless, among the perfumers, the name of essence is applied to the essential oils; but, to prevent confusion between the *essences* (compound fragrant waters) and the *essences* (essential oils), in this work the word *composées* (Fr.) or *compound* (Eng.) in each instance, when writing of the former, will be used.

List of essences usually employed in perfumery.

Essence of rose,	Essence of *petit grain*,
" " neroli, fine and superfine,	" " bergamot,
" " cloves,	" " lemon peel,
	" " " distilled,

Essence of Seville orange,	Ess. of limette,
" " cedrat,	" " English mint,
" " Portugal,	" " fennel seed,
" " lavender,	" " caraway,
" " " fine,	" " amber,
" " yellow sand-	" " musk,
" " ers,	" " vanilla,
" " rosemary,	" " thyme,
" " serpolet,	" " mace,
" " cinnamon,	" " anise,
" " myrtle,	" " rhodium.

Unfortunately, these essences are rarely found in commerce unadulterated; for instance, those of bergamot and lemon, in which there is constantly more or less essence of Portugal, are also very frequently falsified by large admixtures of oil or spirit.

As all these products mentioned in this chapter are the result of distillation, we follow with some directions as to the proper mode of conducting that operation.*

Conditions requisite to insure a good distillation. —Select first of all fresh flowers, recently pulled, and after the rising of the sun. Operate upon

* For further particulars, see *Encyclopædia of Chemistry*, p. 595, and *Mohr, Redwood, and Procter's Pharmacy*, p. 348.

large quantities. A greater, and proportionably better product is thus obtained.

Distil rapidly.

Divide or bruise the materials, in order to facilitate the elimination of the oil therein contained.

Take of water only sufficient to prevent the plant being scorched, for a greater quantity will occasion loss of oil by retaining a portion in solution.

For the oils which are heavier than water, saturate that which is put into the still with salt, in order to augment its density, and thus compel a higher heat for its ebullition. Ordinary water boils at 212° F., the saline water at 219.2° F.

Upon substances which are weak, or part with their oily constituent less readily, cohobate with the first distilled water several times, and, in each instance, upon fresh materials.

In the first distillation, use that water which has already been once distilled with the same substance, and consequently become tinctured with its essential oil.

For the oils naturally fluid, it is necessary that the water around the refrigerant should be constantly replaced by fresh; but with those oils which easily concrete, as, for instance, the oils of anise and rose, it should be kept at 86° to 104° F.

Generally speaking, for the distillation of vola-

tile oils, it is preferable to use short-jointed conduits or cooling pipes, for it is much easier to remove dirt and adhering oil from them than from crooked worms.

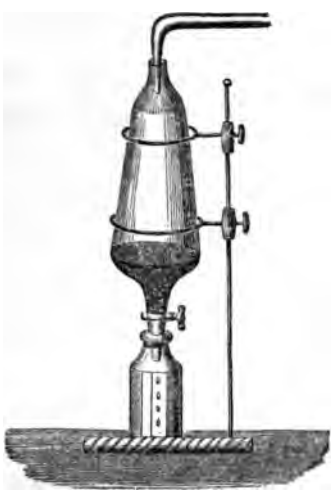
The process of distilling the plants, flowers, leaves, woods, barks, aromatic seeds, &c., should be conducted after these prescribed rules. It is readily seen that the volatile oils, being disengaged by the heat, come over with the watery vapors, and with them are condensed in the refrigerant, and pass into the receiver.

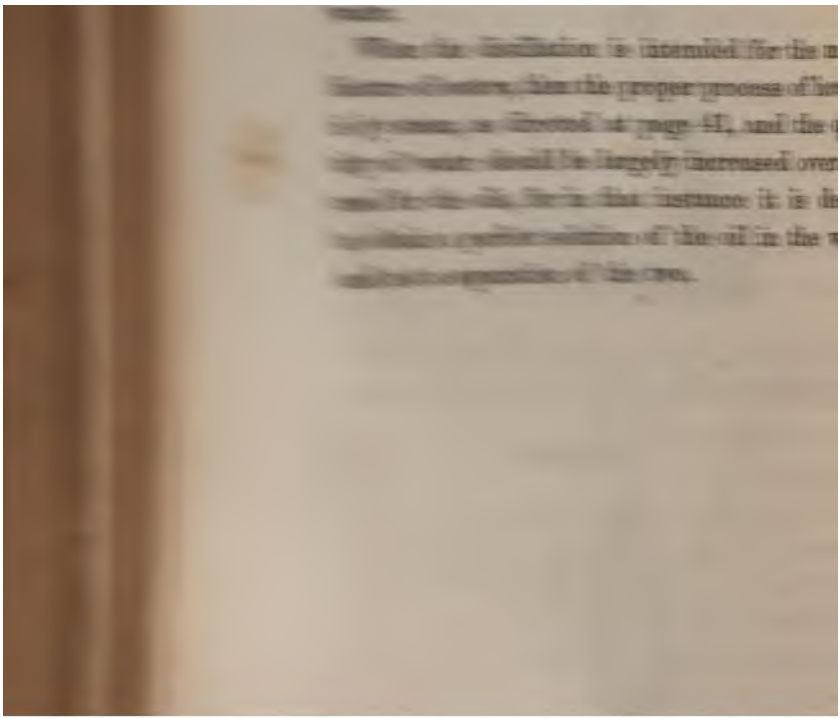
If the quantity of water is too much in proportion to the amount of material to be distilled, then a portion of the oil remains dissolved therein, and does not separate. The same result occurs when the oily constituent is in limited quantity. In all such cases it is necessary to cohobate the first distilled liquor over new material. As the volatilization of the water is coincident with that of the oil, the two must be received together, as they condense in a vessel, which will admit of the ready separation of them by reason of their different specific gravities. Fig. 28 represents the Florentine receiver, which is used for the lighter oils. The oil accumulating at *a b*, retains its supernatant position throughout the distillation, while the water beneath flows out at *c* as fast as it runs from the still. When

Fig. 28.

the oil is denser than the water, a different arrangement, as shown at Fig. 29, is required. The denser

Fig. 29.





CHAPTER XXXVIII.

ARTIFICIAL ESSENTIAL OILS.

THE artificial production of aromatic essences is founded upon the hypothesis that the peculiar odor of certain fruits is due to the ethers which they contain. Their manufacture involves some chemical skill, and delicate manipulation; but being very applicable to perfumery, and, in a measure, to confectionery, they are largely manufactured in the laboratories.

Pear Oil.—This essence, which imitates the aroma of the Jargonelle pear, is an alcoholic solution of pure acetate of amylic oxide.

Apple Oil.—The valerianate of amylic oxide.

Pine Apple Oil.—An alcoholic solution of butyric ether.

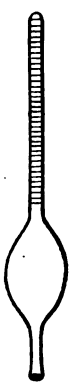
Bitter Almond Oil.—This is the so-called *Essence of Mirbane*, and is nothing more than nitrobenzole.

CHAPTER XXXIX.

OF DISTILLED WATERS FROM FLOWERS.

THE next in order would be a remark or two upon alcohol, the principal basis of the operations of the perfumer, but it is useless to enter into detail upon this article, for, as its distillation is on a large scale, and is a separate branch of manufacture, it will be more advantageous to purchase than to make it.

Fig. 30.



It is a great solvent of essential oils, and is also used for the preparation of tinctures and compound essences.

As alcohol is sold by measure, and as the commercial articles frequently differ in percentage of *absolute* alcohol, it is well to have some guide to direct both in regard to its purchase and use. This convenience is afforded by a little glass instrument, called a *hydrometer* (Baumé's preferred), from two Greek words, ὑδωρ, *water*, and μετρον, *measure*. This apparatus determines the strength of spirituous

liquors, these being inversely as their specific gravities.

Table showing the Specific Gravity of Liquids corresponding with the degrees of the above instrument.

LIQUIDS DENSER THAN WATER.						LESS DENSE THAN WATER.			
Degrees.	Specific gravity.	Degrees.	Specific gravity.	Degrees.	Specific gravity.	Degrees.	Specific gravity.	Degrees.	Specific gravity.
0	1.0000	26	1.2063	52	1.5200	10	1.0000	36	0.8488
1	1.0066	27	1.2160	53	1.5353	11	0.9932	37	0.8439
2	1.0133	28	1.2258	54	1.5510	12	0.9865	38	0.8391
3	1.0201	29	1.2358	55	1.5671	13	0.9799	39	0.8343
4	1.0270	30	1.2459	56	1.5833	14	0.9733	40	0.8295
5	1.0340	31	1.2562	57	1.6000	15	0.9669	41	0.8249
6	1.0411	32	1.2667	58	1.6170	16	0.9605	42	0.8202
7	1.0483	33	1.2773	59	1.6344	17	0.9542	43	0.8156
8	1.0556	34	1.2881	60	1.6522	18	0.9480	44	0.8111
9	1.0630	35	1.2992	61	1.6705	19	0.9420	45	0.8066
10	1.0704	36	1.3103	62	1.6889	20	0.9359	46	0.8022
11	1.0780	37	1.3217	63	1.7079	21	0.9300	47	0.7978
12	1.0857	38	1.3333	64	1.7273	22	0.9241	48	0.7935
13	1.0935	39	1.3451	65	1.7471	23	0.9183	49	0.7892
14	1.1014	40	1.3571	66	1.7674	24	0.9125	50	0.7849
15	1.1095	41	1.3694	67	1.7882	25	0.9068	51	0.7807
16	1.1176	42	1.3818	68	1.8095	26	0.9012	52	0.7766
17	1.1259	43	1.3945	69	1.8313	27	0.8957	53	0.7725
18	1.1343	44	1.4074	70	1.8537	28	0.8902	54	0.7684
19	1.1428	45	1.4206	71	1.8765	29	0.8848	55	0.7643
20	1.1515	46	1.4339	72	1.9000	30	0.8795	56	0.7604
21	1.1603	47	1.4476	73	1.9241	31	0.8742	57	0.7565
22	1.1692	48	1.4615	74	1.9487	32	0.8690	58	0.7526
23	1.1783	49	1.4758	75	1.9740	33	0.8639	59	0.7487
24	1.1875	50	1.4902	76	2.0000	34	0.8588	60	0.7449
25	1.1968	51	1.4951			35	0.8538	61	0.7411

Lowitz's Table, showing the Quantity of Absolute Alcohol in Spirits of different Specific Gravities.

100 parts.		Specific gravity.	100 parts.		Specific gravity.	100 parts.		Specific gravity.
Alcohol.	Water.	At 60° F.	Alcohol.	Water.	At 60° F.	Alcohol.	Water.	At 60° F.
100	0	0.796	66	34	0.881	32	68	0.955
99	1	0.798	65	35	0.883	31	69	.957
98	2	0.801	64	36	0.886	30	70	.958
97	3	0.804	63	37	0.889	29	71	.960
96	4	0.807	62	38	0.891	28	72	.962
95	5	0.809	61	39	0.893	27	73	.063
94	6	0.812	60	40	0.896	26	74	.965
93	7	0.815	59	41	0.898	25	75	.967
92	8	0.817	58	42	0.900	24	76	.968
91	9	0.820	57	43	0.902	23	77	.970
90	10	0.822	56	44	0.904	22	78	.972
89	11	0.825	55	45	0.906	21	79	.973
88	12	0.827	54	46	0.908	20	80	.974
87	13	0.830	53	47	0.910	19	81	.975
86	14	0.832	52	48	0.912	18	82	.977
85	15	0.835	51	49	0.915	17	83	.978
84	16	0.838	50	50	0.917	16	84	.979
83	17	0.840	49	51	0.920	15	85	.981
82	18	0.843	48	52	0.922	14	86	.982
81	19	0.846	47	53	0.924	13	87	.984
80	20	0.848	46	54	0.926	12	88	.986
79	21	0.851	45	55	0.928	11	89	.987
78	22	0.853	44	56	0.930	10	90	.988
77	23	0.855	43	57	0.933	9	91	.989
76	24	0.857	42	58	0.935	8	92	.990
75	25	0.860	41	59	0.937	7	93	.991
74	26	0.863	40	60	0.939	6	94	.992
73	27	0.865	39	61	0.941	5	95	
72	28	0.867	38	62	0.943	4	96	
71	29	0.870	37	63	0.945	3	97	
70	30	0.872	36	64	0.947	2	98	
69	31	0.874	35	65	0.949	1	99	
68	32	0.875	34	66	0.951	0	100	
67	33	0.879	33	67	0.953			

We now come to speak of what the head of the chapter announces.

Eau de fleurs d'oranger, single, double, treble, quadruple (orange-flower waters).

Take of orange flowers, free from stems, 12 lbs.

Pure water 36 lbs.

Bring the water, in a still, nearly to ebullition, and then carefully add the flowers; lute on the head, and distil. If 2 lbs. of water to every 1 lb. of flowers are run off, then the product is named *double orange-flower water;* if 3 lbs. of liquid to 2 of flowers, it is called *triple;* and, finally, it is named quadruple when but 1 lb. of water is drawn over 1 lb. flowers.

The single orange-flower water is the *double* diluted with its own bulk of distilled water.

The perfumers in Greece prepare another orange-flower water from the stems of the flowers and the fresh leaves, to which they add of neroli 1 drachm to every 12 lbs of water. Thus obtained, it is more bitter, and less pleasant, but is considered as a good stomachic and vermifuge cordial. If the fresh flowers are not at hand, those will answer which are salted and imported from Spain and Portugal, provided their age does not exceed four

months. It is better that the water in the still should be boiling when these flowers are added.

Eau de rose (rose water), single, double, treble, quadruple.

Take

Fresh rose leaves	15 lbs.
Water	40 lbs.

To obtain this water very strong, and surcharged with oil of rose, redistil the first liquid over fresh flowers, or run off less water from the still. Thus, as with the orange flowers, are obtained the single, double, treble, and quadruple rose waters.

When salted rose leaves are used, they are washed with boiling water, and immersed therein for a day or two before being distilled.

Eau de giroflée (gillyflower).—This is obtained by the process above given.

Eau d'acacia, as above.

Eau de lys (lily).—Repeat the preceding manipulations.

Eau de muguet (lily of the valley).—The process for this is similar to that for rose water. To increase the odor, a part of acacia can be added.

Eau d'anis.—Take

Dry anise seeds	5 lbs.
Water	20 lbs.

Distil off 10 lbs. of water.

Eau de fenouil, de coriander, de laurier (fennel, coriander, and laurel waters).—These waters are obtained in the same way as the anise water.

Eaux de zestes, de citron, d'oranger amère, &c. (waters of lemon, and bitter orange peel).—These are distilled in the same proportions and same manner as the afore mentioned.

Eau de lavande (lavender water).—This is entirely different from the preceding waters. It is a solution of essential oil of lavender in alcohol, with a little of storax in tears, and sometimes, also, a little Mecca balsam. When used, a few drops are poured into water, which thus becomes milky, and acquires the taste and odor of the lavender.

CHAPTER XL.

OF ESSENTIAL OILS.

FOURCROY, the distinguished chemist, divided these oils into six species, but his classification has received but little attention in perfumery. Here they are distinguished as *sweet smelling* and *aromatic*.

Oil of jasmine.—Into a stoneware vessel put a sufficient quantity of flowers, add thereto enough of oil of ben to cover them, and macerate for two or three weeks, exposing the well-covered vessel to the sun. At the end of this time, strain and express lightly; repeat the same operation with new flowers, and after two weeks' infusion, again strain. After a third repetition, an oil is obtained, fragrant with the odor of jasmine. This flower cannot well be distilled.

A similar result ensues from the use of pure and sweet lard, or lard oil instead of ben oil.

Oil of tuberose, of lily.—Take 3 parts by weight of good olive oil, or, better, of oil of ben, and one

part of tuberose flowers, and infuse the whole in a stoneware vessel. At the end of four days, strain and express through a linen cloth;—repeat this operation with fresh flowers, and in two days again press and filter the oil obtained. It is very fragrant, and is separated from the adherent water of vegetation as follows: Pour it into a glass bottle, the cork of which is perforated in the centre for the reception of a quill barrel. Reverse the bottle, and the water being heavier than the oil, descends, and when the bottle is a little inclined, runs out through the quill, the oil still remaining. Operate with the oil of lily in a similar manner.

Oil of rose. Attar of rose.—As this oil is almost exclusively imported, and at a much lower price than it can be here manufactured for, it is unnecessary to give the mode of making it. The attar of rose is crystalline in appearance, being formed of numerous brilliant needle-shaped flakes, which liquefy by the warmth of the hand. When pure, its odor is very strong, and when diluted with other oils, very mild. This oil is soluble in water to a certain extent, communicating to it its odor, and thus forming a rose water, double or quadruple, according to the quantity of oil taken up by it. It is entirely soluble in alcohol, a boiling solution on

cooling, dropping it in division—the one part a liquid, and soluble in spirits of wine, the other in brilliant plates, and insoluble. These two oils are very fragrant.

The finest attar of roses is manufactured at Ghazedpore, in India.

Essence of orange-flowers, or neroli.—This essence is made when the flowers are fresh and in season, and only those leaves are used which are white and thick, and compose the corona. The flowers are put into the still, alternated by additions of salt and water, the head is luted on, and the whole distilled over a water-bath by a heat, mild at first, until the flowers are soaked, and then increased, taking care, however, that it is not great enough to scorch the flowers. Keep the refrigerant cooled, and the neroli runs through simultaneously with double orange-flower water.

This oily quintessence (neroli) swims upon the surface of the water, and at first is of a green tint, but after some days becomes reddish. By reversing the bottle containing the mixture, the water can be separated by allowing it to run out through a glass tube.

Thus are obtained at the same time, good essence of neroli and excellent orange-flower water.

By the use of the Florentine receiver, and its addenda, before mentioned, the separation of the oil from the water is effected more conveniently and systematically than in the mode above directed.

The general rule for the distillation of orange-flowers, is this: when the essence is wanted, the usual process of cohobating the first distilled waters over fresh flowers must be adhered to, but when only waters of good quality are desired, then draw off the fifth of the liquor in the still.

Essence de petit grain.—There is also prepared an inferior neroli known by this title, and it is made precisely as the above, but less carefully, the flower and flowerets being used in the rough, and without being previously picked and assorted. It is with this essence and the following, that what is called best is sometimes sophisticated. The leaves and small fruit, and their peels, are also used for making a still more inferior essence, which is not without merit, for, though somewhat bitter, it is yet useful in perfumery.

Oil of mint.—Take the mint free from stems, and distil it with two and a half times its weight of water; heat briskly, and, when water in quantity equalling that of the mint has come over, remove the plant from the still, and replace with fresh, and

pour over it the liquid once distilled. Continue the distillation, and catch the product in a Florentine receiver.

Oils of lavender and of rosemary.—Extract these oils by the mode before mentioned.

Oils of thyme and serpolet (wild thyme).—To obtain an oil of good quality, it is requisite that the plant be well flowered. Use those flowers which are dry, and which have been gathered in a warm season.

Take 4 quarts of water to 2 lbs. flowers, and when the still is full, lute on the head and keep up a slight fire for six hours or less. Do not let the heat be greater than the hand can bear when placed upon the alembic. After this interval, let the still get perfectly cool, and then empty its contents into a linen cloth, and express out the water impregnated with oil.

To every ten quarts of that liquid, add 3 lbs. of flowers of thyme, and after infusing it as before and for the same space of time, rapidly distil the whole over a water-bath, with a brisk fire. The oil of serpolet is similarly prepared.

Oil of cloves.—Take of

Good quality bruised cloves	5.000
Chloride of sodium (salt)	.500
Pure water	10.000

After one day's maceration, distil the whole over a water-bath, through a long refrigerant, until the liquid running out becomes clear. The milky aqueous mixture soon divides, and the oil contained therein being the heavier of the two, settles at the bottom of the receiver, and is drawn off in the usual way. The accompanying water holds in solution a portion of oil, and is re-distilled over fresh cloves as before, to furnish new quantities of oil.

This oil is of a yellowish color, of a very sweet odor, and has a strong savor of cloves. It is used both as an odontalgic and as a perfume.

In purchasing cloves, be careful to select those which are strongly fragrant, because some perfumers are dishonest enough to use their cloves whole, and after having exhausted, to perfume them with a little oil, and again send them to market to be sold as fresh.

Oil of hyssop.—Proceed as for the oil of thyme.

Essential oil of cinnamon, of sassafras.—The bark should be as fresh as possible, and when recent, yields three drms. of essential oil to the pound, but much less when it is old.

Take of Ceylon cinnamon, or better, Chinese, because, though inferior in quality, it is richer in oil; bruise and macerate it for a day in six times

its weight of water. Then add salt, throw the whole into a still, and distil with a gentle fire. Continue the operation until the water begins to run off clear. The milky compound in the receiver after a while separates, the water being the lighter of the two, forms on the top, and is to be drawn off in the usual way, and re-distilled four consecutive times upon the same cinnamon in order to entirely exhaust it of oil.

Of the two kinds of oil of cinnamon, that from the Ceylon is of superior quality, and is six times more costly than that of the Chinese bark: the latter, besides, is of less agreeable odor.

The same operation produces oil from sassafras bark.

Oils of *lemon, bergamot, cedrat, &c.*—These oils are obtained in two ways: first, by expression, secondly, by distillation.

In the first method, the fresh peels or rinds are macerated in order to lay bare the vesicles which secrete the oil. This pulp is then collected together, and squeezed between two plates. These oils, after repose, deposit the parenchyma brought over with them. When they become clear, they are put up and kept in ground-stoppered bottles. But this yellow oil soon becomes thick, partially losing its

solubility in alcohol, acquiring a very disagreeable odor, and the property of spotting clothes.

Those, on the contrary, obtained by distillation, are white, fluid, more or less sweet in odor, and very soluble in alcohol. They keep well and wet the clothes without spotting or greasing them.

Distilled essence of lemon.—Cut into small pieces a dozen of lemons, and put both juice and peels into a well-covered vessel, with 3 pints of lukewarm water; infuse until next day in a water-bath, then pour the whole in a still, lute, and distil with a good fire. The liquor that first runs over, is poured into a glass bottle to settle. As the essence is lighter than the water, it rises to the top, and is separable by reversing the bottle, the finger upon the mouth permitting its gradual emission through a partial opening. This inversion of the bottle changes the position of the liquids, and thus the water having escaped, the essence is retained by immediately closing the orifice.

Essence de Portugal.—This essential oil of orange, known as above, is manufactured like the oil of *petit grain*, and is subject to similar adulteration. It is obtained in Portugal, from the *orangettes* (unripe oranges), by a process similar to those before mentioned. It is frequently adulterated with

[illegible] milkiness [illegible] whilst it remains clear [illegible] unsatisfactory.

[illegible] *lemons.*—[illegible] a number of [illegible] and macerate them [illegible] water for a day or more, and then [illegible] the distilled essence of lemon.

[illegible] *spirits of turpentine* [illegible] and lavender, and all those [illegible] is so strong that it is difficult [illegible] presence of a foreign admixture [illegible] with such impunity, that some [illegible] has for a long time [illegible] Spirits of turpentine is almost [illegible] their falsification. [illegible] dissolving grease, sug[illegible] of fat to detect its [illegible]

[illegible] different pro[illegible] oil of [illegible] experiments the [illegible] difference of the [illegible] consistence with [illegible] oil of

poppy, in fine, which gave the most exact results, and enabled the detection of spirits of turpentine, even when mixed in small proportion with the essences before mentioned.

His process was as follows: he took 56 grains of oil of poppy, and placing it in a graduated glass tube, then added an equal quantity of the essence to be essayed. When the mixture is shaken up, it becomes milky-white if the essence is pure; whilst, if turpentine is present, it remains clear and transparent.

This process can be verified by first trying a pure essence, and then another adulterated with turpentine. If turpentine is present, even in small proportion, it will be seen that there is no change induced in the essence by the addition of oil, whereas if it is absent, under the same circumstances, the oil will be milky.

To make this trial successfully, it is necessary that the two essences be thoroughly blended. To effect this, we give the method employed in commerce. Take of pure essence and add the requisite quantity of turpentine, pour them into a vessel, and heat over a water-bath until the mixture, at first slightly troubled, becomes completely transparent. In this way the mixture is exactly insured.

Adulteration of attar of rose.—Guibourt (*Journ. de Pharm.* 1849), after showing the unreliableness of the physical characters, as a test of purity, because of the readiness with which they may be imitated, proposes three tests for distinguishing the true attar. The usual adulterants are oils of rosewood and geranium. They may be detected as follows:—

By iodine.—The suspected attar is placed in watch-glasses, under a bell, along with a capsule containing iodine. The vapors of iodine, after some hours, condense, and form a brown areola upon the oil, if adulterated, but do not change its color, if pure. On exposure to air, the iodine volatilizes, but the color, in either case, remains unaltered.

By nitrous acid.—This serves only to detect the oil of geranium, to which it imparts an apple-green color; as it tinges the attar and oil of rosewood alike dark yellow.

By sulphuric acid.—This reagent turns all three of the oils brown, but the attar retains the purity of its odor, while that of the oil of rosewood is rendered more perceptible; the geranium oil, at the same time, acquiring a strong and unpleasant smell.

CHAPTER XLI.

OF SPIRITUOUS ODORS OR EXTRACTS.

THESE spirits are alcoholic extracts of the perfumes contained in pomades or fatty bodies.

1*st process for extracting the perfume from greasy bodies.*—Into each of three digesters or vessels, with well-fitting covers, and all heated by water-baths, put 25 lbs. of any perfumed antique oil, say oil *à la rose*, and pour on the first 25 quarts of spirit, and agitate and digest the whole for three days; at the end of this time decant the spirit thus perfumed, and pour it anew into the second vessel, and afterwards repeat the operation as at first upon the third quantity. This spirit thus obtained will be complete.

2*d process.*—Select a deep and sufficiently large stoneware vessel, and in it melt by a water-bath 4 lbs. of double pomade from flowers, either jonquil, hyacinth, tuberose, or attar, and then add there to 4 quarts of perfectly inodorous alcohol. Cover the vessel well, and digest the whole for two weeks or a month, stirring frequently with a spatula. The

Infusion de camomille Romaine.—One pound of flowers suffices for 3 quarts of brandy.

Infusion of absinthe: de sauge, &c.—Take only four leaves to the quart of brandy. These infusions serve in the composition of sundry aromatic waters.

Infusion or *esprit de safran.*—To a quart of alcohol, take 2 oz. saffron and infuse for two months. This spirit is used for coloring waters, pastes, &c., but in very small proportions.

Infusion or *esprit de rhodia.*—Infuse as before 1 lb. of rhodium wood in 2 quarts of spirit. If the wood is resinous, only half a pound is required.

Infusion or *teinture de canelle.*—Take 4. oz. best bruised cinnamon to the quart of spirit.

Tincture of sassafras.—Infuse 8 oz. of bruised sassafras in one quart of alcohol.

Tincture of santal-citrin (yellow sanders).—Operate as for the preceding infusion.

Tincture of benzoin.—Take

Benzoin in tears and pulverized	2 oz.
Alcohol 36° B.	1 lb.

After seven days' infusion, filter.

This tincture is used, principally, for making the *lait virginal*, either with pure rose, orange flower or lavender water.

Tincture of storax.—Tolu balsam.—Same proportions and manipulations as for the preceding.

Tincture of Peru balsam.—Two oz. of balsam to the quart of spirit.

Tincture or *esprit d'ambrette.*—Infuse 3 lbs. of slightly bruised ambrette seeds in 6 quarts of spirit, and after six weeks, filter.

Esprit de fenugrec; de badiane.—Four oz. of the bruised seeds are infused for one month, in a quart of spirit.

Esprit de vanille.—Divide the vanilla into as many small pieces as possible, and follow the same process as for the last infusion. When distilled, this tincture gives a mild white extract of great utility.

Esprit de musc.—Rub up an oz. of musk in a heated mortar with half an ounce of rock candy, and infuse the whole in a quart of alcohol, at a hot-house temperature. Then filter, and preserve the marc for further use.

Esprit d'ambre.—Take ambergris and proceed as above, adding, according to some perfumers, half an oz. of shalots. The marc serves for smoking pastiles.

Esprit de civette.—Rub up ½ an oz. of civet, 2

[illegible] and prepare [illegible] before given.

[illegible].—Take 2 lbs. [illegible] quarts [illegible] after [illegible].

[illegible].—Take of the powders [illegible] and proceed as for the [illegible].

CHAPTER XLIV.

TINCTURES FOR COLORING.

Violet tincture.—Four ounces of Brazil wood to a quart of spirit. Infuse together for two weeks, frequently stirring during the interval; after which, filter.

Red tincture.—The same process as for the above. Four oz. of alkanet to a quart of spirit.

Yellow tincture.—Substitute *turmeric* for the alkanet and operate as above. Sometimes this tincture is mixed with the red, to obtain a deeper tint for coloring the soaps and other compositions.

Green tincture.—Take of fresh morel leaves a handful, and infuse in a *q. s.* of spirit to cover them, and when the liquid is of the right tint, filter.

CHAPTER XLV.

DISTILLED AROMATIC SPIRITS.

Eau spiritueuse de lavande.—This is most excellent for dissipating unpleasant odors.

Take of fresh lavender flowers	3 lbs.
Alcohol 32° B.	6 lbs.

After several days' maceration, distil over a water-bath. Good brandy may be substituted for alcohol. It is optional with the perfumer to add 1 lb. of rose leaves, at a distillation. The product is then very agreeable.

Eau spiritueuse de lavande, à la citronelle.—Add to the above infusion an equal portion of balm-mint leaves, and manipulate as before directed.

Eau spiritueuse de lavande, à l'ambre, au musc, à la bergamote, à l'oranger.—For each of these spirituous waters, add 1 oz. of their respective perfume material, and distil as before; or dissolve a little of their essence in the *eau spiritueuse de lavande.*

Eau spiritueuse de lavande à la rose.—In 12 quarts of good spirit, infuse 1 lb. of lavender flowers, 12 lbs. of roses previously bruised, 4 oz. of rasped Rhodium wood, and distil over a water-bath, adding first three quarts of water, in order that the distillation may not be carried to dryness, and a bad odor thus created.

Eau spiritueuse de mélisse.—Take of

Balm-mint fresh and dry	6 lbs.
Alcohol 33° B.	11½ lbs.

Macerate for some days, and then distil.

Eau spiritueuse d'héliotrope.—Take

Vanilla	3 drms.
Double orange-flower water	6 oz.
Alcohol 33° B.	1 quart.

Macerate for three days, and then distil over a water-bath, and color the liquid with tincture of cochineal.

Eau spiritueuse de canelle.

Pulverized cinnamon	8 oz.
Good brandy	4 lbs.

After some days' infusion, distil and draw off all the brandy.

Eau spiritueuse de citron, de bergamote.

Fresh lemon peels	1½ lbs.
Brandy	9 lbs.

Macerate for four days, then distil over a water-bath, and draw off 9 quarts of liquor.

Eaux spiritueuse d'écorce d'orange, de fleurs. d'oranger.—Substitute orange peel or orange flowers, and proceed as for the above.

Eau spiritueuse d'anis.—Take of

Angelica seed	6 oz.
Anise "	6 oz.
Brandy	8 lbs.

Bruise the seeds, and after some days' infusion with the brandy, distil off 6 lbs. of spirit.

Eau de vie aromatique Anglaise.

Muriate of ammonia	5 oz.
Subcarbonate of potassa	6 oz.
Lemon peel	4 oz.
Cinnamon	2 drms.
Cloves	2 drms.
Brandy	2 quarts.

Distil and draw off 3 pints of liquor. If alcohol is used instead of brandy, let it be diluted with 4 quarts of water.

Eau de vie de menthe.—Take 12 oz. mint, freshly picked, the peels of four good lemons, and infuse these materials in 4 quarts of brandy. Distil over a water-bath, and run off 2 quarts of liquor, in which dissolve 1 drm. ess. of peppermint. Then filter and bottle.

CHAPTER XLVI.

COLOGNE WATERS.

Eau de Cologne du Codex.

Essence of	bergamot	2 oz.
"	lemon	2 oz.
"	limette	2 oz.
"	orange	1 oz.
"	*petit grain*	1 oz.
"	cedrat	1 oz.
"	rosemary	1 oz.
"	lavender	½ oz.
"	orange flowers	½ oz.
"	cinnamon	3 drms.
Spirit of rosemary		8 oz.
Compound water of *mélisse*		3 lbs.
Alcohol 32° B.		12 lbs.

Distil over a water-bath nearly to dryness, and add

Eau de bouquet	1 pound.

Eau de Cologne by M. PLENEY.

Alcohol 33° B.	24 lbs.
Essence of neroli	3 drms.

Essence of lemon	3½ scruples
" bergamot	27 grains
" cedrat	27 grains
Hungary water	3½ scruples
Lavender "	18 grains
Eau de vulnéraire	21 grains
Rosemary water	14 grains.

Put the rosemary water into an unstoppered bottle, the spirits of wine into a large carboy, and add consecutively thereto the essences, shaking well together all the time. Then close the vessel, and expose it for forty-eight hours to a mild heat, set it by for twenty-four hours to cool, add the rosemary water, and filter through unsized brown paper, until it is perfectly clear.

Eau de Cologne, by DOROCHEREAU, *Paris*.

Spirits of wine, tasteless and inodorous	7 quarts
Essence of Portugal	11 drms.
" bergamot	11 drms.
" lemon	1 oz.
" neroli, fine	10 drms.
" " (*petit grain*)	12 drms.
" rosemary	1 oz.
" lavender	1 oz.
Rose water	14 drms.
Jasmine water	13 drms.
Orange-flower water	15 drms.

Mix well the whole by thorough shaking, and filter through four papers. After two weeks' repose, submit to two distillations, then bottle the water and let it remain in a temperate place for a year. This Cologne is of 30° to 33° B., and is in the greatest perfection as to fragrance of odor. It is put up in elegantly shaped bottles, with handsomely ornamented labels affixed.

Eau de Cologne by M. MARIE, *Dijon.*

Alcohol	30 quarts
Water	15 quarts
Essence of bergamot	12 oz.
" cedrat	2 oz.
" lemon	2 oz.
" Portugal	2 oz.
Essence of neroli	2 oz.
" rosemary	½ oz.
" clove	2 drms.
Tincture of benzoin	4 oz.
Citronelle	1 oz.
Peppermint leaves	2 oz.
Melisse "	2 oz.
Rosemary "	1 oz.
Angelica "	2 oz.
Cinnamon	2 drms.
Mace	2 drms.
Anise	8 oz.

Bruise the mace, cinnamon, and anise, infuse them for two days, then add to the rest of the materials, and distil off 35 quarts of Cologne.

Eau de Cologne, rectified.

Fresh lavender flowers	4 oz.
Absinthe tops	2 oz.
Fresh hyssop tops	1½ oz.
" marjoram tops	2 oz.
Anise seed	1½ oz.
Juniper berries	1 oz.
Caraway seed	10 drms.
Fennel "	1 oz.
Cumin "	10 drms.
Cardamom seed	2¼ oz.
Cinnamon	2 oz.
Nutmeg	2 oz.
Fresh serpolet tops	2 oz.
Dry angelica root	4 oz.
Cloves	1 oz.

Let each of these articles be previously prepared as is necessary, and then throw them all together in a still, and add thereto 38 quarts of alcohol. After forty-eight hours' maceration distil over a water-bath, and draw off all the spirit. To the liquid thus obtained, carefully add, according to rule, the following articles, each of approved quality and freshness.

Compound water of *mélisse*	5 lbs.
Spirit of rosemary	8 lbs.
Neroli	6 drms.
Ess. of lemon and cedrat each	1 oz.
Ess. bergamot	10 oz.

Rectify the whole by redistillation over a water-bath moderately heated.

Eau de Cologne (double).—Dissolve in 25 quarts of alcohol

Essence of	bergamot	12 oz.
"	cedrat	2 oz.
"	lemon	2 oz.
"	lavender	1 oz.
"	Portugal	2 oz.
"	thyme	1 drm.
"	neroli	2½ oz.
"	rosemary	2½ oz.

Distil, and add to the liquor

Eau de mélisse 2 quarts,

and dilute to 30° B. with orange-flower water. Rectify the whole by redistillation, to produce a Cologne of superior quality.

Eau de Cologne, concentrated, by MADAME CROZET, Paris.

Essence of	Portugal	12 drms.
"	bergamot	12 drms.
"	cedrat	1 oz.

Essence of lemon		1 oz.
"	neroli, fine	12 drms.
"	" (*petit grain*)	1 oz.
"	rosemary	2 oz.
"	lavender	2 oz.
Tincture of benzoin		1 drachm.

Infuse the whole in a quart of well-rectified alcohol, for two weeks, stirring several times daily during the interval. Distil and repeat; the product will be a quart of highly concentrated fragrant Cologne, which can be diluted with ten times its volume of spirits of wine, to form an excellent article, or with twenty times for a Cologne of ordinary quality.

This concentrated water, occupying but little bulk, is on that account of more easy and less costly transportation than the ordinary Cologne.

CHAPTER XLVII.

COMPOUND AROMATIC WATERS.

Eau spiritueuse régénératrice, by MM. LAUGIER.

1*st Operation.*—One pound of bruised bergamot, 13 oz. water, 3 quarts alcohol, 36° B. After two days' infusion, distil off 3 quarts of water.

2*d Operation.*—3 lbs. bruised bigarade (Seville orange), 13 oz. water, 3 pints of alcohol from the first operation. After two days' infusion, distil off 3 quarts of liquor.

3*d Operation.*—6 lbs. of Portugal orange, 13 oz. of water, 3 quarts of liquor from the second operation. After twenty-four hours' infusion, distil off 3 quarts.

4*th Operation.*— 8 lbs. of mint leaves, 8 lbs. herb-dragon leaves, 8 lbs. fine cinnamon, 4 lbs. rose leaves, 8 lbs. water, 3 quarts of alcohol from the third operation. After forty-eight hours' infusion, distil, and the product which comes over is a very agreeable and pleasant water for toilet use.

Eau des templiers, by FABRE.

Alcohol	5 quarts.
Acetic ether	8 oz.
Mecca balsam	1 lb.
Gum guaiacum	1 lb.
Grecian beans	8 lbs.
Badiane	1 lb.

Bruise those articles that should be so treated, mix the whole together, and after two days' digestion, distil, and to the product add

Essence of orange flowers	5½ oz.
" cedrat	11 drms.
" rosemary	3 drms.
" lavender	4 drms.
" thyme	4 drms.
" lemon and bergamot, each	10 drms.
Eau de mélisse	12 drms.
Double rose water	5 drms.
Jasmine water	5 drms.

Rectify by distillation.

Eau d'Ispahan, by MM. LAUGIER.—This justly renowned liquor is a substitute for Cologne water.

Essence of Portugal	2 lbs.
" rosemary	3½ oz.
" mint	1 oz.

Essence of cloves		2½ oz.
"	fine neroli	2¼ oz.
Alcohol		72 quarts.

Eau des Bayadères, by NAQUET, Paris.—This most elegant water has the property of refreshing the skin, improving the color, and effacing red blotches. A proportion sufficient to color and perfume a glass of water is added thereto, and the mixture applied to the face.

Its composition is as follows:—

Essence of	bergamot	4 oz.
"	lemon	2 oz.
"	Portugal	2 oz.
"	neroli, fine	1 oz.
"	" (*petit grain*)	1 oz.
"	Tolu balsam	1 oz.
"	rosemary	½ oz.
"	rose	28 drops.
Cochineal (for coloring)		½ oz.

Infuse the whole for six days in 12 quarts of alcohol, 36° B., then filter into bottles.

Eau des Odalisques, by BACHEVILLE.—To make five quarts of this cosmetic, take

Alcohol 32° B.	4 quarts.
Rose water	1 quart.
Cochineal	½ drm.

Cream of tartar (soluble)	4 oz.
Storax	1½ oz.
Liquid balsam of Peru	5 drms.
Dry " "	5 drms.
Pyrethrum root	1½ oz.
Souchet (root)	1½ oz.
Vanilla	1 drm.
Dry orange peel	2 drms.
Cinnamon	1 drm.
Essence of mint	1 drm.
Angelica root	1 drm.
Anise seed	1 drm.
Galanga	1 oz.

Infuse the whole for two weeks, and filter.

This cosmetic liquor is used both as a lotion and in baths. For a lotion, it should be diluted with six parts of water. It is good for preserving the freshness of the mouth; and for this use, 25 drops are added to 4 tablespoonfuls of cold or warm water. If the gums are bleeding and swollen, it is requisite to double the proportion of liquor, and gargle with the mixture several times daily.

Eau de la Sainte-Alliance, by J. M. FARINA, Paris.

Take 2 quarts of spirit (*esprit*) of coriander
2 " " " angelica

4	quarts	of spirit (*esprit*) of	balm mint
2	"	" "	*ravena*
3	"	extract (*extrait*)	jasmine
2	"	" "	tuberose
3	"	" "	rose
2	"	spirit (*esprit*)	lemon
3	"	" "	Portugal
1½	"	" "	angelica
½	"	" "	benzoin
25	"	essence of	clove
2	"	"	mint
2	"	"	neroli
4	"	"	cedrat
4	"	"	bergamot.

Mix the whole thoroughly, filter, and bottle up in elegant flagons.

Eau de rosières, by BRIARD.—The preparations which enter into the composition of this water, are

1*st.*	*Esprit de rose*	25 qts.
	Alcohol 33° B.	30 qts.
	Water	8 qts.

Draw off 30 quarts by distillation, and redistil over 30 lbs. of rose leaves.

2*d.* *Esprit de jasmin*, best oil of jasmine 4 lbs.
Alcohol 33° B. 4 qts.

Mix in a bottle, shake well and frequently.

3*d*. *Esprit de fleurs d'oranger.*

Orange flowers	12 lbs.
Alcohol 33° B.	24 qts.
Water	6 qts.

Distil over a water-bath and draw off 84 qts.

4*th*. *Esprit de concombre.*

Cucumbers	24 lbs.
Alcohol 33° B.	24 qts.
Water	6 qts.

Distil over a water-bath, draw off 24 quarts of liquor and redistil it upon the same quantity of fresh cucumbers.

5*th*. *Esprit de celeri.*

Fresh celery seeds	12 lbs.
Alcohol 33° B.	24 qts.
River water	6 qts.

Distil over a water-bath and run off 20 quarts of liquor.

6*th*. *Esprit d'angelique.*

Angelica root, dry, and of a year's age	15 lbs.
Spirits of wine 33° B.	20 qts.
River water	5 qts.

Distil over a water bath and draw off 20 quarts.

Teinture de benzoin.—Take

Powdered benzoin (tears)	6 lbs.
Alcohol 36° B.	12 qts.

After two weeks' infusion, filter.

Composition of the water.

(*Esprit*) spirit of		roses	4 qts.
"	"	jasmine	1 qt.
"	"	orange flowers	1 qt.
"	"	cucumber	2¼ qts.
"	"	celery	2¼ qts.
"	"	angelica	2¾ qts.
Tincture of benzoin			1½ pints.

Add a few drops of Mecca balsam and shake the whole together.

CHAPTER XLVIII.

OF PERFUMES.

THIS chapter is divided into four paragraphs; the 1st, treating of the compound odorous waters called *essences*, *waters*, *extracts*, and *spirits*, though no difference between them, either in their nature or results really exists; 2d, of the fuming pastiles; 3d, of the cassolettes; 4th, of the sachets.

1. *Of the compound odorous waters.*—Before entering into this subject, a word or two first to the reader. Always employ, by preference, the spirits of flowers (*esprits à fleurs*), prepared by macerating the flowers in alcohol, and then adding the various essences requisite to communicate the desired perfume. This primary operation is too much neglected. Secondly, multiply the combinations about to be described, and apply thereto new names, in imitation of the French perfumers, and in this way keep up the appearance of a diversified assortment.

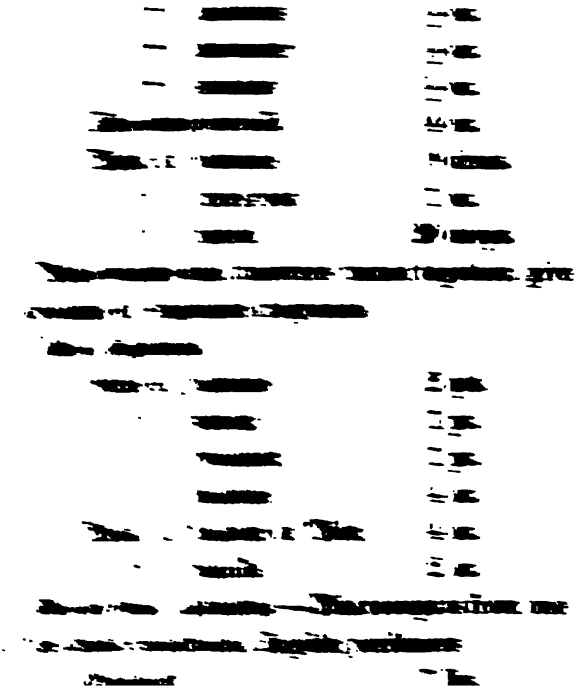
Eau jaune à l'amaryllis.—In 2 quarts of alcohol, dissolve 2 oz. essence of bergamot, 4 oz. essence of lemon, 4 drachms essence of Portugal, 4 drachms essence of neroli (fine), 1 drachm essence of thyme, 1 drachm essence of rosemary, 2 oz. of tincture of cloves, 8 oz. of *lait virginal*, as much of vanilla water, 4 drachms essence of amber, and 2 drms. essence of musk. Dilute the spirit to 30° B. with good rose water, and add a little of red or yellow tincture, according to choice.

Eau d'ambre royale.—To a quart of alcohol add ½ pint of spirit of ambrette, an ounce of essence of amber, an ounce of musk mixed with a proportional quantity of orange-flower water.

Eau de chypre.—Mix together

(*Eau de*) jasmine	1 qt.
" bergamot	1 qt.
" violet	1 qt.
" tuberose	1 qt.
(*Esprit*) spirit of ambrette	1 pt.
Essence of musk	1 oz.
Mecca balsam	1 oz.
Storax	½ oz.

Add to the mixture 2 oz. of rose water, and mix thoroughly together, so that no one odor predominates over the rest.



Lemon peel	10 oz.
Calamus	6 oz.
Alcohol	15 qts.

Macerate for a month in a well-stoppered demi-john. Distil then, and to the liquor add

Orange-flower water	5 qts.
Essence of roses	24 drops.
Pulverized ambergris	1 drm.
Vanilla in pieces	2 oz.

Macerate for a week, and filter. This is one of the most agreeable waters.

Eau d' ambroisée.

Alcohol	4 qts.
Extract of jonquil	1 qt.
" orange flowers	1 pint.
" rose	½ pint.
" acacia	½ pint.
Essence of bigarade	2 drms.
" vanilla	4 oz.
" musk	1 oz.
Tincture of storax	4 oz.
Mecca balsam	4 oz.
" saffron	2 oz.

Eau de millefleurs.

Alcohol 36° B.	18 qts.

Peru balsam	4 oz.
Essence of bergamot	8 oz.
" cloves	4 oz.
" neroli (common)	1 oz.
" thyme	1 oz.
" musk	2 oz.
Water of orange flower	4 drms.

Eau sans pareille.—In 2 quarts of alcohol dissolve ½ drachm of oil of cloves, 2 drms. spirit of cloves, 2 drms. essence of bergamot, 1 drm. essence of thyme.

After the solution of these substances, add of extracts of rose, jonquil, violet, tuberose, orange-flowers ½ pint; of extract of jasmine 8 oz., of reseda and acacia 2 oz. each. Thoroughly shake together, and add ½ drm. of essence of amber, as much essence of musk, and 2 drms. tincture of benzoin.

Eau Romaine.

Jasmine water	3 qts.
Vanilla "	1 qt.
Acacia "	1 qt.
Tuberose "	1 pt.
Essence of amber	2 oz.
Tincture of benzoin	8 oz.

Extrait de miel royal.—Dissolve in 4 quarts of alcohol

Essential oil of cloves	2 drms.
Lemon	1 drm.

and after the solution add

(*Extrait*) extract of		rose	2 qts.
"	"	neroli	½ pt.
"	"	jasmine	1 pt.
"	"	ambrette	1 pt.
"	"	rhodium	2 oz.
"	"	vanilla	4 oz.
"	"	musk	2 oz.
Tincture of benzoin			4 oz.

Mix with a sufficient quantity of rose water, and filter.

Extrait de bouquet.

2 quarts spirit of jasmine
2 " extract of violets
1 quart spirit of acacia
1 " " rose
1 " " oranges
1 " extract of œillet
4 drachms flowers of benzoin
8 oz. essence of amber.

Extrait de fleurs de pêcher (peach blossoms).

6 qts. alcohol, 36°B.
6 lbs. bitter almonds
2 qts. spirit of orange flowers
4 drms. essence almond laurel
4 drms. essence Peru balsam
4 oz. essence lemon

Essence of musk

Musk	5 oz.
Civet	1 oz.
Spirit of ambrette	4 qts.

Digest together, in a warm room, for about two months.

Essence of amber.

Ambergis	4 oz.
Musk	2 oz.
Spirit of ambrette	4 qts.

Essence of civet.

Senegal civet	1½ oz.
Musk	½ oz.
Dry vouli-vasa	1 oz.
Black amber	½ oz.
Spirit of ambrette	4 qts.

Essence of vanilla.—Take of vanilla, cut into pieces, 3 lbs., and infuse it in a warm place together with

Spirit of ambrette		4 qts.
Cloves		2 drms.
Cinnamon		4 drms.
Musk		½ drm.

After several months' digestion filter, and put up in handsome bottles.

Parfum des rois.

Alcohol 36°B.		8 qts.
Storax		6 oz.
Benzoin		1 lb.
Aloe wood		8 oz.
Esprit of roses,	1st infusion	1 qt.
" orange flowers	"	1 qt.
Essence of amber	"	8 oz.
" musk	"	8 oz.
" vanilla	"	1 lb.

OF FUMING PASTILES.

These compounds, consisting of odoriferous substances, diffuse an agreeable perfume during their slow combustion, and hence are convenient for dissipating bad odors in the chamber of the sick or elsewhere. They are of different shapes, and neatly put up in paper or wooden boxes.

Simple pastiles.—Take ½ oz. of benzoin, 1 drm. of cassia, 2 oz. of charcoal, and 1 drm. of saltpetre.

Reduce all of the above to powder, and mix into a paste with a solution of 1 oz. of gum tragacanth to the pint.

Pastiles au benzoin.—Take ½ lb. of benzoin, 4 or 5 grains of storax, 5 grains of cassia, 2 drms. of dry Peru balsam, ½ drm. of cloves, ½ oz. of charcoal, 1 drm. of nitre, ½ drm. essential oil of orange flowers, and ½ drm. tincture of ambergris.

All these materials must be in fine powder.

Pastilles à la rose.

Gum, in impalpable powder			6 oz.
Olibanum	"	"	6 oz.
Storax	".	"	6 oz.
Saltpetre	"	"	4 oz.
Powder *à la rose*, impalpable powder			8 oz.
Charcoal		" "	2 lbs.
Essence of roses			½ oz.

Mix together the powders, and add to them a quart of rose water in which has been dissolved an ounce of gum tragacanth. Rub up well in a mortar, and of this paste form the pastiles. They are burned upon a handsome chafing-dish or perfume-pan made for the purpose. The pastiles, the receipts for which will follow, are, according to Laugier, prepared in the same manner as the aforementioned.

Pastilles à la vanille.

Gum galbanum	6 oz.
" olibanum	6 oz.
Storax	6 oz.
Nitre	4 oz.
Cloves	4 oz.
Powder *à la vanille*	8 oz.
Charcoal dust	2½ lbs.
Essence of cloves	2 drms.
" vanilla, 1st infusion	4 oz.

Pastilles des Indes (yellow).—Take 8 oz. yellow sanders, 4 oz. aloe wood, 4 oz. fine cinnamon, 4 oz. rhodium wood, 4 oz. cedar wood, 2 oz. clove wood, 2 oz. sassafras, 2 oz. myrrh, 4 oz. benzoin, 4 oz. storax, 2 oz. vanilla, 2 drms. musk, 2 drms. of ambergris, 1 drm. of civet, and 2 oz. ambre. Sift these materials as finely as possible, and use the mucilage as before, adding ½ drm. of essential oil of cloves, and as much of essential oil of rhodia.

OF THE FORM OF THE PASTILES.—After having well kneaded and rolled the paste upon a marble slab, it is elongated into slender lengths, which then are subdivided into small pieces of about an inch in height. These pieces, in their turn, are flattened with the blade of the spatula, or else formed with the fingers, into little cones. Such were the old

Balsam of Peru	105 grs.
Cassia	60 grs.
Cloves	30 grs.
Nitre	60 grs.
Powdered charcoal	600 grs.

Reduce to fine powder, add tincture ambrette 60 grs., and mould into forms.

OF MODERN CASSOLETTES.—Cassolettes are small urns of earthenware, porcelain, or metal, with cullendered tops. Having been filled with odorous material they are heated at the bottom, and the volatile perfume escapes through the holes, and diffuses its odor. They are filled with composition as follows:—

Cassolettes odoriférantes, à l'ambre.

Black amber, in powder	4 lbs.
Powder *à la rose*	2 lbs.
Benzoin in powder	1 oz.
Essence of roses	½ oz.
Gum tragacanth, in powder	½ oz.
Oil of Santal	some drops.

Mix together into a paste.

Cassolettes de Portugal.—This powder is equally employed for pastiles, sachets, and cassolettes.

Take ½ lb. of dry orange peel, 2 lbs. cloves, 1 oz. storax, 1 oz. benzoin, 2 drms. of ambrette, 1 drm. of musk and amber, pulverize them all and add half

an oz. tragacanth and form a paste, with a sufficient quantity of essence of bergamot. When this composition is intended for sachets, the essence and tragacanth are suppressed.

Cassolettes aromatiques.— Powder finely, after having dried them, first, of mint, sage, absinthe, lavender, rosemary, marjoram, and thyme, flowers and tops, each 8 oz.; secondly, of balm, myrtle, sweet basil, chamomile, citronelle, laurel, and hyssop, each 4 oz; thirdly, of roses and orange, each 8 oz.; fourthly, of juniper berries, cloves, coriander, badiane, and fenugrec, each 2 oz.; fifthly, of angelica, calamus, galanga, and orris root, each 2 oz.; sixthly, of cinnamon, sassafras, rhodium woods, and lemon peel, each 2½ oz.

Sieve, and make into a paste with a mixture of essence of ginger and tincture of benzoin, or with a little Cologne water.

Cassolette du Sérail.

Storax	250 grs.
Benzoin	120 grs.
Mecca balsam	120 grs.
Cloves	50 grs.
Yellow sanders	60 grs.
Ambergris	15 grs.

Pulverize [illegible] into forms.

OF SACHETS.—These articles, for some time heretofore out of [illegible] fashion. The sachet consists of a small [illegible] bag, enclosing fragrant powder, with an [illegible] outer covering or envelop of silk or satin [illegible] every variety, and ornamented [illegible] suitable to the taste of the [illegible]. They are used for perfuming wardrobes and [illegible].

[illegible] of powder [illegible] which are particularly adapted to [illegible] were mentioned, but [illegible] the [illegible] odorous powder [illegible].

[illegible]	[illegible]
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Sachets au bouquet des Grâces.—Orris root 6 oz., dry orange flowers, dry rose leaves 6 oz., dry bergamot peel and Portugal orange peel 6 oz., storax 2 oz. Powder well, sieve, and with the powder fill the sachets.

Sachets à la vanille.—Vanilla 4 oz., storax 4 oz., cloves 2 drms., benzoin 4 oz., musk ½ drm., rhodium wood 4 oz. This wood is added more to facilitate the reduction of the drugs, which are in part greasy and resinous, than for its odor. After being well powdered, the mixture is sieved; if there is any difficulty in passing it through, add in a little dry starch and ebony dust.

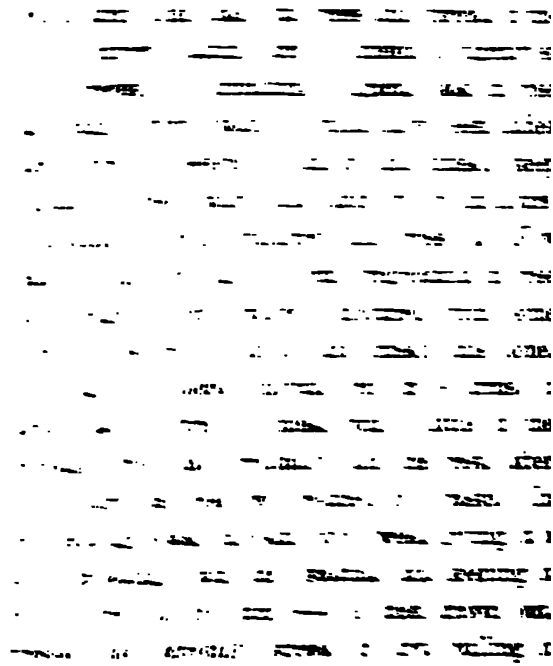
Sachets à la ambre.—Lay out squares of raw cotton, in the form and size of the sachet, and saturate them with powder *à l'amber;* or, better, amber in powder. Cover them with satin or silk.

Sachets de peau d'Espagne, au musc.—Take of raw cotton as above and sprinkle over a little essence of ambrette or musk.

Envelop the cotton with *peau d'Espagne* or silk.

Peau d'Espagne.—This skin, some years since in very general use, is of strong odor, and, like the sachet, is used for clothes, wardrobes, and bureau drawers.

Take a skin (kid), white dressed, pliant, not too



application twice, leaving sufficient interval between the two to permit the drying of the first coat. The skin, as lastly treated, is placed between two papers to dry, gradually, and is then kept between the same papers in close boxes. The remaining mucilage should be preserved, as it can be used in the preparation of odorous waters, as amber, musk, &c. This skin improves by age.

CHAPTER XLIX.

OF TOILET AND MEDICATED VINEGARS.

THE best vinegar should be used for these articles; that which is called "white wine vinegar," made by the acetification or oxidation of alcohol, is preferable.

These *vinaigres* are perfumed and made in two ways, either by *distillation* or *infusion*. Distillation, however, is the best mode, for whilst increasing the force of the vinegar, it whitens it.

They are also prepared by *solution*, that is, by dissolving, for example, 1 oz. of essential oil in a sufficiency of alcohol, and adding it to a quart of vinegar. This is the easiest and most speedy mode of preparing all the kinds of vinegars, each of which will be considered under its respective head.

OF VINEGARS BY INFUSION.—These are either *vinegars of flowers* or *aromatic vinegars*.

Vinaigre de toilette, by SINFAR, *Paris*.

Alcohol 33° B.	8 qts.
White vinegar	2 qts.

Cologne water	1 pint.
Extract of benzoin	2 oz.
" storax	2 oz.
Acetic acid	4 oz.
Essence of lavender	1½ oz.
" cinnamon	1 drm.
" cloves	1 drm.
Ammonia	1 drm.

Mix together the alcohol, lavender, cinnamon and cloves, and macerate for eight days; then add the vinegars, cologne, extracts, and ammonia; color, and filter through paper.

Vinaigre rosat.

Dry rose leaves, red	½ pint.
Good vinegar	8 quarts.

Macerate for two weeks in a closed vessel, and after that filter.

Vinaigre à la fleur d'oranger.

Fresh orange flowers	1½ lbs.
Vinegar	8 quarts.
Brandy, *à la fleur d'oranger*	1 quart.

Macerate for twelve days, and filter.

Vinaigres infusées à la lavande, de sauge, thyme, &c. One pound of fresh flowers to 12 quarts of vinegar.

Vinaigres infusées, de menthe poivre, de menthe fine, de mélisse, de baume.—Operate similarly, and in the same proportions as for the preceding.

Vinaigre framboise (raspberry).

Fresh raspberries, crushed	6 lbs.
Good vinegar	1 quart.

Macerate for a week, strain without expression, and, after some days, filter.

This vinegar serves for the dinner-table, and also to make vinegaretted raspberry syrups.

The vinegars of other fruits are similarly prepared; but as the subject does not properly belong to the art of which this book treats, the list is not extended.

Of Vinegars by Distillation.—The following is one of most general use.—Take

Dry rose leaves	2 lbs.
Vinegar	8 lbs.
Alcohol *à la rose*	2 lbs.

Distil the roses and vinegar over a sand-bath, and after having drawn off three-fourths of the liquor, arrest the distillation. Color the alcohol with a little tincture of cochineal, and add it to the distilled vinegar. This vinegar is put up in ground-stoppered bottles. It refreshes and strengthens the skin.

If it so happens that the vinegar should become a little empyreumatic in taste, plunge the bottles into cold water, or a mixture of ice and snow, and keep them there for ten or twelve hours. For the distillation of vinegars, the alembic must be of glass or stoneware. When made in copper vessels, such vinegars, used internally, are apt to exert a poisonous influence, by reason of the metal which they have taken up in the course of their preparation. It is not so important with those intended for outward application, but still, it is better to avoid the use of copper vessels, altogether, for these products.

Vinaigre à la lavande.—Take 12 quarts of good vinegar, 3 lbs. fresh lavender flowers, picked and dried. Infuse together for two weeks, and then distil over a water or sand bath with a moderate heat, at first (lest the flowers should be driven over with the liquid), and run off eight quarts of vinegar.

Vinaigre de romani.

Vinegar	30 qts.
Flowers of rosemary	2 lbs.

Distil, and draw off 15 quarts.

To obtain the vinegars of the other aromatic plants, operate exactly as for that of rosemary.

Vinaigre à l'orange.—Take orange peel, vinegar, and alcohol *à l'orange*, and operate as for the vinegar *à la rose.* As this vinegar is nothing more than a solution of neroli in alcohol and acetic acid or vinegar, it is as well to simplify the process to a mere mixture of neroli, alcohol 36° B., and vinegar.

Vinaigre à la bergamote.—Take 2 dozen good ripe bergamots, peel them, and digest the rinds in 8 quarts of vinegar for a week, then distil over a water-bath, and run off five quarts.

Vinaigre au cédrat.—Operate as for the above.

Vinaigre au musc.—To 8 quarts of vinegar, take 4 drms. of musk and ½ drm. amber; infuse for some days, and distil off six quarts.

Vinaigres au girofle, à la muscade.

Cloves	6 oz.
Alcohol 36° B.	2 lbs.
Vinegar	8 lbs.

Infuse the bruised cloves in the alcohol for eight days, then add the vinegar and distil over a sand-bath.

VINEGARS BY SOLUTION.

Vinaigre virginal.—This mild and refreshing liquor is most excellent for the removal of prickly

heat, but, before being used for such purpose, must be diluted with water.

Take benzoin pulverized	2 oz.
Alcohol	8 oz.
Vinegar	2 lbs.

Digest the benzoin in the alcohol for a week, decant the liquor, and to the residue add the vinegar; after six days' infusion, this too is decanted, and it and the alcoholic tincture are mixed together, and filtered the next day. This vinegar weakened with water is a most excellent cosmetic, and is in fact a remedy for the ill effects of pernicious rouges and paints upon the skin.

Vinaigre de turbith.—An alcoholic tincture of storax, made up with the same proportions as the preceding, and mixed with as much vinegar.

Vinaigre balsamique.—By substituting Mecca balsam for the resins above used, this vinegar is obtained. To operate more rapidly, replace with tincture of Mecca balsam, in the proportion of 12 drms. to the quart of vinegar.

Vinaigre des Sultanes.—Mix together 2 quarts of vinegar and 2 oz. tincture Peru balsam.

Crême de vinaigre.

Essence of bergamot	1½ oz.
" lemon	1 oz.

Essence of neroli	4 oz.
" roses	2 oz.
Oil of nutmeg	2 drms.
" cloves	1 drm.
Storax	2 drms.
Vanilla	2 shells.
Benzoin	2 drms.
Alcohol 36° B.	2 lbs.
Acetic acid	5 quarts.

Mix all these materials with the alcohol, and, after two days' digestion, distil over a water-bath, and to the liquor which comes over add the acetic acid.

This is one of the best cosmetics, and is regarded by Fontenelle as preferable to Cologne water. It is to be used in the proportion of a tablespoonful to a tumbler of water.

Vinaigre de Cologne.—Add one oz. of very strong acetic acid to every quart of Cologne water.

Vinaigre de Portugal.—Add 2 parts of vinegar to 4 oz. spirituous essence of Portugal.

Vinaigre de Jouvence.—Take of

Spirit of cucumber	4 oz.
Tincture of storax	2 lbs.
Acetic acid	8 lbs.

This cosmetic, diluted with water, is most excellent for refreshing the skin.

The vinegar of all the other aromatic plants, as sage, thyme, &c., is prepared by dissolving 4 oz. of their essential oils, respectively, in 4 oz. alcohol 36° B., and adding each solution to 8 oz. of vinegar.

Vinaigre de mille fleurs, de bouquet.—To 2 parts acetic acid, add one part of alcohol in which has been dissolved ½ drm. essence of *mélisse*, and as much essence of vanilla, some drops essence of bigarade and myrtle, and half a drachm of essence of roses. This *pot-pourri* can be varied so as to furnish vinegars of new and grateful fragrance.

The vinegar of any one of the rest of the flowers is prepared by dissolving 12 drops of its essential oil in a gill of alcohol, adding this solution to vinegar, and filtering.

Any desired color can be imparted by the appropriate tincture.

Vinaigre de thyme, à la rose.—To thirty quarts of distilled vinegar of thyme, add thirty of vinegar *à la rose*, either infused, distilled, or solved. The perfume of all the aromatic vinegars can be improved in a similar manner.

VINEGARETTED EXTRACTS.—These unite in their preparation the processes of distillation and solution.

Extrait de vinaigre de jasmin.—Take sixty quarts of vinegar, and 4 lbs. orange flowers; distil the whole and draw off thirty quarts, to which add spirit of jasmine in the proportion of 1 oz. to the quart.

Extrait de vinaigre à la vanille.

Vanilla pulverized	6 oz.
Alcohol 36° B.	2 lbs.
Vinegar	8 lbs.

Infuse the vanilla in the alcohol for eight days, then add the vinegar and distil over a sand-bath. To the vinegar which comes over, pour in half an ounce of strong essence of vanilla.

Extrait de vinaigre à la tubéreuse.—Infuse together 30 quarts of vinegar, and 2 lbs. of tuberose; distil, and draw off 15 quarts. That done, add to the product 12 oz. strongly perfumed spirit of tuberose. If the odor is not sufficiently grateful, add some drops of neroli.

Extrait de vinaigre citronné à la verveine.—This very simple, fragrant, aromatic vinegar meets with ready sale. To make it, fill a demijohn three-fourths full with vinegar, and add the remaining fourth of dry leaves of citronelle and vervain (*verbena triphylla*). Stopper the vessel, and place it in a warm room for several days, frequently re-

moving the cork and giving the whole a good shaking. Decant thrice, and each time add half as much fresh leaves, and macerate as before. Decant, and, after eight days' repose, filter. This is the simple vinegar *Citronné à la verveine.* By adding to 4 quarts of this vinegar one quart of spirituous water of lavender, in which are dissolved 2 drms. essence of bergamot and 2 drms. essence of *mélisse*, the *extract* is obtained.

VINEGARS PROMOTIVE OF HEALTH.

Vinaigre anti-méphitique, by BULLY.—To 7 quarts of water, take

4½ quarts alcohol
1 oz. essence of bergamot
1 oz. " lemon
3 drms. " Portugal
6 drms. " rosemary
2 drms. " lavender
1 drms. " neroli
1 pint tinct. of *mélisse.*

Mix the whole together, and, after twenty-four hours' repose, add

2 oz. infusion of storax
2 oz. " benzoin
2 oz. " cloves.

Shake well again, then pour in two quarts of good vinegar, and after some hours filter, and mix with 3 oz. of strong acetic acid.

Antiseptic and curative vinegar, by Mme. Dufour.—Take a handful of the leaves of lavender, thyme, serpolet, rosemary, citronelle, angelica, savory, mint, marjoram, sage, house-leek, vervain, white horehound, hyssop, absinthe, balm, pimpernel, herb dragon, and sweet basil. Add a garlic, 6 cloves, 1 oz. of cinnamon, 1 oz. of salt, and bruise and mix thoroughly together. Infuse this mixture for one month in 12 lbs. of vinegar, and at the end of that time strain, press out, and filter the alcohol.

Vinaigre camphré.

Camphor	6 drms.
Alcohol 36° B.	2 oz.
Strong vinegar	1 lb.

Powder the camphor in a mortar, add the alcohol, and afterwards mix the solution with the vinegar.

Vinaigre des quatre voleurs, by Verques.—*1st Process.*

Cinnamon	3 oz.
Cloves	3 oz.
Mace	3 oz.
Nutmeg	3 oz.

Camphor		3 oz.
Garlic		2 oz.
Volatile oil of	absinthe	2 scruples.
"	" rosemary	2 scruples.
"	" rue	2 scruples.
"	" sage	2 scruples.
"	" mint	2 scruples.
"	" lavender	2 scruples.
Acetic acid		2 lbs.
Vinegar		2 qts.

Bruise the materials and macerate them for eight days in the liquid; then strain, press, and filter.

2*d Process*, by LAUGIER.

200	quarts	of vinegar
1½	lbs.	of dry rosemary
1½	lbs.	of fresh sage
1½	lbs.	of mint
1½	lbs.	of rue
1½	lbs.	of lavender flowers
1½	lbs.	of calamus
1½	lbs.	of cinnamon
1½	lbs.	of garlic
12	lbs.	of absinthum.

Distil the vinegar upon the unbruised materials, and redistil the product upon the same quantities

of new material, which this time must be pulverized, and infused for some days previously. Run off 25 quarts, in which dissolve by heat a pound of camphor; and to the solution add 25 cloves. These last communicate the required color. The residues can be used for preparing a new quantity of vinegar equal to the first.

OF MISCELLANEOUS VINEGARS.—In this paragraph are comprised the vinegars, infused, distilled, solved, or decocted. Without doubt, some of the vinegars before named have good properties, but those considered in the following series are particularly endued with agreeable properties.

Vinaigre styptique, for removing wrinkles.—In a quart of vinegar boil a handful of myrtle leaves, and as much of oak leaves; strain, filter, and mix the liquor with a pint of deeply colored rose vinegar. On the label affixed to the flagon containing this preparation, recommend that the wrinkled parts be washed upon going to bed; and that the vinegar be applied by compression. It can be supplied from a saturated cloth, tied around the wrinkled part.

Vinegar astringent au girofle.—In two quarts of strong vinegar, boil three gall-nuts, a handful of sumac leaves, some young strawberry shoots, and

four cloves. Strain, and perfume with a little essence of cloves.

Its application is similar to the preceding.

Vinaigre scillitique, for clearing the voice.—Among speakers and vocalists, it is desirable, before commencing the exercises of their vocation, that the throat be freed from all pituitous hoarseness. This vinegar accomplishes that object, and besides imparting a tone to the glottis and all the organs, it serves to develop and perfect the voice. Put five or six drops of the preparation in a glass of warm water, and gargle therewith morning, noon, and night of the days on which the voice is to be exerted. Take of

Dried squills	1 part.
Good vinegar	12 parts.
Alcohol	½ part.

After two weeks' maceration in a close vessel, press out and filter.

Vinaigre colchique à la rose.

Vinegar 3°	12 oz.
Colchicum root	3 oz.
Alcohol	6 drms.

Infuse the finely divided colchicum, for eight days, in the vinegar; express, and then add the alcohol.

It is, perhaps, much better to use 1 oz. of alcohol 36° B. Perfume with some drops of essence of rose, and color with alkanet.

Vinaigre resolutif et fondant, for the cure of corns and warts. Mix together equal parts of nitrate of mercury and vinegar colored red with alkanet. The color is employed merely to disguise the nitrate of mercury, because otherwise purchasers would be frightened and deterred by the name, whereas it is only this salt that will radically cure warts and corns, as is affirmed, after personal experience, by the inventor.

Apply the vinegar with a small camel's-hair pencil, always avoiding the use of a metallic tool.

Vinaigre alcoholique, for fits and swoons.—Mix together equal parts of strong concentrated vinegar and alcohol 36° B.: and, to increase its force, add two drops of ether to the quart. This composition is most excellent in cases of fainting and swooning.

Vinaigre de mille pertuis, for the removal of rouge.—Infuse in a quart of vinegar 1 oz. of fresh flowers of St. John's wort, freed from their calices. After a week's digestion, strain, filter, and add to the clear liquor an ounce of alcoholic tincture of Tolu balsam. For use, dilute with one-half water.

Besides these medicated vinegars, all others, even such as are applicable for table use, are made and sold by perfumers. This is entirely out of their vocation, however; their dominion over the boudoir, parlor, and saloon being sufficiently extensive without extending it to the kitchen and dining-room.

OF VINEGARETTED AROMATIC SPIRITS, OR ESSENTIAL SALT OF VINEGAR.—First, under this section, we give the receipts of some *aromatic vinegaretted spirits*, and then the list of essences with which the *essential salt of vinegar*, as thus called, is generally perfumed. This salt is nothing more than the sulphate of potassa, which, being deposited in glass flagons, is then saturated with acetic acid, and perfumed with 50 or 60 drops of some essence.

Esprit aromatique de vinaigre, or *vinaigre Anglais*.—As this is a much favored preparation, the receipt here inserted will prove valuable. Take

Concentrated acetic acid	8 oz.
Essence of amber	1½ drms.
" lavender	2 drms.
" rosemary	1 drm.
Japan balsam (black)	24 drops.
Camphor	1 drm.

Dissolve the camphor in the acetic acid, add the essence and balsam, and digest for eight days. Filter, and put up in handsome bottles.

Vinaigre radical aromatique, by VERQUES.

Garlic		2 oz.
Camphor		1 drm.
Volatile oil of	absinthe	2 drms.
" "	mint	2 drms.
" "	rue	2 drms.
" "	lavender	2 drms.
" "	sage	2 drms.
" "	clove	2 drms.
Acetic acid		12 oz.

Prepare in the same manner as the vinegar *des quatre voleurs* (p. 312, by the same author).

Sal volatile aromatique Anglais.—Take carbonate of ammonia in small pieces, and add to every ounce

60 or 80 drops of	essence of	lemon
10 "	"	cloves
10 "	"	cinnamon.

This preparation is the ordinary *sal volatile.*

Essences employed for perfuming the *sal volatile de vinaigre.*

Essence of roses
" lemon

Essence of Portugal
" bergamot
" cedrat
" lavender
" limette
" benzoin
" rosemary
" balm
" *mélisse à la rose*
" myrtle
" vanilla
" lavande.

CHAPTER L.

SOAPS.

THE details of this branch of industry may be considered under six divisions: 1st, *the hard soaps;* 2d, light or flotant soaps; 3d, soft soaps; 4th, savonnettes; 5th, soap powders; 6th, essence of soap, or liquid soaps.

Windsor soaps.—Whilst the fabrication of this soap was yet in its infancy, most of it was drawn from England, but the rapid stride of intelligence among those engaged in this branch of manufacture has superseded the necessity of importation, by furnishing a home supply of the soap not only equalling, but even surpassing the foreign in quality. The *reputation* of the English article, however, is still pre-eminent, and our producers, imprudently lacking a confidence in the sale of their article if left to its own merits, still adhere to the practice of adopting the English label. The necessity of this *ruse* has long since disappeared, and the practice itself, reprehensible, because derogatory to the

advanced state of this branch of art, as well as humiliating by reason of an unnecessary fraud which it induces, is unworthy of any high-minded competent American workman, and should be discarded at once. Strive to excel; be not content with equalling. No mere imitators ever yet achieved greatness in any undertaking. Let the article protect itself, by its superiority both as to quality and economy; and, until it is so shielded, it is inferior, and the attempt to attribute fictitious properties by elegant envelops and counterfeit labels, is a most culpable artifice to deceive the unwary. No enlightened manufacturer will stoop to such trickery. He is content to base his success upon the excellence of his products, and such we hope is and will be the characteristic policy of every American manufacturer of perfumery.

English soaps.—There are five kinds of English soap, viz., Windsor, violet, benzoin, palm, and rose.

That of Windsor is made with lard and perfumed with caraway. The violet is composed of one-half lard, one-third palm oil, and the rest spermaceti. The essence of Portugal and oil of cloves form the perfume.

The benzoin is similar to the Windsor, only that, an hour before being taken from the fire, it is amal-

gamated with benzoic acid in the proportion of 10 lbs. to 200 lbs. of soap; hence its name and perfume. If the soap, however, is to be powdered, then it requires 15 per cent. of benzoic acid.

The palm soap has the natural odor of the palm oil from which it is made. Sometimes it is set off with a little essence of Portugal and oil of cloves. When the soap is for powder, 5 per cent. of flowers of benzoin should be added.

The rose soap is composed like that of Windsor, except that it is colored with vermilion and scented with essence of rose, mixed with the spirit of rose. The soaps are not perfumed until poured into the cooling-frames; because the evaporative power of the contained heat renders the addition of the essences improper, until the paste has partially cooled.

French Windsor soap.—For some years this soap was made with mutton suet alone, so that its quality was inferior to the English. It became rancid and yellow. But at the present day, a certain proportion of lard or olive oil is used, and a complete imitation is obtained. Add 25 to 30 per cent. of either oil or lard, though the former is preferable. What is lost in whiteness, is gained in quality. By this addition, the soap may be pre-

served for a long time, without diffusing the disagreeable odor of suet. Another advantage no less valuable, is, that the oil, containing more of oleine than the suet—the stearine dominating proportionally in the latter—so operates, that it unites more gradually with the lye, occasioning a longer *empatage*, and consequently a more complete saponification.

When the soap separates from its waters, and becomes clotted—in a word, when granules form, at that instant stop the fire, in order to facilitate the complete deposition of the lye. This operation requires twelve hours. At the end of that time, and whilst the soap is still warm and melted, and perfectly neutral, pour in to every 2000 pounds, 18 pounds of the mixture of the following essences.

Essence of	caraway	12 lbs.
"	lavender	3 lbs.
"	rosemary	3 lbs.

Incorporate the perfume thoroughly with the paste, taking care in mixing not to disturb the lye which has subsided at the bottom. After the perfect cooling of the mass, it is then cut into bars and cakes for market. This is the mode adopted when manufacturing large quantities. To perfume a hundred or two pounds, it is best to transfer the bars to a

vessel and remelt over a water-bath; by this method there is a better commingling of the essences with the soap, without the danger of contamination with lye. Either mode, however, is good.

Windsor soap exclusively of oil.—This article, according to Laugier—a very competent judge—though less used, is much the best kind. He maintains that those soaps made from olive oil are less liable to deteriorate, even though their saponification has been imperfect, and, besides, that they retain their perfume and whiteness longer without ever emitting the disagreeable odor of suet.

Windsor palm soap.—The oil of palm furnishes excellent soaps. The violet odor is natural, the paste mild and unctuous; but this oil, otherwise so advantageous, would be useless if there were no mode of depriving it of its coloring matter. The following process bleaches it so as to render it applicable for white soap.

Put the oil of palm in a copper kettle, and whilst melted, throw in the sixteenth of its weight of carefully powdered peroxide of manganese, and let the whole remain together at a moderate heat for eight or ten minutes, stirring constantly during the interval, and, at the end of that time, add a half of boiling water. Bring the mixture to ebullition, and

add gently of sulphuric acid, by means of a glass tube, the thirty-second part of the oil to be bleached. Stir the mass for some time, and then let it cool. The oil collects at the top of the water, the powder of manganese precipitating to the bottom.

The oil is drawn off, and by exposure to air and light becomes as white as lard. This kind of soap, manufactured by Graves, of Philadelphia, is of superior excellence.

The annexed figure represents the size and embellishment usually imparted to the cakes of palm soap.

Fig. 31.

[illegible]—[illegible] variety [illegible] It is [illegible] similar pro- [illegible] can be [illegible] are the most [illegible] for the prepara- [illegible]

[illegible], [illegible] for shaving may [illegible] or other [illegible] sparingly [illegible] the skin. These [illegible] mitigated, and [illegible] the following process, which [illegible] soaps, with- [illegible] qualities.

[illegible] 1 lb.
[illegible] 3. [illegible]

[illegible] when the solution is complete. [illegible] some drops of acetic acid to saturate the excess of alkali which almost always exists in the better-made soaps. The mixture is then distilled over a water-bath, and as much of the spirit as possible drawn off, and to the residue is added a mucilage of [illegible] gum tragacanth in water, and

the whole well mixed together. Perfume with any desired essence.

Thus prepared, the soap has lost all action hurtful to the skin, and acquired a remarkable mildness and unctuousness.

It should have been before remarked that the toilet soaps are of two kinds, those with a base of soda which are hard, and those of potash which are soft. The above process, however, is equally applicable to both species.

Savon à la rose.—(Rose soap.)

Weigh out 60 lbs. olive oil soap
40 lbs. suet soap.

Reduce the whole to small pieces or shavings with a common plane, and throw it into an untinned copper vessel, heated over a water-bath, and add about 10 lbs. of water to facilitate its solution. It is better, however, to have the soap which is to be remelted kept, as soon as made, in a damp place, so that it may retain sufficient moisture to aid its fusion; otherwise, when it is dry, the water added combines but imperfectly, and the paste dries unequally, as can be seen at the centre of any one of the cakes into which it is divided. This inconvenience is obviated when the soap is remelted solely in its water of combination. If the heat of

[illegible] constant, the fusion is [illegible] better to keep the [illegible] than uniformly at [illegible] degree for [illegible] off all the [illegible] of the soap. [illegible] necessary to produce [illegible] simultaneously [illegible]. A failure [illegible] a com- [illegible]

[illegible] add [illegible] oz. [illegible] vermilion. Stir well the mass, so as to effect an intimate incorporation of the coloring matter, then remove from the fire, and perfume with essences compounded as follows:—

5⅜ oz.	essence of	rose
2 oz.	"	clove
2 oz.	"	cinnamon
4⅜ oz.	"	bergamot.

Perfume 14½ oz.

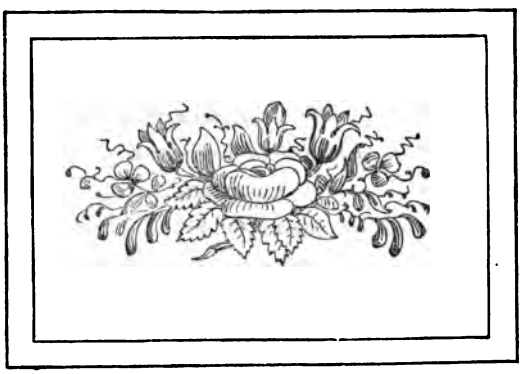
Savon au bouquet.—For 60 lbs. first-rate soap, take

8 oz.	essence of	bergamot
13 drms.	"	cloves

9 drms. essence of neroli
7 " " sassafras
13 " " thyme.

Color with 14½ oz. brown ochre.

Fig. 32.



Savon à la canelle.

To 60 lbs. good soap
40 lbs. palm soap=100 lbs.
add 14 oz. 6 drms. essence of cinnamon
2 oz. 5 drms. " sassafras
2 oz. 5 drms. " bergamot.

Color with 2 lbs. of yellow ochre.

Savon à la fleur d'oranger.

To 60 lbs. good soap
40 lbs. palm soap=100 lbs.

add 14 oz. 6 drms. essence of Portugal
14 oz. 6 drms. " amber.
Color with 1 lb. of vermilion.

Savon au musc.

To 60 lbs. good soap
40 lbs. palm soap=100 lbs.
add 6½ oz. powdered cloves
" " rose leaves
" " double pink leaves
" essence of bergamot
" " musk.
Color with 8 oz. brown ochre.

Savon d'aveline mousseux, by VIOLET and MONPELAS, *Paris*.—Notwithstanding all the properties possessed by the oil of noisettes, as well regarding its mildness as its detergent influence, no one has yet attempted the use of it in soap manufacture, on account of difficulties which have caused others to be unsuccessful.

After much trouble and many trials it has been found that the oil of noisette is *saponifiable* with a slight addition of lard. The product with a potash base being solidified by common salt, after repeated washings, contains so slight a quantity of alkali, that, even whilst still wet, it can be applied to the tongue without the least fear of any caustic action. Hence, having no bad influence upon the skin, it is

very eligible as a toilet soap. But this is not its sole merit. Its great detersive action in all kinds of water, more especially that of the river; its ready solubility, unctuousness, and abundance of lather, more rapidly produced and of greater continuance than others, serve to distinguish it from all similar productions of the present day. Besides, it is of more economical use, for, as all its particles are detergent and resolvable into lather, its employment, besides being more agreeable, will be many per cent. less costly than that of other soaps.

It is put up in oval cakes, as being the most advantageous form for use; this shape, however, is not arbitrary, but can be changed at the will of the manufacturer.

Manufacture.—After having prepared the lyes of potash of different strengths, 8, 12, 15, and 16°, by rendering them caustic with equal parts of lime, operate therewith upon three parts of noisettes and one of lard. This soap, thus composed, is made hard and solid by lyes of muriate of soda (salt) at 10°, and from that gradually diminishing. It contains in 100 parts, about

7 Potassa
64 Fatty matter
28 Water
1 Soda (salt).

It is impossible to indicate exactly the proportion of each ingredient composing the soap, because they are susceptible of being varied more or less, according to circumstances, during the fabrication.

Savon (de résine) balsamique, by MOREAU, *Lyons.*—The principal constituents of this soap, are

Purified fat	8 lbs.
Resin	8 oz.
Potash lye 36°, reduced with 2 qts. water to 10°,	20 oz.

The grease and resin are melted together, the lye then added, and a mild fire applied;—stir constantly; and when the mixture has thickened, pour in, successively, portions of lye 36°, amounting in all to 3 lbs., and continue the boiling until the soap s well formed. This soap is purified by being remelted over a water-bath, and filtered at a temperature of 104° F. Perfume with any of the essences.

Savon sable.—This is an English soap, *apparently* well made, and of good quality. It has a grayish-white color, is heavy, gravelly, rough to the touch, and being rubbed to dryness in the hands, leaves its granules of sand upon the skin. The name of sand soap, which it carries upon its label, is, therefore, not a misnomer. Experience has

proved the presence of this fine white sand. This soap, perfumed and moulded into savonnettes, exhibits every appearance of English soap, partaking of its properties to a such degree that it is not unfrequently confounded with it. By dissolution in 1000 parts in alcohol, the amount of sand was found to be 74.4. Thus it is seen that from 7 to 8 parts of sand can be employed in the production of sand soap. This sand should be very white, not too large-grained, sifted, and washed over with water several times, in order to separate those particles which are too fine.

The quantity of water requisite for the solution of this soap depends upon its greater or less state of desiccation. The paste, while yet hot, is similar to a thick pap; but when lukewarm, is a compact elastic mass, which, as soon as it has entirely cooled without being yet dry, is moulded into balls which can be handled without being sensibly indented or defaced.

There is another kind of soap, similar to the above, called in French *savon ponce*, or silicated soap. Its external appearance is different from the foregoing, but it is so mild when felt, and so like the ordinary soap, that one would scarcely suspect the presence of a foreign matter; but when used,

it creates a slightly grating sensation, and deposits a very fine precipitate upon the hands. Nevertheless, it is very detersive, and imparts a fineness to the skin; but observation has taught that its too frequent use renders the skin dry and withered. These soaps, like all the others, are perfumed with any and every odor, according as is desired; and as to envelops and trimmings, the same plan can be pursued as that adopted for the toilet soaps and savonnettes. The name and title of the soap can be varied with its color agreeably to fancy.

CHAPTER LI.

OF SUNDRY SOAPS.

THAT nothing may be left unsaid upon the fabrication of soaps, we proceed to speak of what is termed *little pan soap*, made with caustic lye of 36°.

Very hard soap, or *little pan soap*.—This soap is of a brilliant whiteness, and only contains the water necessary to its composition, and consequently is ready for market the day after being made. But if these advantages are valuable, so in proportion is their worth diminished by the great inconveniences in the use of the soap. It is of extreme hardness, scantily soluble in water, and lathers with difficulty; and, finally, after some months, becomes inferior to that made by the usual process.[1]

Generally, lard is the fat chosen to constitute this peculiar soap. Weigh exactly 40 lbs. of lard and 20 lbs. of soda lye at 36°. Fuse the fat by a moderate heat, and, when it is half milky, add 10 pounds of the lye, and agitate constantly with a

wooden stirrer, for an hour. The temperature for saponification, particularly at the commencement, should not exceed 149° F. At the end of this time add the other 10 lbs. of the lye, always having a care of the temperature. The paste, thus formed by the union of the grease and alkali, should be perfectly homogeneous, and of increasing consistency until sufficiently firm to be run into frames, when it is perfumed by the essences destined to give the desired odor. The next day the soap is sufficiently hard, and does not differ in appearance from ordinary soap, except that it requires to be more promptly cut up and caked; for twenty-four hours' delay sometimes renders it so brittle as to prevent the tablets from receiving their ornament in relief. This inconvenience, however, can be lessened by dexterous management on the part of the workman.

Superfine purified soap.—Melt over a water-bath, with rose water, or orange-flower water and fine salt, any given quantity of purely white soap shavings.

Take to every 24 lbs. soap 4 qts. rose water, 4 qts. orange-flower water, and two handfuls of salt; and when the soap is melted, strain through a fine

sieve. The day after it is taken from the frames, cut into small bars, and dry in the air, and shade.

When it has well dried, remelt, and add the rose and orange flower waters. If this is carefully done, straining is unnecessary. The soap being dried as before, becomes purged and free from bad odor. It is then pulverized, and again exposed to the air for three or four days, taking care to preserve it free from dust. The soap is now ready to receive its destined perfume, and to be formed either into cakes or savonnettes, which should always be kept in a dry place.

Savon philodermes de CAMUS.—The excellent soaps of this manufacturer gained for him, in 1827, a complimentary medal. His method is, to obtain the perfume directly from the flowers. M. Camus, as the bases of his soaps, uses lard and oil of almonds. He purifies them with charcoal, and perfumes by aromatic lyes. He puts forth as samples of his handicraft, almond, violet, rose, and other scented soaps, which are remarkable in quality, and such as should excite a desire of imitation, or a spirit of competition, among his fellow-craftsmen. The term *philoderme* is from two Greek words (φιλος and δερμα), signifying the *love of the skin*.

[illegible] — [illegible] white soap, 4 oz. [illegible] mix the [illegible] and when well in- [illegible] strain, [illegible] small tablets.

[illegible] *Derby.*— [illegible] 10 drams [illegible] soap, and a [illegible] powder the [illegible] mortar, and, [illegible] the benzoin. [illegible] benzoin and [illegible] the [illegible]

[illegible] —Take 6 lbs. [illegible] water, and, when [illegible] mixture into a [illegible] adding a pint [illegible] to make it [illegible] then reduce [illegible] until it is suffi- [illegible] smooth appear- [illegible] Then remove from [illegible] the color, taking [illegible] admixture may be uniform throughout the whole mass. After having

cooled, cut into bars. These, being dried, are again subdivided into square cakes, which, after having been pressed into shape, and ornamented in relief, are further dried by exposure to air, and then wrapped in elegantly ornamented envelops.

Vegetable soap, by DELTEIL, *Paris*.

Farina of pistachio nuts	3 parts.
Beech nuts	1 part.
Buckwheat meal, orris, and patchouli	1 part.

The perfume of the product can be varied. It may be either essence of rose, almonds, bergamot, or musk.

Savon oriental, by LAUGIER.—Mix 100 lbs. of potash with 24 lbs. quicklime, moisten with water, and continue its addition until a good lye of 33° to 35° is obtained.

To compose the oriental soap, pour into a boiler made for the purpose (with a cast-iron bottom and wooden sides half the way down), 100 lbs. of lard, and melt it with the lye above made. This lye, being turned in gradually, and in proper proportion, and the fire kept regular, the soap is formed in forty-eight hours. Transfer to covered stoneware vessels, add the perfume, and secure its thorough incorporation by the heat of a water-bath.

Agatized soaps; with *cameo*, *bas-reliefs*, and other designs.—The interior of these soaps differs in nothing from that of the ordinary soap; but their superficies is a conglomerate of materials ornamented on either side with white cameo casts, *bas-reliefs*, and beautiful antique heads.

Some are waved, others marbled; some again diaphanous and others agatized, or like aventurine quartz; each kind is differently perfumed. The figures in relief, and waved designs, are made upon the cold soap, by means of engraved dies and pressure. The form of a press suitable for this purpose, together with a sample die, is given at pp. 51–52.

Savon aux Concombres.—Take of the shavings of handsome, dry, white, inodorous soap 8 oz., and melt them over a water-bath with 4 oz. oil of sweet almonds, and 8 oz. fresh pomade of cucumbers. Mix the whole together, and then run off into frames.

CHAPTER LII.

FLOTANT SOAPS.

THESE elegant soaps are of two kinds, the opaque and transparent; and some years ago Demarsan contributed the following information relative to their manufacture.

The simple opaque soap is composed solely of the oil of cocoa, whilst the compound opaque soap consists of cocoa-butter, lard, and oil of sweet almonds in equal parts, incorporated together with soda lye.

To obtain the transparent soap, amalgamate together with this lye, equal parts of cocoa-butter and suet. This soap, perfectly purified, can be brought to such a state of transparency, that objects can be seen through tablets of half an inch thickness, as well as through glass.

The flotant soaps are the product of a mechanical operation, by which their weight is lessened one-half without a corresponding diminution of bulk. Notwithstanding their comparatively high

[illegible] which they possess give [illegible] and the article renders such [illegible] than when one [illegible]. It is always [illegible]-[illegible] [illegible].

The process of coloring and perfuming them is the same as that used for soaps generally; the only difference is in the preparation of the paste, which is submitted to a particular operation. The apparatus for the purpose is a kettle heated by a water-bath, in the centre of the bottom of which is affixed a pivot supporting a wooden beam, with arms or wings [illegible] its circumference, and turned by a [illegible] [illegible] at the top, above the cauldron. This arrangement completed, throw in 30 lbs. of almond, [illegible] or other [illegible] soap, the shavings of which cannot be [illegible] and heat it over a mild heat with 4 to [illegible] lbs. of water. By constant agitation with the [illegible] the solution is soon completed, an [illegible] froth is formed, which mounts step by step, as it were, towards the top of the kettle; [illegible] stops, for the soap has doubled its [illegible] is now dipped out into the cooling-frames. The duration of this process is only a few hours if the temperature is not too high; on the contrary, when the heat is excessive, the rapid evaporation of the water prolongs the time con-

siderably. These soaps are of very superior quality, mild and soft to the skin, and produce, with great facility, a thick and abundant lather. The mass, as above made, is perfumed to answer any desired label, and then formed into octagonal or round cakes. The wrappings or envelops should be of tasty design, and handsomely ornamented.

Transparent soap.—This beautiful soap, formerly imported from England, when first introduced, astonished both consumers and manufacturers by its brilliant transparency. Many efforts were made to fathom its mode of fabrication, but for some time without success. The process, however, is no longer a mystery, for the article is well made in large quantities, and at prices nearly the same as those of other perfumed soaps. It is hard, of inconvenient use, and in time assumes a disagreeable odor; nevertheless, a handsome and captivating article is sure of an extensive sale.

To make it on a large scale, take of alcohol and finely shaved white suet soap, *perfectly dried*, equal parts, and distil them together over a water-bath so as to save the alcohol. Let the heat be so regulated as not to exceed 100°; otherwise, the evaporation being too rapid will cause an imperfect solution. With these precautions, the soap soon

liquefies. Let the mass rest now, and after some hours decant, free of sediment, into tin frames or forms, of the shape and design intended for the soap. This soap, thus made, is not entirely transparent until it is perfectly dry—sometimes not until three or four weeks. It is then planed and formed into tablets or cakes in the manner employed for the other soaps. The coloring matters are preferable in concentrated alcoholic solution: thus, for instance, impart a red with tincture of alkanet, a deep yellow with tincture of turmeric.

Transparent soap, second method.—Take of perfectly dry, pulverulent white soap, 2 lbs., alcohol, 36° B., three quarts; heat gently together over a water-bath, and when the solution is complete, perfume, and turn out into forms.

When cooled, divide it into cakes, one-third thicker than their designed size, so as to allow for contraction by evaporation.

Sweet Almond Soap.—As this is a high-priced superior soap, the choice of raw materials should be strictly select; for instance, the oil of sweet almonds must be free from rancidity, and the carbonate of soda perfectly pure. Dissolve the soda in water, and add one-third of its weight of hydrate of lime; stir the mixture frequently, and, after

some hours' repose, filter and concentrate this lye by evaporation until it marks 36°. Take twelve parts thereof, to 24 parts of oil, adding it little by little to the oil, and stirring constantly until the mixture has the appearance of a soft fat. In two or three days the consistence becomes such that it can be transferred to moulds of delftware, which are to be kept in a temperature of 70° F.

In about a month it can be taken from the forms. The temperature of the lye should be between 50° and 60°. But if the soap must be made more rapidly, boil the mixture, taking care to add a little warm water now and then to the lye, to counteract concentration, which is occasioned by the evaporation of the water.

The sweet almond oil soap, well prepared, is beautifully white, and of a mild odor and savor. When dried, it becomes hard enough to be formed into powder by pulverization.

In boiling soap, the increase of facilities has superseded the use of the old-fashioned curb and kettle, for which clean cedar vats are now substituted. These are heated by injection of steam, from an ordinary steam-boiler, through welded wrought-iron, or copper pipes or worms.

[illegible]

[illegible]

[illegible]

[illegible]	[illegible] lbs.
[illegible]	[illegible] lbs.
[illegible]	[illegible] lbs.
[illegible]	[illegible] lbs.

[illegible] with one-eighth [illegible] and perfume with [illegible] essence of [illegible] lemons.

Naples soap, liquid.—Take [illegible] lbs. shavings of good white soap and melt in [illegible] pints of rose and orange flower water. [illegible] liquid [illegible] lbs. of [illegible] flour, [illegible] the mixture, put in 4 oz. powdered bergamot peel for coloring, then strain and perfume as for the soaps

in tablets. In default of oil, when the soap is melted, add 2 quarts of good essence of soap; leave it for 15 minutes to thoroughly incorporate, and then strain and perfume.

If by age it becomes dry, moisten with a little rose or orange flower water. The liquid soaps are susceptible of every variety of perfume.

Toilet soft soap.—This fabrication is simple and easy. The only difficulty is in not being always able to arrest the evaporation at the same point, in order that the soap shall have a uniform consistence. The fat employed is lard, of which weigh out 30 lbs. and mix with 23 lbs. caustic potash lye 17°. Gradually raise the heat to boiling, and prolong only so long as is requisite to form a perfect paste and thorough union of lye with the grease; after this, accelerate the evaporation of the water as rapidly as possible by a steady continuance of this same temperature, until vapors cease to be given off. At this stage arrest the ebullition, for the paste has become too thick to be stirred freely. It is of snow-white brilliancy, if the lye and grease employed are pure and clean and demi-solid, and always preserves the same appearance. If the paste has not been sufficiently cooked, it will soon be apparent, for on the same or next day it will

[illegible] avoided and [illegible] an adequate [illegible].

[illegible] only within a [illegible] properly making this [illegible]

[illegible]

[illegible]

[illegible] stoneware vessel, heated by [illegible] temperature; agitate con[illegible] and when the grease [illegible] pour in only one-half [illegible] stirring, and keeping up [illegible] The *empatage* [illegible] afterwards, when [illegible] the surface and the granulated [illegible] precipitates, and the [illegible] This completes the paste, [illegible] granules. Having thus con[illegible] for four or five hours, the mass has become so firm and compact that it cannot be [illegible] and hence must be gently frotted or beaten. At this time stop the fire, and place the vessel in warm water, that it may gradually cool.

This soap, thus finished, is not pearly; that property must be developed by a thorough trituration

in a marble mortar. All its particles, which previously seemed separated, unite and form a perfectly homogeneous mass.

The perfume generally given is that of oil of bitter almonds, and hence its name.

Crême d'ambroisie.—Perfume with liquid storax and benzoin.

[illegible]

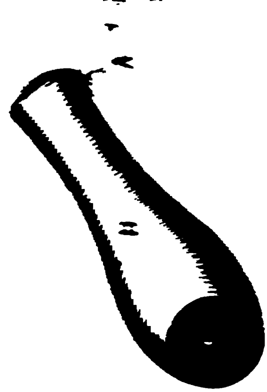
[illegible]

[illegible] the liquid [illegible]

[illegible] This [illegible] conical glass [illegible] which are worn [illegible]

[illegible] which is a [illegible]. It is

Fig. [illegible]



a very hard wooden plug eight inches long, smoothly turned and scooped at C, so as to present a hemispherical indentation of an inch or two. The edges are very sharp. By catching the thumb in the loop A, and grasping the handle at B, it can be readily worked without the danger of breaking, and thus injuring the hand, as is the case with a wineglass. The manipulations with this circular knife are performed in the following manner: —

Holding the piece of soap in the left hand, revolve it to and fro over the edges of the trimmer, until it becomes perfectly relieved of its superficial ruggedness, and assumes a smooth, spherical shape.

In this way the regular round-shaped balls, or savonnettes, are made. The squares of soap approximating to the intended size of the savonnette, into which the bars are previously divided, must be deprived of their angles and then put in a rough shape with a knife, so as to facilitate their turning upon the sharp edges of the cutter. When properly shaped and wiped off, they are put by in a suitable place to dry.

The colors of savonnettes.—The soap-balls are colored *yellow* by mixing in a sufficiency of alcoholic tincture of turmeric; *green*, with the juice of herbs, or, what is better, the green tincture; *brown*, with

umber; *yellow*, with orange powder, or a little yellow ochre; *red*, with vermilion, pulverized rose leaves, or carmine; *blue*, with a very small quantity of indigo. These shades ought to be very clear and distinct; otherwise, a handsome white ball is preferable.

Common savonnettes.—Take 6 lbs. finely minced soap, and melt it in a pint of water previously boiled with the juice of half a dozen lemons, and strain through a cloth. To the still-melted soap add 3 lbs. of starch, and a drop or two of essence of lemon; mix and knead the whole into a paste, of which form the savonnettes with the hand, to be trimmed when dry, as before directed.

Savonnettes à la vanille.—Take 12 lbs. prepared soap, 8 oz. vanilla, 4 oz. storax, 4 oz. benzoin; bruise them very finely and melt together over a water-bath with rose water, and leave to digest for some days. At the end of this time, remelt and express through a thick cloth, taking care to exhaust the marc with a pint of rose water, and press again. This odorous saponaceous water serves for kneading the soap. Mix together 4 oz. essence of vanilla, 4 oz. tinct. balsam Tolu, 2 oz. balsam Peru, 1 oz. tinct. cinnamon, 2 drms. oil of cloves, 1 oz. essence of amber and musk, and add to the soap proportionally.

Color with ½ oz. of brown powder *à la vanille*, and form the savonnettes as before.

Savonnettes au neroli, or *à la fleur d'oranger*.—Take 12 lbs. prepared soap, rub up with a little orange-flower water, adding one pound of powdered orris, and 3 oz. pulverized orange peel, to give a deep color. Perfume, while triturating, with 2 drms. essence neroli to every pound of soap, and when it has been well rubbed up and kneaded, add 4 drms. essence amber and musk.

CHAPTER LV.

SOAP POWDERS.

Powder of Windsor soap.—Take of very white and dry Windsor soap, powdered and finely bolted, melt it over a water-bath with but a very little water, so that it will dry the sooner, and be less liable to be soiled in mixing. When melted, transfer to frames; and when cooled, divide it into bars; these, when dry, are to be powdered.

Powder of savon onctueuse.—After having frotted the soap, as before directed for the *savon demi-lourd*, cut into thin slices. These, when perfectly dry, are powdered and sieved. This is lighter, and lathers more freely.

Soap powder, perfumed *à toute odeur.*—The preceding powder, when melted, is perfumed to any odor desired: for instance, to answer the above title, use to 6 lbs. of soap, 4 oz. essence of bergamot, 1 oz. essence of lemon, ½ oz. essence of Portugal, and ½ oz. essence of anise or fennel.

CHAPTER LVI.

ESSENCES OF SOAP.

Essence de savon de corinthe.

Alcohol 30° B.	1 quart.
Dry white soap	9 oz. 6 drms.
Potassa	1 oz. 7 drms.
Essential oil, for perfume,	some drops.

Rasp the soap, put it in a vessel with the alcohol, and heat together over a water-bath, to perfect solution. Perfume with any desired essential oil. Add animal charcoal, and filter when the whole is cold. Thus is obtained a liquid, marking 30° B., which lathers readily with water.

Essence de savon d'Italie, à la rose.

White soda soap	10 parts.
Alcohol 34° B.	34 parts.
Rose water	34 parts.

Digest at a mild heat, and filter. If orange-flower water is substituted for rose water, an essence of corresponding odor is obtained.

Essence of soap de Barière, à la bergamote.

White soap	1 part.
Alcohol 18° B.	4 parts.
Oil of bergamot	*q. s.*

Essence of soap *de Vienne, à la lavande.*

Soap	3 oz.
Salt of tartar	1 drm.
Alcohol of specific gravity .910	18 oz.
Distilled lavender water	6 oz.

Digest and filter.

The perfume can be varied by using different essences.

CHAPTER LVII.

OF PHARMACEUTICAL PRODUCTS.

THIS very limited branch of the perfumer's art comprises—1st. Vulnerary waters; 2d. Cachou and pastilles for disinfecting the breath; 3d. Sundry remedies for trifling accidents.

1st. VULNERARY AND OTHER WATERS.

Eau de mélisse des carmes, réformée.

Fresh balm	13 oz.
Angelica	2¼ oz.
Hyssop	1½ oz.
Marjoram	1½ oz.
Thyme	1 oz. 5 drms.
Rosemary	1¼ oz.
Cinnamon	1½ oz.
Coriander	1½ oz.
Cloves	1¼ oz.
Nutmeg	1¼ oz.
Anise	½ oz.
Lemon peel	1 oz.
Alcohol 22° B.	9 lbs.

After some days' maceration, distil over a water-bath and rectify.

Eau vulnéraire, simple—compound.—Take a handful of sage leaves, angelica, absinthe, savory, fennel, hyssop, balm, sweet basil, rue, thyme, marjoram, rosemary, serpolet, vervain, and lavender flowers, and infuse together for eight or ten days, in 6 quarts of alcohol 25° B. Then inclose them in a bag, in order to prevent their adherence to the bottom of the still, and conclude in the same manner as for the ordinary *eau de mélisse.*

Eau d'arquebusade (distilled water) *de Lausanne.*—This vulnerary water is renowned for its efficacy in cuts and contusions.

It is more conveniently made in June or July, when its ingredients are most readily to be had.

For 24 quarts, take

Absinthe	5 lbs.
Comfrey—leaves, flowers, and roots	1 lb.
Mugwort	1 lb.
Bugloss, sage, and betony, each	1 lb.
Ox-eye and saucile, of each	1 lb.
Blind nettle and Easter daisy, each	1 lb.
Plantain, vervain, each	1 lb.
Fennel, veronica, St. John's wort, each	8 oz.
Pilosella, hyssop, rosemary, each	8 oz.

Long hardwort, dwarf centaury	8 oz.
Milfoil, mint, tobacco	8 oz.
Marjoram, thyme, chamomile	8 oz.
Sweet basil, angelica, root and bark	8 oz.
Balm	4 oz.

Bruise these plants, and infuse them for 3 days in 24 quarts of alcohol and 6 quarts of water. Distil, and run off the alcohol.

Eau de la reine de Hongrie.—This water, much resembling the spirituous water of lavender, is composed thus:—

In 6 quarts of spirit 32°, infuse for three days 1½ lbs. of tops and flowers of rosemary, ½ lb. rose leaves, ¼ lb. orange flowers, 4 oz. barberry. Filter, and add a quart of rose water. To render it more agreeable, add a quart of orange-flower water, and distil over a water-bath.

Eau de balsamines, for wounds.—This liquor, known under the name of *Baume des Chartreux*, is made by exposing the balsamine flowers, hermetically confined in a bottle, to the heat of the sun, until a goodly portion of them have deliquesced. Then filter and bottle up.

Headache liquor.—Take

Ammonia	4 oz.
Camphor	2 oz.

Oil of anise	1 oz.
Alcohol	1 lb.

Dissolve the camphor and oil of anise in the alcohol, and then add the ammonia.

Eau de botat.—Take

Anise	1 oz.
Cloves	2 drms.
Cinnamon	2 drms.
Oil of mint	1 scruple.
Brandy	1¾ lbs.
Tinct. of amber	1 drm.

After six days' infusion, filter. This water is a dentifrice.

Eau de luce.—First prepare the following tincture:—

Black soap	2 drms.
Mecca balsam	2 drms.
Rectified oil of amber	1 oz.
Alcohol	12 oz.

After two weeks' maceration, filter.

To prepare the water, take

Aqua ammonia 22°	1 oz.
Distilled water	1 oz.

Shake well together, and add some drops of the above-made tincture.

The dose is a few drops in a tumbler of sweetened water, in cases of swooning, &c.

Chaptal's water, for chapped breasts.

Sulphate of alumina	1 drm.
Sulphate of zinc	½ oz.
Borate of soda	4 grs.
Rose water	6 oz.

Lye water.—In a pint of water, dissolve 6 grains sulphate of zinc, and 31 grains powdered orris root. Cork up the bottle, put it in a cool place, and after twenty-four hours the preparation is complete.

Eau divine, fragrant and stomachic.—Take 2 drms. essence of bergamot, 1½ drms. essence of lemon, 8 oz. orange flowers, 4 quarts alcohol, 30°, and 7 quarts water. Infuse for a week, and then filter through brown paper.

Eau d'or.—Take the peels of two or three lemons, and ½ drachm of mace; add two quarts of brandy, and distil over a water-bath. To render it more fragrant, digest with half a pound orange flowers, and color with tincture of saffron. Filter, and bottle up.

This water is fragrant and stomachic.

CHAPTER LVIII.

PASTILLES—CACHOUS AROMATISES, FOR DISINFECTING THE BREATH.

THE pastilles of *cachou*, it is true, have the property of perfuming the breath, but unfortunately they do not destroy its fetid odor. The preparation of the following excellent pastilles is recommended. The receipt is from Chevalier's work upon charcoal and its use.

Pâte de cachoudé.—This paste is agreeable to the taste, and gives a sweet breath. It is obtained by triturating equal parts of cachou calamus and a kind of talc.

Cachou à la violette.—Take 4 oz. cachou in powder, 12 grains pulverized orris, 1½ lbs. sugar, make the whole into a mucilage with a solution of 4 drachms gum tragacanth in water, and add some drops of extract of acacia or violet. Previously, however, reduce some liquorice to a paste, with a little mucilage, in a scalded marble mortar, and

with a wooden pestle; mix in the sugar and cachou, and triturate until the mass is homogeneous; then divide it into small pieces, the size and form of oats, by a mode similar to that used by the confectioners for making anise-drops. Thus made, they are sometimes powdered over with silver bronze, and boxed up handsomely.

Cachou à la rose.—Take 4 oz. pulverized cachou, 1½ lbs. sugar; arrange this mixture in alternate layers with rose leaves, and let the contact continue for twenty-four hours, stirring two or three times during the interval; then sieve, and repeat the operation with fresh flowers three or four times. The cachou having acquired sufficient odor, the whole is made into a paste, with a solution of gum tragacanth in rose water, a drop or two of essence of amber, and as much essence of musk. It is then formed into granules as before directed.

In default of the rose leaves, make use of essential oil of rose, but in very minute proportion, because its acrid taste, when in too large quantities, is disagreeable and unpleasant.

Cachou à la vanille.—Use the same quantity of cachou and sugar as above; then take 1½ oz. good vanilla, thoroughly triturate it in a marble mortar,

with the sugar and cachou, until perfectly reduced. Mix the whole into a paste with mucilage of gum tragacanth and rose water, to which a few drops essence of amber and vanilla have been added.

Cachou inodore.

Cachou, finely powdered
White sugar
Gum tragacanth
Water.

Mix as before directed.

Pastilles for bad breath.

Chocolate	3 oz.
Charcoal	1 oz.
Sugar	1 oz.
Vanilla	1 oz.
Mucilage	*q. s.*

Make into lozenges of 5 grains, and take 4 or 5 daily.

Preparation for bad breath.—The treatise upon chlorine by the same author, furnishes the following recipe:—

Dry chloride of lime	3 drms.
Distilled water	2 oz.

Powder the chloride of lime in a glass mortar, and then add a part of the distilled water; stir up

and let it repose for some minutes; decant the clear liquor. Add a new water to the residue, triturate, and after sufficient rest, again draw of the clear liquor. Repeat this washing and decanting a third time; add all the clear solutions together, and filter. To the liquid running through, add 2 oz. alcohol, 36°, in which 4 drops oil of rose and 4 drops of any other desired oil are dissolved.

The solution, thus prepared, removes the fetid odor of diseased gums. The dose is half a tablespoonful in a tumbler of water, with which the gums are moistened daily by means of a sponge or brush.

Keep the bottle always closely stoppered to retard decomposition.

Pastilles for bad breath.

Chloride of lime	5 drms.
Vanilla candy	3 drms.
Gum Arabic	5 drms.

Make the lozenges into weights of 10 or 15 grains, and take one or two after smoking.

The chloride of lime is used in solution (made as before), and the candy and gum are rubbed up with it. An addition of starch will rectify any excessive liquidity.

Perfume, for hysterical and melancholy persons.

Souchet root	1½ oz.
Orris "	1 oz.
Yellow sanders	½ oz.
Rose wood	½ oz.
Orange and lemon peel	½ oz.
Cloves	1 drm.
Vinaigre roset	4 oz.

This perfume is to be burnt in a cassolette.

CHAPTER LIX.

SUNDRY REMEDIES FOR TRIFLING ACCIDENTS.

Nipple liniment, by DR. SIGERBUNDI, *Doruston*.

Aqueous extract of opium	1 grain.
Fresh limewater	3 drms.

Oil sweet almonds, fresh and cold pressed, 3 drms.

Mix the whole, and preserve in a covered pot. The label should direct the application of this liniment by means of very fine lint, and that the nipples be covered with a piece of skin spread with wax, a hole being left open in the centre to permit the free passage of the milk.

Pomade (for healing slight tumors).

White pitch, pure	1 lb.
Resin "	1 lb.
Yellow wax	1 lb.
Gum ammoniac	12 oz.
Oil of hemlock	4 oz.

Spread upon sheepskin, and apply the plaster to the sore.

ade souveraine, by LAFORET (for the cure of corns). Take 1 oz. black pitch, ½ oz. galbanum, and one scruple of sal ammoniac, dissolved in vinegar; add 1½ drm. diachylon. Take only sufficient to cover the corn, and spread it upon a piece of sheepskin. After some days remove the plaster, and the corn comes with it.

Céra fortifant (for the nails).

Oil of lentise	½ oz.
Salt	½ drm.
Resin	1 scruple.
Alum	1 scruple.
Wax	1 scruple.

Huile de Léontine (for the nails).

Mix together	Oil of bitter almonds	2 oz.
	Oil of tartar	2 drms.
	Essence of lemon	6 drops.

Put up in small vials, and let the label direct a frequent application when the nails are weak or loosened.

ENGLISH COURT-PLASTER.

1*st Process.*—Stretch upon a frame a piece of thin black silk, and with a camel's-hair brush pass over it three or more coats of isinglass, dissolved in boiling water. To give the silk an agreeable

Mode of bleaching sponge.—Soak the sponge in cold water, which must be changed every two or three hours, and express each time all liquid from the sponge. Continue this operation for five or six days;—the sponge will then be soft, and in a proper condition for being bleached. If, on the contrary, warm water has been used, the sponge will be hard. Should the sponge contain any white pearly matter, plunge it into a solution of one part muriatic acid to 20 parts of water. These granules, being principally carbonate of lime, are decomposed, the carbonic acid escaping by effervescence and the lime forming a soluble salt with the muriatic acid, which must be thoroughly washed away in repeated waters.

The sponge, squeezed out, is now put in a bath of sulphurous acid of specific gravity 1.024. After a week's saturation, and daily removal and expression during the interval, it is soaked again in pure fresh water for twenty-four hours, then perfumed, and dried in the air.

Besides the articles already mentioned, there are others which, though not manufactured by the perfumer, are generally kept on hand for the accommodation of customers: for instance, wigs, curls, hair-pins, razors and strops, sponges, glass flagons of every variety, size, and color, assorted hair,

cloth, and teeth brushes, and toilet furniture generally.

A toilet can be arranged and furnished according to taste, where there is more regard to convenience and comfort than expense of outlay. The *necessaries*, however, for a dressing-table and washstand, are two cakes of fine soap, a box of dentifrice, a pot of pomade for the hair, and a box of lip salve. These are to be found at most of the perfumers, in neatly fitted cases, arranged so as to contain all the requisites from a perfumer's shop. They are, generally, of prices corresponding with the elegance of their preparation.

CHAPTER LXI.

APPARATUS FOR EXTRACTING THE ODOR, TASTE, OR COLOR OF SOLUBLE MATERIAL.

THIS useful apparatus consists of the following parts: *a*, is the boiler or caldron; *b*, the reservoir to contain the extract. *z*, the box for the reception of the material to be acted on, is a cylinder with two perforated plates *h h* and *n n*, the holes in *n n* being very small. This plate serves as the filter, and the openings in *h h* being merely for the passage of extracts, are not necessarily so fine. The plate *n n* is surmounted by another thick

Fig. 34.

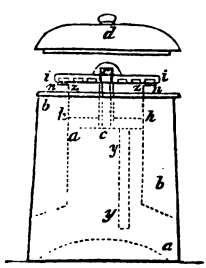


plate *i i*, similarly pierced with holes throughout its entire superficies;—it is fastened upon the tube *c c* by the female screw *c c* cut through its centre, thus closing the tube and retaining the material in the box *z z*. The whole is shut in by a top or cover *d*.

To charge the caldron *a*, pour the liquid to be used into the box *z*; thence it passes through the tube into the vessel *a*. Then fill the box *z* with the material to be extracted, screw the plates *n n* and *i i* in their respective positions, place on the cover, and apply heat by lamp or otherwise.

So soon as the liquid begins to boil, the elastic force of the vapor produced within the caldron *a a*, forces the liquid to mount through the tube *y y* across the plate and material contained in the box *h h*, then to filter through the plate *n n*, and finally to pass (charged with extractive matter) through the openings of the plate *i i* into the reservoir *b b*, whence it is drawn off for use.

This apparatus is also very convenient for making coffee. The sizes are variable, and should be regulated with regard to the quantity of material to be acted upon.

CHAPTER LXII.

CONCLUDING REMARKS.

THE rapid stride of improvement in every branch of art, at the present day, and the necessity which it induces of taking a lively interest in all fashionable as well as beneficial changes, have created a spirit of competition among makers and venders, which has resulted in improving the quality of manufactured products, in reducing their price, and, to a great extent, extending their sale. Of all devices and arrangements none tend so much to promote the sale of an article, as the happy design and tasty embellishment of its paraphernalia. A handsomely enveloped tablet of soap, with gorgeous trimmings, will be more likely to win a purchaser than the unpretending cover-lacking savonnette, the sale of which depends solely upon its good quality; and the flagon of Cologne or richly cut decanter of fragrant spirits, will be more attractive than the plain bottle, though the latter may be filled with contents of finer odor and of greater

value. It is the eye that must first be pleased. If this be engaged, a customer is made who can always be retained, if the excellence of the article accords uniformly with the elegance of its outfit. On this mainly depends the ultimate fortune of the perfumer. To a strict pursuance of this policy we may attribute the large and extended trade in perfumery which the French metropolis enjoys. The refined taste of the Parisians, the low price of their valuable labor, their ingenuity in design, and their neatness as well as expertness of execution, contribute to make Paris the most advantageous of all places, for the purchase of the finer kinds of furniture, trimmings, envelops, labels, and such like requisites for the packing-room of a perfumery. There are, however, presses in this country which issue the two last-named articles, approximating to the French in elegance and cheapness; and they deserve very liberal encouragement. Therefore it is better, and, I may say, more patriotic, in these non-tariff times, to limit the importations of articles to those only which cannot be produced here.

Great attention should be bestowed upon the manner of putting up the perfumery. Let it be done neatly and elegantly. A little additional

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