The cream of beauty : a little book of beauty culture, containing many recipes for useful toilet creams and lotion / by H. Stanley Redgrove.

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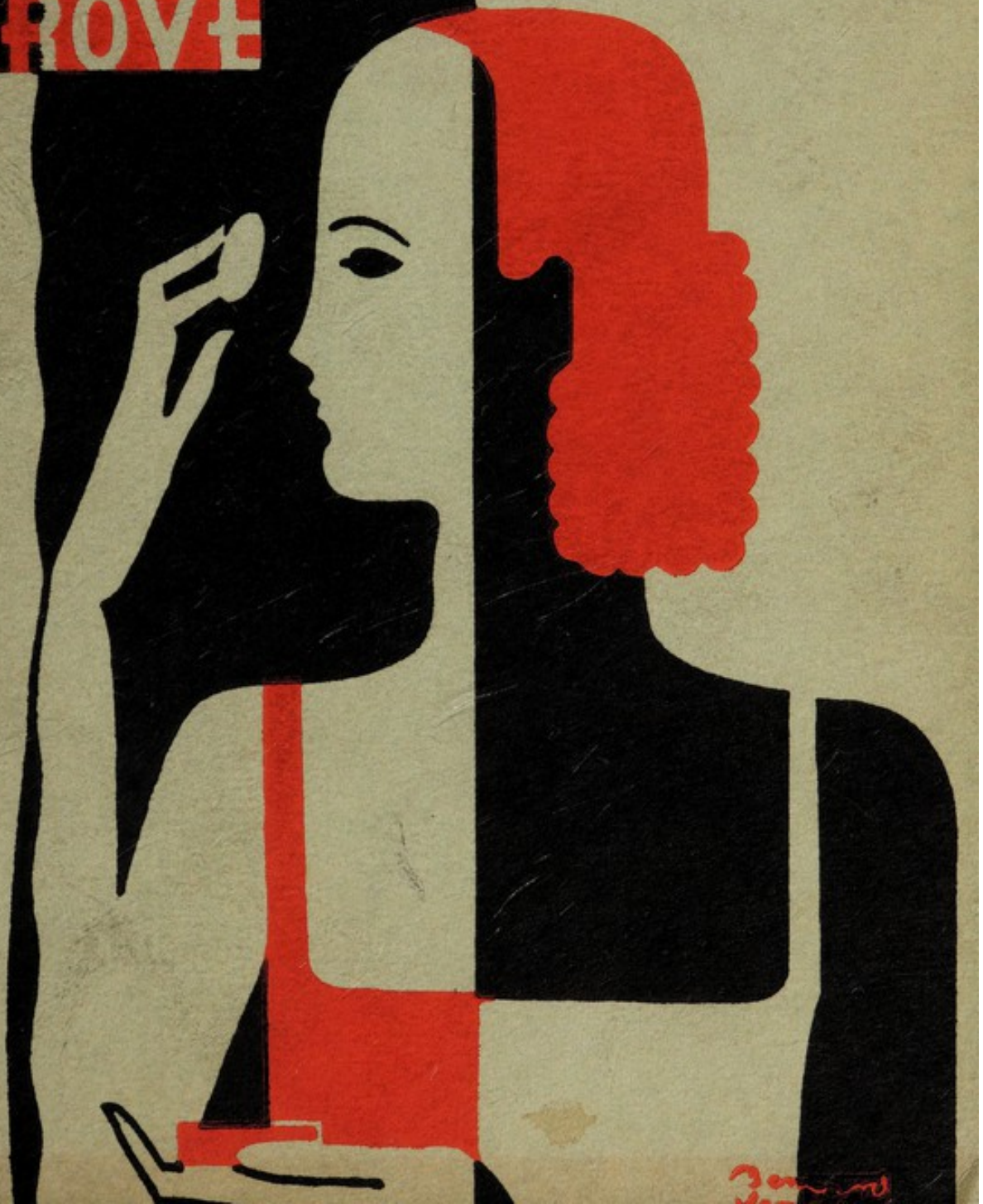
BY H. STANLEY REDGROVE



W. N. Goldsmith.

London, July 1931.

THE CREAM OF BEAUTY

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A LITTLE BOOK OF BEAUTY CULTURE, CONTAINING MANY RECIPES FOR USEFUL TOILET CREAMS AND LOTIONS

By

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"'My face is my fortune, Sir,' she said."

(Old Folk-song.)

8, Saxon Road,
Selhurst, S.E. 25,

January 1*st*, 1931.

My Dear Eve,—*Thank you for your letter. You tell me that you have heard that a doctor has written an article in a medical journal condemning all cosmetics as injurious, whilst another has written contradicting all the first one said. You want me to tell you what I think, especially as—so you are sweet enough to say—those creams I made for you a little while ago were "so very nice." You want me, I gather, to let you a little into the secrets of the cosmetic art, though I note you add, "not too much chemistry and scientific stuff, old chap."*

Well! Here is my reply. I hope you will like it and that it will meet your needs, though I've had to introduce some "chemistry and scientific stuff", because I want to tell you not only what is good and what is bad for your hair and skin, but why it is so.

I know you're a bit fastidious, and so, before sending you this reply, I've persuaded my wife

and some other ladies—my good friends, Miss Violet Venables, Miss E. Surridge and Miss A. Johnson—as well as Dr. Johnston Abraham, to read it. I hope you'll forgive me this liberty and that you'll find my reply the more interesting for the useful hints they have given me.

In these days when cosmetics are so widely employed, it is quite right that you should demand a simply worded account of them, telling you how they are made and explaining—in short—their use and abuse. Charming as you are, you feel that the right cosmetics, properly used, may add to your attractiveness ; but you are alive to the disastrous possibilities of their misuse and you distrust the extravagant claims made for certain proprietary articles.

If, my dear Eve, by sending you this reply, I shall have been instrumental in adding to your beauty and charm, I shall feel well repaid for my labours.

With my very best wishes,

Believe me,

Your sincere friend and devoted admirer,

H. STANLEY REDGROVE.

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THE CREAM OF BEAUTY

CHAPTER I

INTRODUCTION

FROM the earliest times of which we have any record, throughout the entire history of the human race, woman has set before herself an ideal of personal loveliness which she has sought to attain by every means within her power. Sometimes she has been praised for this ; sometimes she has been criticised. We are now coming to understand that in her quest for beauty she is fulfilling a biological need. She is doing something which, in fact, is natural to her and which, therefore, she should be encouraged to do. But whether encouraged or not, her quest for beauty will continue.

Sometimes she has cherished an ideal of beauty of a very artificial character ; sometimes she has used means very ill-adapted to achieve her purpose. To-day she is beginning to realise

that beauty means Nature at her best, and her appeal to men of science for their aid in the achievement of her purpose is by no means being ignored.

THE CURE OF UGLINESS

For long, the medical profession as a whole were so intent upon the many problems presented by the grievous bodily ills of mankind that they were able to give scant attention to the relatively minor one of ugliness. Whilst it was freely recognised that beauty had its basis in good health, it was by no means clearly realised that any departure from beauty constituted an ill which called for curing.

The result was that the field was left free for quacks, who readily exploited woman's desire for beauty, often with extremely disastrous results, their nostrums proving not merely useless, but oft-times positively harmful.

In the domain of cosmetics, quackery is by no means dead to-day. In the Press there still appear advertisements of face creams, skin foods, hair restorers, and the like, for which claims are made that no preparations of the type in question could possibly fulfil. Nevertheless, great improvements have taken place, improvements which, no doubt, are responsible in part for the

greatly increased use of cosmetics in recent years, and for which we have to thank advances in chemical and dermatological knowledge. To-day, whatever old-fashioned folk may think of the modern young woman, with her vanishing cream, face powder, lipstick, rouge and eye-brow pencil, and in spite of the fact that she often spoils rather than improves her appearance by an injudicious use of such aids to beauty, the fact remains that, speaking generally, these vanities of hers are quite harmless.

ANCIENT COSMETICS

The eyebrow pencil, it is interesting to note, is the lineal descendant of the oldest cosmetic in the world. Women in ancient Egypt used certain preparations for darkening their eye-brows and eyelashes, and in the tomb of Queen Shubad, recently excavated at Ur, curious vessels shaped like cockle shells were found, which had originally contained cosmetics for the queen's use in the world of spirits. At one time the Egyptian preparation, or " kohl," as it was called, was made from a poisonous mineral containing antimony. The modern eyebrow pencil is made from lampblack, mixed with suitable fats and waxes, whilst the little blocks made for darkening the eyelashes are similarly

made from lampblack and soap. Both are quite harmless.

Grandmama, who strongly objects to young ladies painting their eyebrows or lashes, does not take at all the same view concerning the propriety of wearing a diamond ring. But lampblack and diamond are both forms of the same elementary substance, carbon ; and, looking at the question quite dispassionately, one might well ask why one method of decorating the person with carbon should be permissible and not the other. Indeed, the diamond ring is, in every sense, the more artificial adornment of the two, for the girl who skilfully paints her eyes is really endeavouring to imitate Nature at her best.

THE ARTISTS OF THE FUTURE

In one of his visions of the future, H. G. Wells has pictured a time when artists will be engaged in painting not pictures on canvases, but pretty women's cheeks in order to make them still prettier. The hero of his story falls asleep to awaken in the year 2100. At a society gathering of the period, he inquires of a very charming and seemingly young lady if any painters are present. She pauses, as if uncertain of his meaning, and then tells him that the art of making pictures is no longer held in

esteem. Noticing her hesitation, he asks what she had at first thought he meant.

" She put a finger significantly on a cheek whose glow was above suspicion, and smiled and looked very arch and pretty and inviting. ' And here,' and she indicated her eyelid."

Perhaps Wells never intended this prophecy to be taken quite seriously. But there is a serious side to it ; and to-day the art of *maquillage* (for which we have no English word save the horrid one " making up ") is receiving far more attention than in the past.

ARTIFICIAL AIDS TO BEAUTY

To-day we are able to consider rouge and similar cosmetics quite dispassionately, and to arrive at a just estimate of their æsthetic and hygienic value.

Undoubtedly, many women who do not need their aid use rouge and lipstick because to do so is the fashion ; whilst there are plenty who choose the wrong shades for their particular complexions. On the other hand, there is not the slightest doubt that a judicious application of a little colour frequently improves the appearance.

Beauty is good to contemplate. It is an end in itself. Does it really matter if the beauty

produced by such cosmetics as these is artificial, produced by the skill of the chemist? At the best, we are told, beauty is but skin deep.

Moreover, such artificial aids to beauty as these have a definite hygienic value. The consciousness of presenting a good appearance to the world, which they create in the mind, is well calculated to react beneficially on the body, thus helping towards the achievement of that state of perfect health when, perhaps, their aid will no longer be necessary.

I would not have it thought, however, that the science and art of cosmetics is concerned solely with such artificial aids to beauty as these. Indeed, in this book I shall have relatively little to say about this class of cosmetic, with which, in collaboration with my friend Mr. G. A. Foan, I have dealt in detail in a work entitled *Paint, Powder and Patches*, devoted to the *maquillage* of the theatre. We must regard such cosmetics as rouge, lipstick and the like as constituting the last resources of the cosmetic art or as merely the means for putting the finishing touches to a beauty based on good health.

HYGIENIC COSMETICS

As well as such artificial aids to beauty, we must include as cosmetics various simple pre-

parations employed to preserve the natural beauty of the hair and skin, and also, without trespassing on the domain of medicine, equally simple preparations which by their medicinal action may usefully be employed to remedy slight defects.

It is here, perhaps, that quackery is most in evidence to-day. Some seemingly slight defects are really slight and may well be treated by means of hygienic measures. Others are of quite a different character. Some women, for example, regard freckles as constituting a blemish. But woe betide the woman who imagines that this blemish is one that may be remedied without medical aid. If she uses some quack cream "guaranteed" to remove freckles, she must consider herself lucky if the worst that can be said of it is that it *does nothing* at all.

CLEANLINESS THE FIRST ESSENTIAL

Though sound health may not eventuate in the beauty of a Venus de Milo, there can be no true beauty which is not based on health. And the basis of health is hygiene. Attention to bodily hygiene, therefore, is the first essential for every woman who desires to be lovely. And to-day we realise much more clearly than in the

past that beauty is not something which resides in the face only, nor in any one part of the body, but in the whole.

We realise, too, that the basis of hygiene is cleanliness of the most scrupulous character, a cleanliness which extends not only to the outside of the body, but also within. Perhaps one of the greatest foes to a beautiful skin is the form of internal uncleanliness known as constipation. It is not within the province of this book to discuss the best methods of dealing with this trouble, which is so common to-day, apart from emphasising the importance of a correct diet and of plenty of exercise in the fresh air. Women are sometimes advised that dancing constitutes an excellent form of exercise, but the overheated atmosphere of the ballroom, heavily charged with carbon dioxide from many lungs, is the last place in which to find good health.

CLOTHING

Moreover, clothing which in any way restricts the free movement of any part of the body should never for one moment be tolerated. Tight shoes and corsets are two abominations which fortunately are far less in evidence to-day than in the past. The sports girl who

threw away her corsets set a fashion which has benefited Englishwomen enormously. Not only is the wearing of corsets extremely unhealthy, but the " figure " produced by their aid is very far removed from that of Nature, and hence of beauty.

The very short frock of the modern English sports and business girl is much to be commended on hygienic grounds, apart altogether from the fact that no style of dress more pleasing to the eye has been designed in recent years. The added freedom is a great asset ; moreover, any style of dress which allows light and air in moderation to reach the body is to be commended. Under the action of the ultra-violet rays present in sunlight, a constituent of the natural secretion of the sebaceous glands with which our skins are studded all over is converted into vitamin D, whose great importance to good health is now fully realised. The recent attempt to reimpose the burden of long dresses must strongly be deprecated.

PERFUMES

We must not, however, limit our ideal of beauty to that which appeals to sight alone. It is the total impression of her personality which causes us to declare a woman beautiful or not.

The added charm which a carefully chosen perfume gives should not, therefore, be forgotten. Cosmetics themselves are nearly always perfumed, and the study of cosmetics and that of perfumes has always gone hand in hand.

Perhaps there was a time in our own country when perfumes were used, as they are by backward races to-day, mainly to cover up unpleasant body odours. To the true devotee of beauty such a use, of course, is intolerable. The body must be clean and sweet and the perfume chosen one which will blend and harmonise with its sweetness to produce a truly individual fragrance.

Apart from the pleasure thereby given to our noses, the use of perfumes is to be highly commended on hygienic grounds. The materials from which perfumes are made are in most cases excellent antiseptics. The woman who scents her clothing and her body is really helping to keep disease at bay.

CHAPTER II

THE CARE OF THE FACE

THAT a lovely face is woman's greatest beauty asset is universally admitted. We must not, of course, exaggerate its importance to the neglect of every other consideration, as did, perhaps, the damsel who declared her face to be her fortune ; but the care of the face must play a leading part in any system of beauty culture.

EXPRESSION AND CHARM

The face is the mirror of the mind. This is a fact which ought never to be forgotten by the woman desirous of looking her loveliest. The beauty of the face is composite. It depends not only upon the form of the face itself, the character and disposition of the features, and the colour and texture of the skin, but also upon the *expression*. There are some faces which, in repose, can by no means be described as beautiful, but which nevertheless are very pleasing. For they never are in repose, but constantly derive an ever-varied charm from the

vivacious personalities of their owners. Indeed, a face of this character often proves more charming than one of a severer, colder and more classical type of beauty.

GOOD FEATURES

The task of actually changing the form of the face or effecting any radical alteration of the features lies entirely without the domain of cosmetics. It is a question of surgery. Plastic surgery has made great strides in recent years as a result of the experience gained during and after the European war ; but, speaking generally, it may be said that the time has not yet arrived when it is wise to invoke its aid for anything short of curing the most serious defects. Indeed, tastes differ so widely in the matter of faces that no woman, unless she is downright hideous, need despair of her face making an æsthetic appeal to some minds at least.

Agnolo Firenzuola, a celebrated Florentine who wrote, in the sixteenth century, a dialogue *Of the Beauty of Woman*, describing the perfect nose, says, " at the tip it should turn up a very little." This happens to correspond with my own taste ; but some folk regard a tip-tilted nose as a defect. One has only to study the works of the great artists, who have striven to depict the

loveliness of woman, to realise how the conception of what constitutes a perfect face has varied from age to age, and, during one and the same period, from artist to artist. Indeed, there are some faces which, judged by most standards, must be pronounced ugly, but whose ugliness has a quality of piquancy which produces on the observer's mind a reaction closely allied to that due to the contemplation of beauty. Whilst, therefore, the possession of what are called " good features " is certainly an important beauty asset, their value may easily be over-estimated.

USE OF ROUGE AND LIPSTICK

Cosmetics cannot change the shape of the face or the character of the features. Nevertheless, by the skilful use of certain cosmetics, apparent changes can, in some cases, be effected. We see this exemplified best on the stage, where the actor, by means of grease-paints and similar devices, is able, within limits, to assume the appearance of any type of individual desired. The glare of the stage lighting, of course, helps very considerably in producing the desired illusion. Any attempt to produce a very radical change would at once

be revealed as artificial in daylight or under conditions of ordinary electric lighting.

Nevertheless, something can be done by the judicious use of rouge and lipstick. For example, rouge applied high up on the cheek-bones tends to make a round face appear longer ; whilst to shorten one which is too long, the rouge should be applied lower down and made to cover a larger surface. Thin lips can be made to appear thicker by applying lipstick to a greater surface than that actually of the lips themselves ; whilst an over-large mouth (though this device is not very effective in daylight) can be made to appear smaller by limiting the area of application. The chief danger in adopting these and similar devices is the tendency to attempt too much, to overdo the application of the cosmetic and, thus, completely to spoil the effect. All colouring cosmetics should, except for stage purposes, be very sparingly applied indeed.

THE COMPLEXION

If the importance of good features can be over-estimated, that of a good skin cannot. The form of a face may be perfect ; nevertheless, if the skin is of poor texture, rough and blotchy, the beauty of form counts for nothing On the

other hand, poor features are very considerably redeemed if the texture of the skin is perfect. Now, no woman can hope to have a perfect skin unless she is in a perfect state of health. Health of mind and health of body are the bases of the two factors of facial beauty of greatest value—the expression and the texture of the skin.

Englishwomen are world renowned for the beauty of their complexions, a beauty which they owe very largely to their active, outdoor lives and their fondness for exercise and sport. Every hygienic measure which makes for bodily health is essential to the care of the face ; and I would again emphasise the importance of avoding constipation by such hygienic measures as a correct diet and plenty of outdoor exercise. I believe the wide prevalence of constipation in England is due to a large extent to a diet deficient in fats. A freer use of spices, which are all valuable carminatives and intestinal stimulants, might also prove beneficial. The importance of a plentiful proportion of fresh fruit in the diet is well recognised.

Passing from the question of general hygiene to the special hygiene of the face, it may be noted that Englishwomen, in general, pay a good deal of attention to their faces. Medical

men sometimes criticise the cosmetic treatment to which they subject them. Although cosmetics, such as face creams, etc., are often used in what can only be described as an unintelligent manner, we have only to observe the faces around us to realise that the criticisms in question are often too severe. The average Englishwoman who uses cosmetics certainly has a finer complexion than the average Englishman who does not.

THE STUDY OF THE SKIN

It is much to be deplored that the science of physiology is not a compulsory subject in every school in the land, as Herbert Spencer long ago wished it to be. As it is, most folk grow up with little or no knowledge of the structure of their bodies and the nature and functions of its various organs. I would strongly advise every woman who wishes to be beautiful to read two or three of the less technical works on this subject which have been written by scientific men, especial attention being paid to the structure and functions of the hair and skin.

Here I can only mention a few points of outstanding importance. And the first is that the skin is not a mere covering for the body, but is an organ with important functions to

perform. If impure matter is not regularly discharged from the body by its proper outlet, it will contaminate the blood-stream and manifest itself in a blotchy and unsightly skin.

The expression " a dry skin " is often misunderstood. Over the whole surface of the skin are dotted little apertures called pores, connected with the sweat glands, through which perspiration is discharged. This is the excretory function of the skin, whereby the body rids itself of certain of its less virulent impurities. More important than this, however, is the part played by perspiration, by the evaporation of the water of which it mainly consists, in regulating the temperature of the body. Although it may sometimes be necessary to limit the exercise of the function at a particular point when excessive, if the skin ceased entirely to perspire, not only would extra pressure of work be thrown on the kidneys, but other disastrous results would follow. I have read that, in the East, a method of torture was at one time adopted in which the victim was coated with a preparation which completely prevented the skin perspiring. I do not know whether this is the fact, but it is certain that a person allowed to remain in this condition for long would die a very painful death.

THE SEBACEOUS GLANDS

Dryness of the skin, however, relates not to perspiration, but to quite another function. Dotted over nearly the whole area of the skin are tiny depressions, out of which hairs grow. Except in certain places where Nature has provided a luxuriant growth for purposes of adornment, or in abnormal conditions, the hair on the bodies of women is soft, downy, and almost invisible. Attached to these depressions are certain glands which manufacture a secretion of an oily or waxy character called "sebum", which is Nature's lubricant for both the hair and the skin. When the sebaceous glands, as these are called, produce too little of this necessary lubricant, a dry skin is the result. On the other hand, an oily skin is caused by an over-abundant supply of sebum.

THE VIRTUES OF SOAP AND WATER

In the hygienic treatment of the face, the first and foremost essential is absolute cleanliness. I have no hesitation, therefore, in declaring soap and water to constitute the finest cosmetic. Women are sometimes told that washing with soap and water is bad for delicate complexions. This was no doubt true

in those days when soaps nearly always contained excessive alkali. It is not true to-day, provided a high quality toilet soap is employed, except, perhaps, in the case of *extremely* delicate skins. The best type of soaps to employ, except in cases of very oily skins, are *superfatted* soaps. These often contain lanolin, a useful material about which details will be given in a later chapter.

For cleansing purposes, warm water is to be preferred to cold, and soft water, if obtainable, should be used in preference to hard. The addition of a little borax and oatmeal to hard water usually serves to soften it. The material should be placed in a muslin bag, together with some pot-pourri to perfume it, and suspended in the water.[1] Overuse of borax, however, is probably worse for the face than is hard water.

Warm, and especially hot, water relaxes the skin and opens the pores. When, therefore, a cream is to be applied to the face which it is desired shall be absorbed, the face should first be bathed in fairly warm water. Cold water, on the other hand, has a tonic effect and tends to

[1] Bath salts, at any rate the cheaper brands, should be avoided, as these are usually nothing more than scented and coloured washing soda, the action of which on the skin is very harsh, owing to its strongly alkaline character.

close the pores. After the face has been cleansed in the morning it is always advisable to rinse it in cold water. Astringent lotions are applied for a similar purpose.

OTHER DETERGENTS

In addition to soap and water, there are other useful cleansing agents, or "detergents", as they are called, such as cold cream. The mud-pack treatment is also essentially a cleansing treatment. I shall deal with these in detail in later chapters, but I would like here to emphasise the importance of using cold cream at night, in addition to soap and water, in order to cleanse the face thoroughly from powder and accumulated dirt.

VANISHING CREAM AND FACE-POWDER

Perhaps, if we were living under perfectly natural conditions, in a climate perfectly adapted to human existence, nothing more would be necessary from the hygienic point of view to ensure lovely complexions. But we are not. Means are necessary to protect the complexion against the inclemencies of the weather and the entry of dust into the pores. In the morning, therefore, after the face has been cleansed and treated with cold water or a mild astringent, a

little vanishing cream should be gently rubbed in and a thin dusting of good face powder of a well-chosen tint applied. Rouge, which is simply face powder stained red, may also be sparingly used if desired. The object in using powder is twofold—to protect the skin and to give it a peach-like bloom. It should always be applied over vanishing cream, and always completely removed at night by means of cold cream.

EMOLLIENT CREAMS

In order to keep the skin in a supple condition, it may be necessary at night to apply an emollient cream. If the skin is too dry, a cream of a greasy character is indicated; otherwise a non-greasy cream is, perhaps, to be preferred. Creaming the face, whilst useful, can, of course, be overdone, especially if a cream is used which is not easily absorbed or if the cream is applied too thickly. The skin, to be healthy and to discharge its full functions, must breathe, and the danger of too much cosmetic treatment is that the exercise of this important function may be seriously jeopardised.

MASSAGE

Massage is very popular to-day as a method of facial treatment, and is undoubtedly useful

in certain abnormal conditions. It needs, however, to be carried out by a *masseuse* perfectly skilled in the art; and there is a tendency to overrate the benefits which may be obtained by means of it. Vigorous massage with a lanolin cream is liable to result in the growth of superfluous hair.

SKIN DISEASES

It is, perhaps, necessary to add that where any defect is present symptomatic of skin disease, no matter of how slight a character, medical advice should be sought. Diseases of the skin are far more frequently worsened by ill-advised home treatment and the use of "patent medicines" than they are cured by such means. It is especially important that abnormalities of pigmentation and minor growths, such as freckles, birth-marks, moles and warts, should not be interfered with. Warts, in particular, are often extremely unsightly, and in cases where the removal of these and like defects is desired, medical aid should be obtained.

THE CARE OF THE TEETH

A few words concerning the teeth will not be out of place, since, however beautiful a face

may be in every other respect, the effect is completely marred if the teeth are discoloured or defective in any way. The habit of brushing the teeth at least twice a day is so firmly established, however, that there is, perhaps, no need to emphasise its importance.

Much discussion has taken place in scientific circles concerning the best type of dentifrice to employ. Dentifrices may be either of an acid or of an alkaline character, and those of the latter type may or may not contain soap. My own opinion concerning the relative merits of the different types is that individuals differ so widely that a dentrifice which may be excellent for one set of teeth may be by no means suitable for another. It is best to experiment oneself with several dentifrices made by firms of repute and to select the one which is found to give the most satisfactory results.

When the teeth are not placed absolutely next to one another, the interspaces between them should be regularly cleaned by means of a piece of silk.

Cigarette smoking—now a firmly established custom amongst Englishwomen—tends to blacken the teeth. This blackening, though very unsightly, does not injure the teeth in any way—indeed, the deposit seems to exercise a

preservative action upon them. It may usually be removed by rubbing the teeth with a good dentifrice by means of an orange stick.

A six-monthly or yearly visit to a properly qualified dentist, in order to have the teeth thoroughly overhauled, is strongly recommended.

CHAPTER III

THE CARE OF THE HANDS

It is a noteworthy and regrettable fact that quite a number of women who take great care of their faces seem completely to ignore their hands. This is more especially the case with housewives and factory workers. The nature of their work is usually held responsible for their hands becoming completely ruined in appearance. Of course, in a sense, it is. But they themselves are also responsible, since, with a little care, the ill-effects of the work could be pretty effectively avoided.

COARSE HANDS

A woman's appearance as a whole is utterly ruined if her hands are coarse, dirty and obviously uncared for. No matter how lovely her face may be, she lacks beauty if her hands are not beautiful. Indeed, the very beauty of her face merely accentuates the ugliness of her hands. The care of the hands, therefore, is a matter of very great importance.

Wearing gloves when engaged in work which soils the hands is a plan which should always be adopted whenever possible. It is not, unfortunately, always possible, and in such cases the hands should receive special cleansing treatment to counteract the effect. The other day, entering a tobacconist's shop, I commented on the fact that the young lady who supplied me with my cigarettes was wearing gloves. She told me that she had just been cleaning the scales, and that a number of her customers laughed at her for wearing gloves whilst doing this job. I left the shop impressed with the sensibility of the girl, and the stupidity of the folk who found something comic in her care for her hands.

CAUSES AND REMEDIES

Putting the hands into strong, hot solutions of washing soda is extremely bad for them. The need for using washing soda is one of the greatest adversaries to pretty hands which the housewife has to face. When it is absolutely necessary to put the hands into hot water containing much washing soda, the evil effects can, to some extent, be counterbalanced by plunging them immediately afterwards into water containing a little vinegar or lemon juice, the

acidity of which neutralises the alkalinity of the washing soda. To-day, however, washing powders for domestic use are obtainable, based on substances which soften hard water without making it strongly alkaline.

Owing to the fact that the hands need very frequent washing, their skin is apt to be deprived of its due proportion of sebum. There are few hands, therefore, which are not benefited by the application of an emollient cream of a greasy type containing lanolin. The cream should be applied at night after bathing the hands in hot water to assist absorption, and the hands then covered with an old pair of cotton gloves.

GLYCEROL FOR THE HANDS

Glycerol, commonly called " glycerine ", constitutes another excellent emollient for the hands, as it does also for the face. I shall deal in more detail with this substance in a later chapter ; but it seems necessary here to emphasise one peculiar property it possesses. It has a great fondness for water, or, as scientists say, it is hygroscopic. If pure glycerol is applied to the skin, it will extract moisture from it and thus exercise a drying effect. Cases have occurred of girls who have read in various

women's journals that " glycerine is good for chapped hands ", applying pure glycerol, with the result that the trouble has been accentuated and almost excruciating pain produced. Glycerol must always be mixed with once or twice its own volume of water before application to the skin. Rose-water or orange-flower-water can, of course, be used instead of plain water for this purpose.[1] When so diluted, glycerol constitutes an excellent emollient and is very good for chapped hands. Alternatively, various types of glycerol creams, of which details will be given in a later chapter, may be employed.

CAMPHOR FOR CHAPPED HANDS AND CHILBLAINS

Chapped hands are very troublesome. Another material which may usefully be employed in treating them is camphor, which acts as a mild counter-irritant. A simple camphor ointment useful for relieving both chapped hands and chilblains may be made by rubbing 9 parts of white " vaseline " with 1 part of camphor in a warmed mortar until the two

[1] A mixture consisting of 32 parts of glycerol, 32 parts of rose-water, 32 parts of orange-flower-water, and 4 parts of alcohol (spirits of wine) is even better and will be found most agreeable to use.

ingredients are thoroughly mixed and the cream is cold.

If camphor-ice, as it is called, is preferred, this may be obtained from any chemist or prepared by incorporating 1 part of camphor with 9 parts of a mixture of soft paraffin (white "vaseline") and hard paraffin. The proportions of the two paraffins can be adjusted according to whether a hard or soft "ice" is required, and some account must be taken of the prevailing temperature, but about 7 parts of soft paraffin and 2 of hard paraffin to 1 of camphor will be found good average proportions. The two paraffins should be melted together in a small basin heated by being placed over boiling water. The camphor is then added, the molten "ice" well stirred, and poured into small moulds to cool and to harden.

It has been well said, however, that chapped hands are easier to avoid than to cure. Perhaps the chief cause of chapping is inadequate drying after the hands have been washed. Strict attention should be directed to this important matter. When there is any tendency to chapping, washing the hands in cold water should be avoided and warm or tepid water always employed. Cold cream is as useful a detergent

for the hands as it is for the face, and in cases of extreme liability to chapping it can take the place of soap and water.

MANICURE

The nails require particular attention, and to-day the art of manicure has been brought to a high degree of perfection. It is, of course, of fundamental importance to keep the nails perfectly clean. As a preliminary to cleansing the nails, the hands should be immersed in warm, soapy water to which a little borax has been added to soften it. Any particles of foreign matter which have found lodgment under the nails can then be easily removed by means of an ivory or bone nail cleaner. Cleansing the nails by brushing them with a hard brush should be avoided as liable to lacerate the cuticle.

The use of greasy emollient creams, already recommended for the hands, is serviceable for keeping the nails from becoming too brittle and maintaining the cuticle in a healthy condition.

To cleanse the surfaces of the nails and to remove stains if such should occur, various bleaching preparations are employed, some of which contain dangerous substances, such as oxalic acid and oil of vitriol. Harmless bleaching agents for the purpose can be made by

diluting 20 vol. hydrogen peroxide with two-thirds of its volume of rose-water, or by dissolving 1 part of tartaric acid in 20 parts of orange-flower-water.[1] Lemon juice may also be used, and is quite good.

FILING OR CUTTING?

Filing the nails in an upward direction is usually to be preferred to cutting them with nail scissors. Sometimes cutting is absolutely condemned. This is a mistake. Some nails are of a relatively soft texture and are, perhaps, better cut than filed. Very often, however, the texture is somewhat brittle, and in such cases, cutting is liable to cause the nail to split.

Each nail should be trimmed so as to follow the contour of the finger tip, the nail not being cut or filed so low as to expose the quick or left so long as to project beyond the tip of the finger. The Chinese are peculiar in that they admire very long finger nails, which they preserve by means of special cases. The result is not only extremely unsightly to Western eyes, but the utility of the hand for work or play is thereby seriously impaired. A custom adopted by some Englishwomen of filing each nail to a

[1] This latter preparation does not keep well. A little alcohol may be added to preserve it.

point is, in my opinion, little less unsightly. It offends the fundamental principle of true beauty culture, that artifice should aim at simulating Nature at her best.

THE "HALF-MOONS"

In order that the full beauty of the nails shall be manifest, it is necessary to remove dead cuticle, and to press back the cuticle adhering to the base of each nail. An excellent cuticle remover is made by mixing together 3 parts of liquor potassæ B.P., 2 parts of glycerol and 5 parts of rose-water.[1] The cuticle remover is applied on a small piece of cotton-wool by means of an orange stick, and is worked round the edges and under the tips of the nails. Another piece of wool is then applied to remove dead cuticle loosened by the application of the cuticle remover. Care must be taken in performing this operation, it being remembered that liquor potassæ is very caustic.

The hands are then immersed in warm water to remove traces of the various cosmetics, and whilst they are being dried the cuticle at the base of each nail is carefully pushed back so as

[1] The preparation is best stored in a little bottle fitted with a *rubber* stopper.

clearly to expose the pretty little half-moons at the base of each nail.

POLISHING

Then comes the polishing. A simple wax polish can be made by melting in a basin over boiling water 2 parts of beeswax with 8 of white " vaseline ". But wax polishes are found to be less effective than those based on tin oxide. This substance, which is simply a very pure form of putty powder, is a remarkably effective polishing agent. When free from lead the substance can safely be used as a nail polish, but none of it should be allowed to remain behind after the polishing is done. A good polish can be made by thoroughly mixing 6 parts of the purest tin oxide with 2 parts of purified talc and 2 parts of purified kaolin, all in the form of impalpable powders.[1] Polishing is best effected by means of a small pad of chamois leather. Any scratching of the surface of the nails should be carefully avoided.

ENAMELLING

Enamelling the nails offers itself as an alternative to polishing. Nail enamels are essen-

[1] This is improved if tinted with a trace of phloxine (a harmless pink dye), dissolved in water in a manner similar to that described in a later chapter for making rouge.

tially cellulose-ester lacquers. Their composition is complex, and they do not constitute a type of cosmetic which may suitably be prepared at home. From the hygienic point of view, their use may be pronounced quite innocuous, and it has the advantage of producing a more lasting effect than polishing. If a good enamel is chosen and carefully applied, very pleasing results can be obtained; but too frequently this is not the case and the nails look artificial. Some nails polish so well that the application of an enamel is unnecessary, apart, of course, from the fact just indicated that nails which are not enamelled require manicuring more frequently than those which are protected by a layer of enamel. It is a matter which must be left to each woman's own good taste. If a perfectly natural-looking result cannot be obtained by means of enamel it is better not to use it. When enamel is used it must be completely removed from the nails by means of a special solvent before they are again manicured.

In Egypt and India, women from very early times have been in the habit of staining their finger and toe nails bright red with henna. In the Western world a light pink is more admired, and nail enamels are usually tinted pink by

means of various innocuous coal-tar dyes. If an enamel of this type is employed, it should not be applied to the half-moons or the ends of the nails.

A FEW WORDS ABOUT THE FEET

Finally, it should be said that it would be quite contrary to a true ideal of beauty carefully to manicure the hands and then to neglect the feet. The toe nails should be treated along the same lines as the finger nails. Ill-fitting and tight-fitting shoes, which deform the feet and destroy their natural beauty, should always be carefully avoided. If perfectly fitting shoes are always worn, corns will be quite unknown.

A daily bath is very desirable in the joint interests of hygiene and beauty, but in special circumstances which may debar this, bathing the feet every day should never be omitted. Not only does cleanliness demand this, but bathing the feet is extremely refreshing. A very good practice is to bathe the feet in warm water every night and, whilst they are still warm, to plunge them into cold water. This stimulates the circulation and prevents the occurrence of chilblains. A little perfumed oil may afterwards be massaged in, the best oil for the purpose being genuine sweet almond oil.

It is very desirable that the feet should always be kept warm, as cold feet and ankles are often the forerunners of chilblains, chills and other ills. The present fashion of wearing ankle socks in the colder part of the year is, therefore, one to be strongly commended. Moreover, the effect is usually a pretty one. The socks worn should be woollen or, what is perhaps even better, cashmere.

CHAPTER IV

ABOUT THE MATERIALS USED IN MAKING COSMETICS

In the last chapter some recipes were given for preparing certain of the requisites of manicure, and readers will have noticed how simple these are and how easy the preparations in question are to make. Indeed, although there are some exceptions, very many cosmetics are extremely simple in composition and easy to prepare, that is, if we omit the perfume. To-day the perfuming of cosmetics has been brought to a high degree of perfection, the perfumes used being often very complex in composition and requiring great skill for their successful confection. It is, in fact, safe to say that, in very many cases, proprietary cosmetics owe their individuality to their perfume. Apart from this, they follow along much the same lines ; but each manufacturer strives to strike a new note in the matter of fragrance.

MAKING COSMETICS AT HOME

At one time every lady of means possessed her still-room, where aromatic waters were dis-

tilled and various cosmetics compounded. This time is past and, apart altogether from the legal difficulties attendant upon setting up a still, women, generally speaking, prefer to buy their scents and cosmetics ready made. At the same time, there are many who would like to make their own cosmetics, providing this could be simply done. Any woman who takes up this task will find it full of interest.

There is a real kinship between the kitchen and the chemical laboratory, and in a well-equipped kitchen much of the apparatus necessary for the compounding of simple cosmetics will be found ready to hand. A small Wedgwood pestle and mortar constitute an essential part of the equipment and can be purchased for a few shillings. A pair of scales, such as are used by photographers, whereby small quantities of materials can be fairly accurately weighed, is another essential requisite, and two or three graduated vessels for measuring out small quantities of liquids are also necessary. Add to these a glass rod or two for stirring, and the kitchen will provide the rest, provided nothing very elaborate is to be attempted.

In the chapters which follow I shall give recipes for a number of useful face creams, toilet lotions, etc., which you may like to pre-

pare for yourself. Alternatively, you may prefer to have cosmetics made up or compounded from these recipes by a chemist, in preference to using the more expensive proprietary articles. In this event, all that is necessary is to copy out the formula and to take it to a properly qualified chemist, who will compound the preparation for you. In many instances, he may, within limits, be able to perfume it to your taste.

There is the advantage in adopting one or other of these courses that you will know exactly what you are using. This is not the case with proprietary cosmetics. The great bulk of them, it is true, are quite innocuous, but they are surrounded by an unhealthy atmosphere of secrecy. I am sure that the science and art of cosmetics would be greatly advanced and benefited if this secrecy could be broken down.

PURITY OF INGREDIENTS

The materials used in the preparation of cosmetics should always be pure and of the finest grade. The magic letters " B.P." after the name of a chemical or drug are a guarantee of good quality. They indicate that the material conforms to the degree of purity laid

down by *The British Pharmacopœia;* and, although materials of B.P. quality may not always be sufficiently pure for the purposes of the analytical chemist, they have the degree of purity necessary for medicinal and cosmetical use.

VARIETIES OF WATER: AROMATIC WATERS

One of the most important substances used in the preparation of cosmetics is, of course, water. The mineral salts present in ordinary tap water which render it hard often give rise to a cloudiness when various substances are dissolved in it. It is better, therefore, always to employ water which has been purified from these by distillation. Such aromatic waters as rose-water and orange-flower-water are also extremely useful and are to be preferred to plain distilled water on account of their fragrance. Moreover, rose-water is mildly astringent. These aromatic waters are manufactured by distilling water over rose petals or orange-flower petals, as the case may be. Part of the perfume material of the flowers, which is volatilised in the process, dissolves in the water on cooling. The waters are frequently mixed with twice their volume of distilled water immediately

before use, and they are then referred to as " diluted rose-water " and " diluted orange-flower-water ", respectively.

OILS AND FATS

Oils, fats and waxes also play a part of leading importance in the preparation of cosmetics. The fixed oils and fats obtained from vegetable and animal sources are closely akin in chemical composition. They consist of compounds, or, to speak more accurately, condensation products, of glycerol and certain substances which, chemically speaking, are acids, though they lack the property, commonly associated with the idea of acids, of dissolving in water to produce sharp-tasting solutions. Indeed, they are insoluble in water, and resemble oils or fats superficially more than they do common acids. They are known as " fatty acids ".

ALMOND OIL

One of the best vegetable oils for cosmetic use is the fixed oil of almonds, almond oil, or, as it is sometimes called for the sake of distinction, " sweet almond oil ". It is a yellowish liquid, somewhat like olive oil, but with very little odour and a bland and nutty taste. It keeps very well, which is not the case with

most fixed oils. It is obtained by subjecting either sweet or bitter almonds to pressure, the latter sort being more used. This oil must not be confused with the *essential* oil of bitter almonds, or "bitter almond oil", which is obtained from bitter almonds, after the fixed oil has been expressed, by fermentation followed by steam distillation. This latter oil, which has a powerful almond-like odour, contains prussic acid, and is therefore poisonous. The prussic acid can easily be removed, and the resulting harmless product is employed for making flavouring essences. The fixed oil of almonds contains not a trace of prussic acid. It is not poisonous; indeed, it is a very wholesome and nutritious oil.

SOAPS AND GLYCEROL

When fixed oils and fats are acted on under suitable conditions with alkalies, such as potassium or sodium hydroxide, glycerol is set free and the alkali condenses in its turn with the fatty acid to produce a sodium or potassium salt. The resulting "salt" constitutes soap, the process, therefore, being known as "saponification".

Glycerol has already been mentioned as being an excellent emollient for the skin when suitably

diluted with water. It is a thick, colourless liquid, odourless, but with a sweet taste. When pure it is, bulk for bulk, rather more than one and a quarter times as heavy as pure water. It dissolves readily in both water and spirit, in all proportions, to form clear, colourless solutions.

ANIMAL WAXES

Waxes are often harder than fats and are sometimes quite brittle. They resemble fats chemically, but are condensation products of fatty acids with, not glycerol, but certain substances chemically related to ordinary alcohol. One of the most useful waxes for cosmetic purposes is beeswax, obtained from the honeycombs of hive bees. By the action of sunlight, air and moisture, or by means of appropriate chemical reagents, the wax, which is naturally of a yellow colour, is bleached quite white.

Spermaceti, a shining, white wax obtained from the head of sperm whales, is also employed, but has an unfortunate tendency to go rancid.

Lanolin, often called wool-fat, is, strictly speaking, a wax. It is obtained from the wool of sheep. Owing to its similarity to the sebum of human beings, it occupies an especially important position in cosmetics. I shall deal with

it in detail in the chapter devoted to emollient creams of the greasy type.

MINERAL OILS AND WAXES

Then there are the mineral oils and waxes, which are also very useful for cosmetic purposes. Chemically speaking, these are quite distinct from the true fats, waxes and fixed oils. They consist of mixtures of hydrocarbons, that is, compounds of carbon and hydrogen only, whilst the true fats, waxes and fixed oils contain oxygen in addition to these two other elements.

Mineral oils and waxes are obtained by refining natural petroleum and also by the destructive distillation of brown coal. The following are used for cosmetic purposes: liquid paraffin, soft paraffin and hard paraffin. Liquid paraffin is a colourless, odourless, tasteless and bland liquid which does not boil below 360° C. It must not, of course, be confused with the paraffin used for burning. It is somewhat variable in viscosity or "thickness," different varieties being best for different purposes.

"Vaseline" is a highly esteemed brand of soft paraffin, which is so well known as hardly to need description. For most cosmetic purposes the white variety is preferable to the

yellow. Hard paraffin is a hard, colourless, wax-like material of variable melting point. Ozokerite is a naturally occurring mineral wax, which resembles hard paraffin in some respects. By bleaching it is rendered colourless, and is then usually known as " ceresine ".

EMULSIONS

It is commonly said that oil and water will not mix, but, like many old sayings, this one is not altogether true. It is, of course, impossible to dissolve an oil in water so as to obtain a clear solution, as is the case, for example, with salt, sugar, or glycerol. By suitable means, however, it is possible to break up an oil into tiny particles and to suspend them in water so as to produce a milky fluid of uniform composition throughout, or, alternatively, to break up the water into tiny particles and disperse these in a similar manner throughout an oil. Such intimate mixtures of oils and water are known as " emulsions ". Some emulsions occur naturally, such as milk and the latex of certain trees (*e.g.*, rubber latex). Quite a number of creams and lotions used cosmetically are essentially emulsions.

In order that an emulsion shall be more or less permanent and not break down, separating

into two layers, one of oil and one of water, it is necessary for some viscous (or " thickening ") material to be present, dissolved in the water in the case of an emulsion in which the oil is dispersed throughout the water, or in the oil in those emulsions in which the water is dispersed throughout the oil. The employment of suitable substances of this type much facilitates the preparation of emulsions, and they are therefore known as " emulsifying agents ". Amongst the more useful mention may be made of soap, lanolin and certain naturally-occurring gums, such as acacia and tragacanth.

ZINC OXIDE

Zinc oxide is a substance much employed in cosmetics. It is an opaque, white powder, prepared by burning the metal, zinc, in air and collecting the fumes, or by heating zinc carbonate. It is employed cosmetically for two purposes—first, in face powders, etc., because of its whiteness and opacity ; and, secondly, because it is a mild astringent, which, used in moderation, has a soothing action on the skin. Zinc carbonate resembles it in appearance and action, but lacks its opacity. Commercial zinc oxide is often contaminated with arsenic ; only

the B.P. quality should, therefore, be used in compounding cosmetics.

VARIETIES OF STARCH

Starch must also be mentioned. This is a plant product of complex composition which occurs in grains showing a more or less organised structure. Starch is insoluble in cold water. When placed in hot water the grains swell enormously, their envelopes burst, and a colloidal solution, known as "starch paste", results. The grains of starch obtained from different sources differ greatly in size, a matter of importance so far as the use of starch in face powder is concerned. Those of rice starch are smallest. Next in size, so far as the common starches are concerned, come the particles of maize starch or cornflour. Wheat starch, arrowroot or maranta starch, and potato starch have large grains which render them useless for making serviceable face powder. The colour also varies a little, wheat starch being the whitest, with good arrowroot next.

PERFUMES

A few words concerning perfumes seem necessary, though readers desirous of full information on this important topic should first

read my little book, *Scent and All About It* (London, 1928), and then one of the larger treatises on the subject.

The most important materials used in the confection of the fine perfumes which so much delight us to-day are the essential oils obtained by distilling flowers and other portions of plants in the presence of steam. Other odorous products manufactured from flowers by more elaborate processes, such as extraction with fats in the cold (*enfleurage*), or by means of volatile solvents, such as refined petrol, are also used.

Essential oils are quite distinct from fixed oils. They are highly aromatic and very complex in their composition. Many of their component substances are artificially prepared, and these, together with kindred substances of an aromatic character prepared from coal-tar and various vegetable products, constitute the large body of "synthetics", which are much employed in perfumery to-day.

Then there are a number of resins and oleo-resins of an aromatic character, such as balsam of Peru, gum benzoin, labdanum oleo-resin, etc., which are exuded by certain trees and other plants and appear to be partly oxygenated essential oils. They are particularly useful to the perfumer, since they assist in retarding the

evaporation of the more volatile constituents of a perfume and thus render its fragrance more lasting. Certain aromatic materials of animal origin, such as musk, civet and ambergris, whose odours are very powerful, are also used in minute traces for the same purpose.

ALCOHOL

Scent, as we understand it to-day, consists of materials belonging to the classes just described, carefully selected and blended and dissolved in a suitable volatile medium. The one suitable medium is highly purified alcohol, obtained by the fermentation and subsequent distillation of grapes or other saccharine material, diluted with a little water. It is mainly the high duty to which alcohol is subject in this country which makes good scent so expensive.

A cheap substitute for alcohol has been found in a liquid which closely resembles it in many ways, and is known as "isopropyl alcohol". This liquid is somewhat more toxic than ordinary alcohol. Moreover, it lacks the pleasant odour of the latter. Isopropyl alcohol, therefore, is quite unsuited for compounding fine scent, but is usefully employed in making certain cosmetic preparations, *e.g.*, bay rum and other hair lotions. No duty is charged on this

material, but users have to make a half-yearly return to the excise authorities, giving particulars of amounts used, purposes for which employed, etc.

I have attempted in the recipes contained in this book to give nothing elaborate in the matter of perfume. In some formulæ, " perfumed alcohol " is included, no particular perfume being indicated. As all handkerchief scent is perfumed alcohol, you may employ your favourite scent in these cases. It is certainly an advantage to have all one's cosmetics fragrant with the same perfume as far as possible, since, if various perfumes are used, the note of individuality is lost.

TINTS AND COLOURS

A few words also seem necessary concerning the question of colour. Cosmetics are coloured for two entirely different reasons. Some, such as certain handkerchief perfumes, face creams, hair lotions, brilliantines, etc., are lightly tinted so as to add to the attractiveness of their appearance. So far as their utility is concerned, the colour is quite unimportant. The tinting of such cosmetics is really an art in itself. I have not thought proper to deal with this subject in the present book (beyond one or two

brief notes), since to have done so would have impaired its simplicity. Moreover, many readers would have found it difficult to have obtained the necessary dyes in the requisite state of purity to have essayed the task of tinting.

In the second place, there is a big group of cosmetics, including rouges, lipsticks, eyebrow pencils, grease paints, etc., in which the colour is a matter of primary concern, since these are used for the purpose of tinting the skin or hair. This type of cosmetic is only lightly touched upon in this little book. Readers desirous of full information concerning the preparation and use of colouring cosmetics will find this in *Paint, Powder and Patches*, a book which deals with the whole art of making-up for the stage, for which purpose a complete gamut of colours is required.

FORMULÆ

In writing the various formulæ, I have not specified any particular quantities, but have indicated the proportion of each ingredient as so many parts, most of the formulæ being so adjusted that the total number of parts comes to 100. Formulæ written in this way are very easy to use, and may be employed with any

system of weights and measures, such as apothecaries, avoirdupois, or, what is best of all, the very simple and sensible metric system. All that is necessary is to divide the total quantity of any preparation that may be required by 100 and to treat the resulting quantity as "one part". In the case of liquids, the number of parts given means "parts by volume", and the requisite number of parts of the liquid should be carefully measured; whilst, in the case of solids, the number of parts given means "parts by weight", and the requisite number should be carefully weighed out, the fluid ounce being treated as equivalent to the avoirdupois ounce weight, and the cubic centimetre or millilitre[1] as equivalent to the gram weight.

The abbreviation "*q.s.*" (*quantum sufficit*) used in formulæ means that the quantity of the material in question is not specified, but that sufficient should be added as judged by the compounder's good sense and taste.

[1] These are not absolutely identical, but for the purpose in question the difference may be neglected.

CHAPTER V

COLD CREAM: ITS HISTORY, COMPOSITION AND UTILITY

NEARLY 1,800 years ago a celebrated Roman physician, the illustrious Galen, invented a cream or ointment, which, with slight modification only, has come down to us to-day, and it is still recognised as a useful aid to beauty. This preparation is cold cream. It gets its name from the fact that, when applied to the skin, it produces a cooling sensation. This is the result of the evaporation of the water which is an essential constituent of the cream.

USES OF COLD CREAM

At one time, cold cream was practically the only cream available for toilet purposes. Women had to use it for all sorts of purposes for which it was not really suitable. It does not, for example, constitute at all a satisfactory basis for powder; and as an emollient cream, it is much inferior to creams based on lanolin or glycerol, the composition of which I shall explain in detail in later chapters.

Some ladies still prefer to use cold cream for emollient purposes. The practice, however, is not a good one. Cold cream contains wax, and this wax is liable to block the pores and thus to prevent the proper discharge of their functions. The objection, however, does not apply if cold cream is used, as it should be used, simply and solely as a detergent or cleansing agent.

The fact that, for many purposes, cold cream has been displaced by more suitable preparations, has caused it to fall somewhat into disfavour. Indeed, I recently came across a statement in a French work on cosmetics in which the author spoke of cold cream as a thing of the past, no longer used to-day.

This statement is quite incorrect. There is the one purpose already mentioned for which cold cream remains pre-eminent, that of a detergent. Modern cleansing creams are simply varieties of cold cream under a new name. It is a fact, however, that women do not use enough cold cream. The practice of retiring at night without first removing every scrap of powder from one's face by the aid of good cream is one much to be deplored. Allowed to remain on the skin in this manner, face powder, instead of being a useful hygienic measure for the preservation of beauty, becomes a menace

to it. This is especially true if the powder, as is the case with many face powders, contains starch, for the starch, which finds lodgment in the pores, is liable to ferment, and thus to give rise to serious trouble.

A pot of cold cream must, therefore, be regarded as an essential requisite of the dressing-table. A little rubbed on to the hands and face and removed shortly afterwards with a soft towel leaves the skin delightfully fresh and soft, free from all particles of dirt and other deleterious matter. Let me repeat that the woman who uses face powder commits a crime against her face if she neglects scrupulously to cleanse it every night from every particle of powder and accumulated dirt. Washing is not enough. The skin must first be cleansed with cold cream and afterwards washed.

HISTORY OF COLD CREAM

Cold cream has such an interesting and instructive history that I am sure you will be glad if I give some details concerning it. Cold cream is essentially an emulsion of water in oil, scented with roses and usually containing beeswax. The following method of preparing it, which was given in the first edition of the

Pharmacopœia Londinensis, published in 1618, is attributed to Galen, and may, in any case, be taken as following his method pretty closely: 4 oz. of white wax are melted in 1 lb. of olive oil in which rose-buds have been soaked. The melted oil and wax are repeatedly poured from one vessel to another, a little water being stirred in from time to time until the mixture becomes quite white. Finally, the cream is washed with rose-water, and a little rose-water and rose-vinegar are incorporated with it.

At a later date, Galen's *Unguentum Refrigerans*, as the cream was called, was banished, for a time, from official recognition. But the cream refused to die. Galen was responsible for a highly fantastic system of medical philosophy which dominated medical science for centuries. To-day this philosophy may truly be described as dead, but the cosmetic he invented appears likely to live as long as women desire Beauty.

In the method of preparation described above, the wax plays the part of the emulsifying agent. But a very inefficient one it is. The old method of making cold cream was very laborious, a great deal of shaking or of beating the ingredients together being necessary in order to get the emulsification to take place.

USE OF SPERMACETI

In some formulæ, spermaceti is employed in addition to the beeswax. This has the effect of producing a very white cream, and the material is often incorporated in cold cream to-day.

I do not advocate the use of spermaceti. It is liable to go rancid. This question of rancidity is a very important one, since if cold cream does go rancid, acids may be produced having an irritating action on the skin. The danger is that this may happen without the change betraying itself by a bad odour, this being masked by the perfume. The choice of oil is therefore very important. If a vegetable oil is employed, *this should always be pure sweet almond oil*. Alternatively, liquid paraffin may be employed. Creams made with a mineral oil are just as good cleansing agents as those based on a vegetable one. Indeed, they are rather to be preferred as being softer and more efficient.

USE OF BORAX

The modern scientific method of making cold cream is to add borax to the preparation to assist the emulsification. The borax, which is somewhat alkaline, reacts with part of the oil (if a vegetable one) or with the wax to form a

trace of soap. This commences to produce an oil-in-water emulsion, which is automatically converted into a water-in-oil emulsion by the wax.[1]

When borax is employed for the purpose, the preparation of cold cream becomes so simple that a child could almost carry it out successfully. Nevertheless, old opinions die so hard that the use of borax has been criticised. I have no hesitation in declaring it to be quite harmless when properly employed.

Almost innumerable formulæ for cold cream have been published for which various claims have been made. My own opinion is that the simpler formulæ are the better. I shall give some standard formulæ for making different types of cold cream which are quite simple and easy to operate and which yield satisfactory products.

THE OFFICIAL FORMULA FOR COLD CREAM

First of all, then, we have the formula of *The British Pharmacopœia* itself, which is one for a

[1] According to another theory, the emulsification is effected by the melissyl alcohol, also produced by the reaction between the borax and the beeswax.

cold cream of the almond oil type.[1] Here it is :—

UNGUENTUM AQUÆ ROSÆ, B.P.

Almond oil	61 (by weight)
White beeswax	18
Rose-water, diluted . . .	20
Borax, purified	1
Essential oil of roses . . .	0·1

The cream is made as follows: Melt the beeswax in the sweet almond oil in a basin heated over boiling water. Dissolve the borax in the rose-water, after it has been diluted, by placing them together in a tube or small bottle and warming this in hot water. Allow the oil and wax to cool a little, and then slowly pour in the warm solution of borax in rose-water, stirring all the while. As the cream cools, work in the essential oil of roses.

This cream is nice and white, but a little stiff, perhaps, although it readily melts when applied to the skin.

PAROGEN COLD CREAM

The *British Pharmaceutical Codex*, 1923, gives a formula for "parogen" cold cream

[1] References to *The British Pharmacopœia* relate to the edition of 1914. A new edition is in course of preparation, and it is probable that this formula will be replaced by one in which arachis (pea-nut) oil is employed in place of almond oil.

which differs from the above by the addition of soft paraffin. This is specially recommended by the *Codex* for toilet purposes. Here is the formula :—

CERATUM GALENI, B.P.C.

Soft paraffin, white	12·5
Beeswax, white	12·5
Almond oil	50
Borax, purified	1
Rose-water, undiluted	25
Essential oil of roses	0·1

The emulsion of the oil, wax and rose-water is made with the aid of the borax, as in the case of the B.P. cream described above. Whilst still warm, the cream is incorporated with the soft paraffin in a warmed mortar and the perfume is added.

MINERAL COLD CREAM

For cleansing purposes, however, as I have already mentioned, there is much to be said in favour of cold cream made with a mineral oil ; and, for a cleansing cream, the following formula will, perhaps, be found to yield the most satisfactory result :—

Mineral Cold Cream

Liquid paraffin, B.P.	61
Beeswax, white	18
Rose-water, undiluted	20
Borax, purified	1
Perfume	q.s.

This cream is made in exactly the same manner as the B.P. cream, liquid paraffin being used in place of almond oil and the rose-water not being diluted before use. The cream is cheap and easy to make, is beautifully white, and very soft and agreeable to use. Its keeping properties are excellent.

PERFUMING COLD CREAM

By using appropriate perfume material cold cream can be made in a great variety of pleasing odours. There is, however, a predilection in favour of the original odour, that of the delicious rose. The essential oil of roses, or attar of roses, as it is also called, used in the B.P. and B.P.C. formulæ, yields, in conjunction with the rose-water present, a very exact reproduction of the fragrance of roses. This oil, however, is very expensive. Artificial rose oils, some of which are very good, can be more cheaply obtained and used in place of it. French rose-geranium oil, which is an essential oil obtained

by steam-distilling pelargoniums (geraniums, so called) mixed with a few rose petals, and phenyl-ethyl-alcohol, a substance made by chemical means, which is identical with one of the constituents of genuine oil of roses, are still cheaper substitutes, though by themselves they are naturally not so good. If you are interested in perfumery, you may like to try the following mixture of essential oils and other odorous materials, which yields a very nice perfume of the rose type :—

Rose-geranium oil . . .	4 drops
Phenyl-ethyl-alcohol . . .	2 ,,
Patchouli oil	2 ,,
Essence of musk, synthetic . .	1 drop
Vetiver oil	1 ,,

The above quantities will be found quite sufficient to perfume a couple of ounces of cold cream ; indeed, you may prefer to use a considerably less proportion of the perfume.

LANOLIN COLD CREAM

It will be of interest, perhaps, if I give some short details concerning other varieties of cold cream, though I do not consider these to possess any real advantages over the simple ones already described, but to be in certain respects inferior to them.

As an alternative to borax, another material which may be employed to facilitate the production of the emulsion is lanolin. Here is a formula :—

LANOLIN COLD CREAM

Almond oil	55·5
Beeswax, white	19·0
Lanolin, anhydrous	3·5
Rose-water, undiluted	22·0
Perfume	q.s.

To make this cream, melt the beeswax and lanolin in the oil in a basin heated over boiling water. Allow the mixture to cool somewhat, and then gradually pour in the rose-water, previously warmed a little. Well stir the preparation until cold, working in the perfume as the cream cools.

This cream is not quite white. It may, however, be whitened by thoroughly rubbing it in a mortar with zinc oxide, B.P., using about 2 parts of this substance to every 100 parts of cream. The resulting cream is rather stiff. It is not recommended for the face, but may be usefully employed for cleansing the hands.

SOME OTHER VARIETIES OF COLD CREAM

Other materials which are sometimes incorporated with the cold cream include lard,

glycerol, alcohol, distilled extract of witch-hazel, etc., etc. So called theatrical cold creams often consist of nothing but mixtures of lard with cocoa butter. The latter is a fat obtained from cocoa beans, which melts when applied to the skin. The trouble with lard is that it goes rancid so easily. It is then not only unpleasant to use, but very injurious. Its keeping properties are somewhat improved by incorporating a little gum benzoin with it.

The addition of alcohol to cold cream increases its cooling properties, as the alcohol evaporates very readily; but this adds considerably to the cost of preparing it.

Cold creams containing glycerol seem to be favoured in France. They are troublesome to prepare, and the addition of the glycerol appears in no way to constitute an advantage. When the action on the skin of glycerol or of such materials as witch-hazel is desired, it is far better to incorporate these in creams specially designed for ready absorption. Cold cream is essentially a cream for cleansing the skin, and should be dedicated to that one purpose by all devotees of the cult of Beauty.

CHAPTER VI

MODERN VANISHING CREAMS

VANISHING cream is, relatively speaking, a modern invention. It is one item, and a very important one, in a long list of useful cosmetics for which the woman of to-day is indebted to the patient researches of a fairly numerous body of scientists who, all unbeknown to her, are intent on meeting her every desire in the domain of charm and beauty.

THE UTILITY OF VANISHING CREAM

Strictly speaking, vanishing cream does not vanish when applied to the skin. It forms a thin and practically invisible layer of an adhesive, but non-greasy, character, which constitutes an admirable basis for the application of powder. So indispensable an article of her toilet has vanishing cream become that it is, perhaps, difficult for the woman of to-day to realise how the woman of yesterday was compelled to make her toilet without its useful aid.

She had to apply powder to her bare skin, or else to use a cream of a sticky or greasy character. No wonder face powder was held to be harmful to beauty and the cause of the many bad complexions which women of maturer years then displayed.

Used properly with vanishing cream, face powder is a very useful preservative of a good complexion. Used without the aid of vanishing cream and imperfectly removed from the face at night, it may prove anything but this.

COMPOSITION OF VANISHING CREAMS

What, then, is vanishing cream? Vanishing creams, like cold creams, are emulsions. Unlike cold creams, however, they are not emulsions of water in oil containing wax. On the contrary, they are emulsions of stearic acid in water containing soap.

Stearic acid is one of the fatty acids I mentioned in Chapter IV. It is obtained from certain of the harder fats, and when pure is a perfectly white substance devoid of odour. It is not itself a fat, nor does it resemble ordinary acids, save in its power of condensing with alkalies to form salts. These salts are soaps.

Stearic acid is insoluble in water, but it can

be emulsified by suitable agents, of which soap is one.

HOW VANISHING CREAMS ARE MADE

Vanishing creams are manufactured by treating pure stearic acid with a suitable alkali in the presence of water. The quantity of alkali used must be insufficient to condense with all the acid. The soap formed by the condensation of part of the acid with all of the alkali serves to emulsify the balance of the acid, a cream being thus formed, which is then nicely perfumed.

Various alkalies are used for the purpose, such as caustic potash, caustic soda, sodium carbonate and ammonia. Whilst, however, as will be evident from this brief description, vanishing creams are very simple in composition, they are very "tricky" to make with success. I do not think, therefore, it would be particularly useful if I gave formulæ for their preparation. They constitute a type of cosmetic which cannot be successfully prepared at home, save by someone fortunately possessed of adequate equipment and considerable experience and skill in chemical manipulations. It is better, in general, to rely on one or other of the leading brands rather than to attempt to make vanishing cream oneself.

CHOOSING VANISHING CREAM

A certain amount of discretion is, however, necessary in making a choice of vanishing cream. When the cream is properly made, the whole of the alkali employed is used up to form soap which dissolves in the water present, and the soapy water and stearic acid is then beaten up to form a foamy emulsion which constitutes the cream. If, however, the method of manufacture is faulty, some unchanged alkali may remain in the cream and exercise a deleterious action on the skin. Whilst the perfume is important, one ought not, therefore, to purchase a cream on the basis of the perfume alone. If it is found that the cream produces the least sense of harshness or irritation when rubbed into the skin, it may contain unchanged alkali, and should be rejected. Indeed, this is a golden rule with all cosmetics. When we are compelled to seek medical aid for the elimination of some disease from the system it may be necessary for us to use medicaments of an unpleasant nature, whose first effects may be anything but agreeable ; but this is never the case in the domain of cosmetics. A good cosmetic should always be agreeable to sight and smell and pleasant to employ. If it offends the eye

or the nose, and especially if it is disagreeable to use in any way, it is not a good cosmetic, and had better be thrown in the rubbish bin.

GLYCEROL IN VANISHING CREAMS

In the manufacture of vanishing creams a small proportion of glycerol is often added to the other constituents, a practice which, it would seem, is more favoured in France and the U.S.A. than in our own country.

I have nothing to say against this practice from the hygienic point of view, as there is too much water present in the creams for the glycerol to have any irritating action. Indeed, water is the chief constituent of all vanishing creams.

The glycerol, however, is objectionable for quite a different reason. Owing to its hygroscopic qualities, little drops of water are apt to be formed when vanishing creams containing glycerol are employed as a basis for face powder. These force their way through the powder and produce a very unsightly effect.

If you have been bothered with this happening, you now know the cause of the trouble and the remedy—use a different vanishing cream, avoiding French and American brands.

A SKIN PROTECTOR

The question is often asked by women who value their complexions : Is vanishing cream good for the skin ? The answer is that properly made vanishing cream is without action either good or bad on the skin, and cannot take the place of emollient creams intended for night use. It is essentially a day cream, and is the day cream *par excellence*, since, used properly in conjunction with a good face powder, it serves to protect the skin against the inclemencies of the climate and to protect the pores against the entry of dust and bacteria.

In the morning, after the face has been washed and toned up, either with cold water, or, in case of need, a good astringent lotion, a little vanishing cream should be carefully rubbed in and followed by a light application of a good face powder of a carefully selected tint. The same procedure, of course, must be followed in the evening when a face powder of a slightly different tint may be indicated. The cream forms an admirable basis for the powder, which it prevents from entering the pores, and it facilitates the removal of the powder when the face is washed. The object, of course, must be never thickly to coat the

complexion, so as to hide it, as was once upon a time the custom, but rather to enhance its natural beauty and to give it a lovely peach-like bloom.

CHAPTER VII

EMOLLIENT AND ASTRINGENT CREAMS: (A) GREASY.

HAVING dealt with the creams intended for day use and for cleansing the skin, it now becomes necessary to consider the creams which are used at night-time to beautify the complexion and to remedy slight defects. Doctors sometimes write disparagingly of night creams, and there is no doubt that creaming the face can be overdone, with the result that the skin never has an opportunity of breathing. This, of course, is very bad for it. On the other hand, it has to be remembered that we are not living under perfectly natural conditions. Abnormal defects call for abnormal remedies. In a sense, the constant washing of the skin, which hygiene and cleanliness absolutely demand, is not perfectly natural. The washing inevitably removes from the skin its natural lubricant, the sebum. It is not surprising that the sebaceous glands are sometimes unequal to the extra task thereby thrown upon

them. Many skins, in consequence, tend to be too dry. The defect has to be overcome by the application of a suitable emollient cream, which will lubricate the skin, softening its texture and keeping it in a perfectly healthy condition.

LANOLIN

Now it is obvious that if we can obtain a material which is similar in its character to the sebum, we shall have secured a very suitable basis for the preparation of emollient creams. And it is exactly for this reason that lanolin creams offer themselves as far and away the best of all emollient creams of the greasy type.

As mentioned in a preceding chapter, lanolin is a fat, or, more correctly, a wax, obtained from the wool of sheep, and in its chemical composition it resembles the sebum very closely. They each contain a substance known as cholesterol, associated with which are traces of a related substance, ergosterol, which, under the action of sunlight, is partially converted into vitamin D.

TWO FORMS OF LANOLIN

Lanolin is obtainable in two forms, which are distinguished as " anhydrous " lanolin (or

lanolin free from water) and " hydrous " lanolin (or lanolin containing water).

Anhydrous lanolin forms a yellowish, tenacious, sticky mass, which, unless highly purified, has a disagreeable odour. It possesses the remarkable property of being able to absorb a considerable quantity of water, the resulting product constituting hydrous lanolin. Hydrous lanolin is paler in colour than the anhydrous variety ; it is softer and of a more creamy character. Suitably perfumed, it is often used for toilet purposes, though by itself it does not form a very serviceable emollient cream. The hydrous lanolin of *The British Pharmacopœia* contains 70 per cent. of anhydrous lanolin and 30 per cent. of water. It can easily be prepared by melting anhydrous lanolin in a warmed mortar, and then slowly adding the requisite quantity of warm distilled water, with constant stirring.

IMPORTANT PROPERTIES OF LANOLIN CREAMS

Now one of the functions of the skin is to act as a protective coating to the body and to prevent the ingress of deleterious materials. Substances, in general, are much less readily absorbed by the skin than is commonly sup-

posed. Owing to its similarity to the sebum, lanolin, however, when properly prepared, is very readily absorbed. It forms, therefore, not only an excellent emollient, but a useful material for assisting the absorption of various medicaments with which it is properly compounded.

Anhydrous lanolin would not be at all a pleasant material to apply to the skin, owing to its very sticky character. Moreover, it would probably produce irritation through the absorption of moisture. For toilet purposes, therefore, lanolin must always be rendered hydrous. Even this, however, is not enough. Experiments have shown that hydrous lanolin is by no means readily absorbed. For ready absorption to take place, the hydrous lanolin has to be compounded with such materials as soft paraffin or a suitable vegetable oil. This is somewhat surprising, since soft paraffin itself is absorbed only very superficially. The explanation is probably to be found in the fact that lanolin creams prepared with " vaseline " or vegetable oils and lanolin are much softer and less viscous than hydrous lanolin itself.

Owing to their ready absorption by the skin, lanolin creams are often known as " skin-foods ". This term, which originated, I believe, in

America, is really rather misleading. The skin, like every other organ of the body, derives its nourishment or food simply and solely from the blood. As, however, these creams do supply the skin with the lubricant so necessary to its health, the name "skin-food", perhaps, may be allowed in a somewhat metaphorical sense.

SOME OTHER PROPERTIES OF LANOLIN

Before passing to a description of how some useful lanolin creams may very easily be made, certain other properties of lanolin which make it of service in cosmetics may be mentioned. It is worth noting that, unlike true fats, lanolin shows no tendency to go rancid. On the contrary, it possesses to some extent the properties of an antiseptic. Its antiseptic powers, it is true, are very slight; but over and above these, lanolin prevents infection by the exclusion of bacteria from the pores of the skin. As already mentioned, lanolin is an emulsifying agent. This is rather important, because although soft paraffin and water will not mix with each other alone, a considerable quantity of water can readily be incorporated with a mixture of lanolin and soft paraffin to produce a very pleasant emollient cream.

GREASY CREAMS AND SUPERFLUOUS HAIR

Many women refuse to use any creams of a greasy type, at any rate on their faces, because they fear that a growth of superfluous hair may thereby be produced. These fears, though not completely baseless, are, in most cases, very much exaggerated. Scientific experiments recently conducted in Germany with depilated rabbits, mice and guinea-pigs have shown that gentle rubbing with " vaseline " or " vaseline " and lanolin causes slight revival of hair growth, but that if the rubbing is severe, so as to produce hyperæmia (reddening of the skin), growth is considerably stimulated.[1]

It is well known that practically all oils strengthen the hair, although their strengthening action would seem to be of a mechanical rather than a physiological nature. It is not surprising, therefore, that lanolin, so closely allied in composition to the hair's natural lubricant, should exercise a stimulating effect on its growth. It is obvious, however, from the experiments mentioned, that this stimulation is mainly, if not entirely, due to the increased

[1] Some experiments carried out on women in America a few years ago indicated no increased hair growth as a result of applying " petrolatum " (soft paraffin). The parts treated were the thighs and eyebrows.

supply of blood to the hair follicles brought about by the massage. Lanolin creams are often used in connection with massage, a practice which would certainly seem to be very dangerous from the point of view of causing a growth of superfluous hair, and which I strongly advise readers to avoid. The mere application of a greasy cream, unaccompanied by rubbing, would, however, seem to be quite free from this danger; and, in certain conditions, is most beneficial to the skin.

PREPARATION OF LANOLIN CREAMS

Here are two formulæ, by means of which delightfully soft lanolin creams may be prepared, which will be found very agreeable to use, and which constitute excellent emollient creams for the skin :—

Lanolin Cream A

Lanolin, anhydrous	33
Soft paraffin (white " vaseline ")	33
Orange-flower-water or rose-water, undiluted	33
Perfume	1

Lanolin Cream B

Lanolin, anhydrous	55
Almond oil	12
Rose-water, undiluted	32
Perfume	1

The two creams are made by similar methods. Place the lanolin and " vaseline " or almond oil in a mortar warmed to a sufficient temperature to melt the mixture. Then gradually add the rose-water or orange-flower-water with constant stirring, the perfume being incorporated as the cream cools.

Another method, which obviates the use of a mortar, is to heat the mixture of lanolin and " vaseline " or almond oil in a small basin by placing this over a kettle of boiling water. When the mixture is fluid, the warmed rose-water or orange-flower-water is slowly added and the cream stirred until cold, the perfume being added towards the end.

PERFUMING LANOLIN CREAMS

Owing to the fact that lanolin is rarely quite odourless, the scenting of lanolin creams is rather important. Fairly heavy perfuming is necessary. As will be seen from the formulæ given, the use of about 1 per cent. of perfume material is suggested, though, of course, this amount may be modified somewhat according to taste and the intensity of the odour of the materials employed. A useful essential oil for this purpose is French rose-geranium oil, mentioned in a preceding chapter. It has a

strong and agreeable odour of a rosy type, which is, however, a little coarse. A rather pleasant spicy effect can be got by mixing 8 parts of this oil with 1 part each of clove oil and synthetic essence of musk, and using this mixture to perfume the cream.

Verbena is another odour very suitable for lanolin creams. This may be simulated by using a mixture as under :—

Lemon-grass oil	10 drops
Lemon oil (expressed) . . .	6 ,,
Bergamot oil	2 ,,
Simple tincture of gum benzoin .	2 ,,

The above quantities will be found about correct to perfume 3 oz. of cream.

THE WITCH HAZEL

A material which may very suitably be incorporated with lanolin creams is that known as " distilled extract of witch hazel ".

The witch hazel (*Hamamelis virginiana*) is a shrub which grows in the United States and Canada, where it is often cultivated for garden purposes. Both its foliage and yellow blossoms are pretty, and the shrub blooms late in the year when the leaves have fallen and other flowers are faded. It is said to derive its rather curious

name of " witch hazel " from the fact that twigs of the plant have been used in water divining.

PREPARATIONS OF WITCH HAZEL

Both leaves and bark contain an astringent principle which renders them of considerable medicinal value. A tincture of hamamelis is prepared by extracting the powdered bark with dilute alcohol, and a liquid extract of witch hazel is somewhat similarly prepared from the leaves. Both these preparations are powerful astringents. For cosmetic purposes only the distilled extract, which is weaker in its action and more agreeable to use, is employed. This differs from the two other preparations mentioned in that it contains only the volatile constituents of the plant. It is made by steeping the fresh leaves in distilled water containing a little alcohol for twenty-four hours and afterwards distilling.

Distilled extract of witch hazel forms a clear, colourless liquid, which looks exactly like water. It has a peculiar, but by no means disagreeable, odour. It is a most valuable preparation, owing to its mildly astringent and antiseptic properties; and its usefulness in treating bruises and small wounds deserves to be widely known. For application in cases such

as these, the solution, either undiluted or mixed with its own bulk of water, should be softly dabbed on the part affected, rubbing, of course, being avoided ; or a piece of cotton-wool soaked in the solution may be bound on to the injured spot.

WITCH HAZEL CREAMS

Lanolin creams containing witch hazel may be made in accordance with either of the formulæ already given in this chapter, by using a mixture of the distilled extract with rose-water in place of pure rose-water or orange-flower-water. For example, the formula for lanolin cream A may be modified as under, the method of making the cream being exactly as previously described :—

Witch Hazel and Lanolin Cream.

Lanolin, anhydrous	33
" Vaseline ", white	33
Distilled extract of witch hazel . .	26
Rose-water, undiluted . . .	7
Perfume	1

Witch hazel creams are used to tone up the skin ; and although it would be absurd to expect any cream to remove wrinkles or a double chin, the judicious use of creams of this type is well calculated to retard the formation

of these defects when they begin to make their appearance. These creams, moreover, are singularly serviceable to relieve chafing in the groin or any other part of the body, their emollient and astringent properties causing them, in such cases, to act immediately as though by magic. The hands and feet, also, are often benefited by judicious creaming with a lanolin cream.

CHAPTER VIII

EMOLLIENT AND ASTRINGENT CREAMS: (B) NON-GREASY

As mentioned in the preceding chapter, many women dislike using greasy creams, at any rate for the face; and, in view of what was said in the section dealing with this matter, it is, perhaps, as well that women having any strong predisposition to a growth of superfluous hair should not make too free a use of lanolin creams. Fortunately modern science is able to offer an alternative material by means of which excellent emollient and astringent creams can be made, entirely free from any greasy constituent. This material is glycerol.

Glycerol creams and jellies have many uses, and are, of course, generally to be preferred to lanolin creams in those cases where the skin shows any tendency to over-greasiness. There are many different creams and jellies of this type. I shall describe only some of the simplest and most serviceable.

As already indicated, in order to obtain the

full benefits of glycerol as an emollient, it is necessary to dilute it with water. Otherwise, owing to its very hygroscopic (or water-loving) character, it is apt to prove not soothing to the skin, but the exact opposite. A number of preparations of glycerol for toilet use contain very little water. These should always be applied by means of a moist cloth, the necessary water being added in this manner.

GLYCEROL AND STARCH CREAMS

When glycerol is heated with starch and a little water, a jelly is produced known as " glycerin of starch ". The proportions of the three ingredients as laid down in *The British Pharmacopœia* are as follows : glycerol, 13 parts ; starch, 2 parts ; distilled water, 3 parts. The preparation, which is a very useful one, can be made as follows : Place the glycerol, starch and water, thoroughly mixed together in the above proportions, in a small basin, and stand this on a shallow layer of sand contained in an old tin. Carefully heat the tin, and constantly stir the mixture until a clear jelly results, when the basin should be immediately removed from the source of heat. In making this preparation for cosmetic use, wheat starch should be employed, or, failing this, St. Vincent arrowroot. The

glycerin of starch should be stored in a well-stoppered jar, and not used until a few days after it has been prepared.

Glycerin of starch in itself constitutes an excellent emollient preparation, but it is too sticky for general use. It can, however, be made into very nice creams by the aid of zinc oxide in either of the following ways :—

FIRST METHOD OF PREPARATION

According to one method, the cream is made by incorporating glycerin of starch with zinc oxide and perfumed vanishing cream. The following formula may be used, but the proportion of vanishing cream may be considerably increased if desired :—

GLYCEROL CREAM A

Glycerin of starch	40
Zinc oxide, B.P.	5
Perfumed vanishing cream . . .	55

First, thoroughly incorporate the glycerin of starch with the zinc oxide by rubbing them together in a mortar until a homogeneous mixture is obtained. Then add the vanishing cream a little at a time and rub it well in.

The resulting cream is beautifully soft and white. It constitutes a very convenient form in which to apply glycerol to the skin. It does not

need to be applied with a damp cloth, as the vanishing cream present in it contains a high proportion of water.

SECOND METHOD OF PREPARATION

According to another method, the vanishing cream is dispensed with, and a cream-like product obtained by incorporating the glycerin of starch with zinc oxide and alcohol. The following formula may be used :—

GLYCEROL CREAM B

Perfumed alcohol	5
Zinc oxide, B.P.	5
Glycerin of starch	90

First rub the zinc oxide with the perfumed alcohol in a mortar, until thoroughly mixed. Add about one-fifth of the total amount of glycerin of starch and thoroughly incorporate this with the mixture by rubbing. Then incorporate the rest of the glycerin of starch in a similar manner, rubbing in a little at a time.

This is a glycerol cream of the " dry " type, and should always be gently massaged into the skin with a *damp* cloth. It closely resembles the famous " Crème de Simon ", which is world renowned as a valuable cosmetic for beautifying the skin.

GLYCEROL JELLIES

Glycerol jellies are made by incorporating glycerol with gelatin or various materials of a gelatinous or gummy character. They may be either dry or moist, according to the quantity of water they contain in addition to these ingredients. One of the best materials to employ for making glycerol jellies is gum tragacanth. This gum is obtained from the stems of a small shrub (*Astragalus gummifer*) indigenous to Persia and the Turkish Empire. As it is very troublesome to powder, it should be purchased in the powdered form, but it is very desirable to obtain this only from a reputable firm, as the gum is very variable in quality and the powder is much subject to adulteration. It should be quite white. When acted on by water the particles of the gum swell enormously, forming a thick mucilage somewhat resembling starch paste.

Here is a good and simple formula for making a very nice glycerol jelly by the aid of gum tragacanth :—

Glycerol Jelly

Gum tragacanth, powdered . .	2·5
Perfumed alcohol	6·0
Glycerol	30·0
Rose-water or distilled water . .	61·5

First rub the gum tragacanth with the alcohol in a mortar. Then add the glycerol, and rub the ingredients together until thoroughly mixed. Finally, add the water all at once, and continue the rubbing until a jelly of uniform consistency results.

This jelly can be applied direct to the skin, as it contains plenty of water, and will be found most agreeable and cooling to use.

WITCH HAZEL JELLY

Two materials which may very usefully be incorporated in glycerol jellies are witch hazel and benzoin. The character and uses of witch hazel have already been described. To make a very nice witch hazel jelly, all that is necessary is to replace part of the water in the last formula by distilled extract of witch hazel, as under :—

GLYCEROL AND WITCH HAZEL JELLY

Gum tragacanth, powdered	2·5
Perfumed alcohol	6·0
Glycerol	30·0
Distilled extract of witch hazel	30·0
Rose-water	31·5

Proceed exactly as for the last preparation, using the mixture of distilled extract of witch hazel and rose-water in place of the plain water

or rose-water. This preparation will be found excellent for whitening the skin.

BENZOIN JELLY

Gum benzoin is a material of a resinous character, which is formed by certain species of *Styrax* trees, native to the East Indies, when incisions are made in the bark. There are several varieties, differing in appearance, odour and composition, which are obtained from different species or varieties of trees. The sort most commonly employed, which is known as "Sumatra benzoin", occurs in greyish brown masses in which are embedded white tears or "almonds". It has a peculiar and agreeable odour of an aromatic character. Cinnamic and benzoic acids are amongst its constituents, in virtue of which it possesses good antiseptic powers. It is only very slightly soluble in water, but almost entirely soluble in alcohol, and is best employed in the form of the simple tincture (*Tinctura benzoini*, B.P.C.), which consists of a 1 in 10 alcoholic extract of the soluble constituents of gum benzoin. Used cosmetically in a suitably diluted form, gum benzoin has a mildly stimulating action on the skin. If employed to excess, however, it is apt to prove irritating.

The following formula will be found to yield a very nice benzoin jelly. The method of procedure is exactly as in the case of the simple glycerol jelly already described, the tincture of benzoin being mixed with the perfumed alcohol before addition to the gum tragacanth :—

BENZOIN JELLY

Gum tragacanth, powdered . .	2
Perfumed alcohol	3
Simple tincture of benzoin, B.P.C. .	2
Glycerol	30
Rose-water or distilled water . .	63

PERFUMING GLYCEROL CREAMS AND JELLIES

In the various formulæ which have been given for glycerol creams and jellies, "perfumed alcohol" will have been noticed as a constituent. As already mentioned in Chapter IV., when this material is indicated, almost any handkerchief scent which is of fairly strong odour may be employed, and it is a distinct advantage to use always one and the same perfume for the person, an individual note being thereby obtained. A few scents contain small quantities of ingredients which tend to irritate the skin. Experience will soon indicate if one's favourite scent is of this character. If

so, it should not be used for perfuming cosmetics or applied to the skin in any way.

On the other hand, you may like to try compounding your own perfumes for cosmetics ; I append, therefore, the four following formulæ, which are simple and good. In each case the quantities given are sufficient to make the number of parts of perfumed alcohol stipulated in the formulæ for the various creams and jellies :—

A. White Rose [1]

Rose-geranium oil, French	0·3
Patchouli oil	0·1
Essence of musk, synthetic	0·1
Alcohol (spirits of wine)	q.s.

B. Violet

Ionone, 100 per cent.	0·3
Bergamot oil	0·1
Terpineol	0·08
Heliotropine	0·05
Benzyl acetate	0·02
Musk xylol	0·02
Alcohol (spirits of wine)	q.s.

C. Lilac

Terpineol	0·23
Hydroxy-citronellal	0·06
Phenyl-ethyl-alcohol	0·06
Benzyl acetate	0·02
Balsam of Peru	0·02
Ylang-ylang oil	0·01
Alcohol (spirits of wine)	q.s.

[1] This blends well with the odour of witch hazel.

D. Fancy Bouquet [1]

Ionone, 100 per cent. . . .	0·2
Bergamot oil	0·1
Rose-geranium oil	0·1
Benzyl acetate	0·1
Alcohol (spirits of wine) . . .	q.s.

[1] For benzoin jelly.

CHAPTER IX

THE MUD-PACK TREATMENT

THE employment of mud for cosmetic purposes is very ancient. For centuries, Oriental women have been in the habit of covering the whole of their bodies with mud in order to preserve and to enhance the delicate beauty of their skins. In recent years the mud-pack treatment has come much to the fore in Western Europe and America as a means for beautifying the complexion. Unfortunately, owing to the extravagant claims made by manufacturers of certain types of pack, the treatment is in danger of falling into disfavour, for sensible women, realising the absurdity of some of these claims, have formed the opinion that the whole thing is merely humbug. This is much to be deplored, as the mud-pack treatment is quite a useful cosmetic measure. Its functions are detersive and stimulating, though naturally we must not expect it to transform the complexion and features of a hideous old hag into those of a lovely young woman.

FULLER'S EARTH AND CLAY

The material which is most in favour as a basis for the preparation of the packs used in the treatment appears to be fuller's earth. This is a soft, friable, granular clay, with a somewhat greasy feel, which disintegrates when placed in water to form an impalpable powder. It occurs in the jurassic strata of the West of England and elsewhere. Sometimes bluish in colour, it is more frequently a light, dirty brown. Its name is derived from the fact that at one time it was extensively employed for fulling wool. Fuller's earth is also used, though to a less extent than formerly, as a dusting powder for babies. For this purpose, however, it is inferior to purified talc. Crude fuller's earth sometimes contains the bacteria responsible for tetanus, cases of which dread disease have been known to arise from its use. It can, however, be rendered quite harmless if sterilised by heating.

Chemically speaking, fuller's earth is an impure form of hydrated aluminium silicate, containing iron and magnesium. Aluminium silicate is an extremely stable and inert substance. It is quite insoluble in all ordinary solvents, and can be decomposed only by means of the most drastic chemical treatment.

Kaolin, which is much employed in the manufacture of face powder, is a very pure form of hydrated aluminium silicate, obtained by purifying the best china clay. Talc is a naturally occurring form of hydrated magnesium silicate. It is purified for cosmetic use, and is much employed in making toilet powders. It has a greasy feel, though quite free, of course, from any form of grease.

COMPOSITION AND ACTION OF MUD-PACKS

In the preparation of mud-packs the fuller's earth is compounded with glycerol, tincture of benzoin and a little perfume, and the resulting " cream " is made into mud with warm water or starch paste previous to application to the face. Some proprietary packs may contain other ingredients, including physiologically active ones ; but logically, a mud-pack would seem to provide a means of applying medicaments to the skin much inferior to creams or jellies based on lanolin or glycerol. Some special claims have been made for fuller's earth as distinguished from other forms of clay—claims which I believe to be quite baseless. The gum benzoin present would, of course, exercise a mildly stimulating action on the skin ; but,

apart from this, the action of the pack appears to be of a mechanical rather than a chemical character. As the mud applied to the face dries, it hardens and contracts, the evaporation of the liquid and consequent tightening of the pack being often hastened by fanning the face during the process. This produces a local hyperæmia or increased flow of blood to the surface of the skin, producing that healthy bloom of youth which is so attractive. Moreover, when the pack is removed, it brings away with it particles of dust and skin *débris* from the pores of the skin. It is well known that a Turkish bath will extract some dirt even from the skin of a person who has just bathed in the ordinary manner. The action of the mud-pack may be compared with this, as constituting a very useful detersive process.

RECIPE FOR A MUD-PACK

It will be noticed that, if the foregoing account of the action of the mud-pack is correct, its efficiency really depends, not upon any special chemical activity of the fuller's earth, but rather on its chemical inertness. Now the khaki colour of fuller's earth is by no means attractive, and a woman's face wearing a mask of mud made from this material is not a pretty

sight. It is just possible that the unpleasant appearance of fuller's earth may be a reason for some women believing in its efficacy. We are not yet entirely free from notions derived from the days when medicine to be good had to be nasty, and folk poured down their throats decoctions made from toads, vipers, worms, puppy dogs and excrement. No doubt the idea underlying such practices was that disease was due to evil spirits and if only something nasty enough was taken the evil spirit responsible for the trouble wouldn't be able to stand the medicine, but would leave the patient in peace. Every doctor knows that even to-day patients of a particular type are sometimes benefited by drinking water, suitably coloured and flavoured, provided it is taken " three times a day " out of a medicine bottle, the beneficial effect, of course, being due to auto-suggestion. This might be urged as a reason for sticking to fuller's earth in the preparation of mud-packs, but it is better to rid the mind of superstitious notions and to use cosmetics intelligently.

For this reason, I suggested in a trade journal [1] some little time ago the employment for mud-pack purposes of purified kaolin mixed with a little talc as an alternative to fuller's

[1] *The Hairdressers' Weekly Journal*, August 31st, 1929.

earth. This produces a perfectly white mud. Here is the formula I published :—

WHITE MUD-PACK

Purified kaolin	47·5
Purified talc	5·0
Glycerol	2·0
Simple tincture of benzoin	7·5
Perfume	1·0 or q.s.
Thin starch paste	37·0 or q.s.

To make the preparation all that is necessary is to rub the kaolin, talc, glycerol, tincture of benzoin and perfume together in a mortar until thoroughly incorporated. For perfuming, either petitgrain oil or bergamot oil (which is better, but dearer) may be used. The resulting " cream " keeps indefinitely. It should not be mixed with the starch paste (or warm water, if preferred) until it is actually required for use.

THE TECHNIQUE OF THE TREATMENT

Giving oneself a mud-pack is not particularly easy without practice, and I expect that you would prefer to have the operation carried out for you by an expert. A few hints as to the best method, however, may not be out of place.

First of all, the face should be wiped with a towel moistened with warm water, after which

it should be thoroughly cleansed with cold cream. All unabsorbed cream must be wiped off with a dry towel or cotton-wool, and the face should then be enveloped in a hot towel, in order to relax the skin. The mud must then be immediately applied. It must not be rubbed in, but spread on rather thickly, so as to form a mask covering the whole of the skin of the face up to the " roots " of the hair and down the neck as far as may be desired, the eyelids, nose and the region under the chin not being forgotten. The pack is left on for about fifteen to twenty minutes to dry and to harden, which process, as already mentioned, can be facilitated by gently fanning the face. During this period it is absolutely essential for the muscles of the face to be kept perfectly rigid, otherwise the pack will crack and the whole treatment will be vitiated.

The mud is then *completely* removed with cotton-wool or a towel moistened with warm water, after which the face may be treated with an astringent cream or jelly or, better, perhaps, an astringent lotion, diluted distilled extract of witch-hazel being very suitable for the purpose.

Employed in this manner the mud-pack treatment will be found a very useful one, leaving the skin much freshened and invigorated.

Defective complexions are often improved by its aid and the beauty of good ones is preserved. The treatment can be extended to other parts of the body as may be considered desirable.

CHAPTER X

FACE POWDER

THERE is no beauty preparation employed more widely by women to-day than face powder. Many women who abjure the use of other cosmetics find an occasional indulgence in the powder-puff agreeable and advantageous to their appearance. The question whether powder is really good for the skin is, therefore, one of the greatest importance, which no woman who cares for her health and good looks can afford lightly to ignore.

Very different views have been expressed. It has been said that not only does face powder add nothing of value to one's appearance, but that using it has ruined many complexions. On the other hand, it has been claimed that face powder not only adds a finishing touch to a beautiful skin, but serves to protect it from harm.

Both these opposing views have some truth in them. Everything depends on the nature of the ingredients of which the powder is made,

and especially upon the manner in which it is applied to and removed from the face.

FACE POWDERS: ANCIENT AND MODERN

Once upon a time, chalk from the cliffs of Dover was highly esteemed for use as face powder. It must have made the ladies who used it look more like clowns than daughters of Eve. The old idea seems to have been that a face powder should be dead white in colour and very opaque, so that when applied to the skin it completely hid it. It is not surprising that lovers of true beauty protested against its use. Hear what Agnolo Firenzuolo makes a wise woman say in his celebrated dialogue *Of the Beauty of Women*[1]: "To-day [1548] they are used to paint and whiten the whole face, just as lime and plaster cover the face of a wall; and peradventure those foolish maids believe that men, whom they seek to please, do not discern this foulness, which I would have them to know wears them out and makes them grow old before their time, and destroys their teeth, while they seem to be wearing a mask all the year through."

Modern face powders, however, are of quite a different character. They are usually semi-

[1] Translated by Clara Bell (London, 1892).

transparent and tinted to tone with the colour of the skin. The object in using them is not to cover up the complexion, but to give it a peach-like bloom, to protect it against the inclemencies of the weather and the entry of dirt and dust into the pores, and to absorb perspiration. Most high-class modern face powders will admirably serve these objects, provided they are used in a proper manner.

HOW TO USE POWDER

The correct method of applying and removing face powder is, indeed, a matter of great importance. The best face powder, perfectly free from any noxious ingredients, may prove harmful if used improperly. Even so innocent a material as starch may cause serious trouble if it is allowed to get into the pores of the skin and remain there to ferment.

There is a golden rule concerning the use of face powder, which can be expressed in very few words: Always apply face powder over vanishing cream, and always remove it with cold cream. Let me repeat what I have said in the chapter on "The Care of the Face". In the morning, after the face has been bathed, toned up with cold water or an astringent

lotion, a little vanishing cream should be rubbed in, and a good face powder of a well-chosen tint lightly dusted on by means of a small puff. In the evening, it will probably be necessary to use a face powder of a slightly different tint, which again should be applied over vanishing cream, after the face has been cleansed. And washing alone will not cleanse the face perfectly ; cold cream must be used as well. It is especially important completely to cleanse the skin with cold cream from every particle of face powder and accumulated dirt before retiring for the night.

Of course, all this is more troublesome than just dabbing powder on the face without preliminary preparation and not bothering to remove it properly at night. But the trouble is worth while, as thereby the beauty of the complexion may be preserved and enhanced, and face powder found to be a very real boon.

COMPOSITION AND CHARACTER OF MODERN FACE POWDERS

If you are interested in the composition of face powder, the methods adopted for manufacturing, tinting and perfuming it, let me refer you to *Paint, Powder and Patches*, where these

matters are considered in some detail. A brief account, however, will not, perhaps, be out of place here, and may be of service in helping you to make a good choice of face powder.

We may usefully consider the ingredients of modern face powders as falling under three heads, the basic ingredients, the colouring matter, and the perfume material. In purchasing a powder, it is quite a mistake to consider only one of its characters to the neglect of all others. It is certainly desirable that the powder should exhale a fascinating fragrance; but still more important that it should be of the right tint; and most important of all that it should contain nothing of a noxious or injurious character.

A good face powder should never irritate the skin in the slightest, but rather soothe it. It should be light, not too opaque, adhesive, possess good "slip", and be very fine and uniform in texture.

These characters are obtained, in the first place, by the manufacturer making a wise choice of ingredients. The selected materials are finely ground and thoroughly sifted and mixed by means of a special machine, the colouring matter and perfume being incorporated at the same time.

BASIC INGREDIENTS

One of the most important ingredients of modern face powder is kaolin, a specially fine form of china clay, which has been mentioned in the foregoing chapter. It is perfectly harmless, and is a good absorbent for perspiration.

Other useful ingredients are talc, magnesium carbonate, and magnesium stearate. Talc gives the powder "slip". This material is neither opaque nor very adhesive. Toilet powders used for drying the body after the bath and for allaying irritation due to chafing usually contain a high proportion of talc, and are often known as "talcum powders". They are excellent for the purpose for which they are intended, and are also found serviceable by men for use after shaving in order thoroughly to dry their chins and assuage what the French graphically call the "fire of the razor".

Magnesium carbonate, which is very white and light, makes the powder agreeably "fluffy". It is also used for maturing the perfume. Precipitated chalk is sometimes employed in place of it, but is not so good. It has been recently pointed out that chalk is liable to dissolve in the secretions of the skin and thereby to set up irritation.

Magnesium stearate, a material chemically allied to hard soap, is also very light and white. It is used to render the powder adherent.

Talc, magnesium carbonate and stearate, as well as kaolin, are quite harmless to the skin.

STARCH AND ZINC OXIDE

Starch and zinc oxide, two other common ingredients of face powders, call for some special remarks. Starch is quite innocuous provided the powder is always completely removed from the face at night. It is light and absorbent. The best powders contain only rice starch, preferable to all others on account of the fineness of its particles. Cheaper powders contain maize starch (cornflour) or other starches, which are by no means so good.

Zinc oxide is used less freely to-day than in the past. It renders the powder opaque. Provided it is not present in too large an amount, it has a soothing action on the skin and its slight astringency is useful. The constant use of powders containing a large proportion of an active material, such as zinc oxide,[1] is, however, open to objection.

[1] I have suggested titanium dioxide, a perfectly inert substance, as an alternative material to employ when great opacity is needed, which is not, however, the case with face

OBJECTIONABLE MATERIALS

Finally, in addition to precipitated chalk, already mentioned, there are a few materials whose presence in face powder is open to objection. Zinc stearate, sometimes employed as a substitute for magnesium stearate, is said (according to reports coming from America) to have occasioned illness and even death in cases of children who have used powders containing it. This toxic action of zinc stearate, however, needs confirmation. The material appears to be fairly widely employed in Great Britain and elsewhere, apparently without evil results.

Barium sulphate is sometimes used in compacts,[1] and is objectionable, not only because of its high density, but especially because, unless absolutely pure, it is very poisonous. Certain compounds of bismuth are also occasionally

powders intended for everyday use. See " Science and Cosmetics ", *Science Progress*, vol. 24, pp. 470–479 (January, 1930), and " Titanium Dioxide and its Cosmetical Uses ", *The Perfumery and Essential Oil Record*, vol. 20, pp. 408–410 (October, 1929).

[1] A similar remark applies to strontium sulphate, also used for compacts. When pure it is probably innocuous, but it may be contaminated with poisonous barium salts. Barium carbonate, sometimes met with in compacts of Continental manufacture, is definitely poisonous.

employed. It has been said that bismuth exercises a toxic action if absorbed through the skin, though this view has been controverted. The compounds in question are very heavy and opaque. They are expensive and are relatively seldom to be found in face powders other than some special kinds intended for theatrical use.

TINTING MATERIALS

Face powders and rouges (which latter are simply face powders coloured red) are tinted by means of a large variety of materials, including both dyes and insoluble pigments. Some of the dyes used are the same as those employed for tinting foodstuffs. Those of a pink or red colour are the most important and include eosine, erythrosine, phloxine, rose bengale and carmoisine. Provided they are pure, they are quite harmless. Amongst pigments which are also harmless when pure, mention may be made of carmine, alizarine crimson lake, ochres, siennas, umbers, Armenian bole, ultramarine, cobalt blue, and cobalt green. A few pigments which are sometimes used are objectionable. Zinc yellow is very poisonous, and so is geranium lake, which latter appears to be employed for making a particularly bright rouge used for theatrical purposes. On the

whole, however, most of the materials used for tinting face powders and rouges are quite harmless in the quantities present. There is, therefore, no cause for you to get alarmed because some manufacturers are less punctilious in this matter than others, though there is need for purchasing only the guaranteed products of high-class firms.

CHOICE OF TINT

The tints most in demand range from a pale cream to a rather pronounced pink, and are often called by somewhat fanciful names, though " Rachel " is well understood to designate a light cream and " naturelle " a cream with a suggestion of pink.

Speaking generally, " Rachel " and allied tints are most suited to brunettes, whilst " naturelle " and similar tints serve better the needs of blondes. In choosing a tint, however, it should always be remembered that the tint of the powder is not necessarily that of the complexion, nor that which it is desired the latter should be, but one which will blend with the complexion so as to produce a pleasing result. Let me repeat that good modern face powders are more or less semi-transparent and are not intended to be used to blot out the

complexion, but rather to enhance its natural beauty.

It is, therefore, not possible to lay down hard and fast rules for choosing the right tint. The only really reliable method is to experiment with various shades, inviting the comments of one or two candid friends. This is really rather important, because many women fail to use the tint or tints best suited to their complexions. When the powder being selected is for day use, the experiment should be carried out in fairly bright sunshine ; whilst powders intended for evening use should be experimented with under conditions of artificial lighting. This again is important. The same tint will rarely serve (if one desires what is best) for both purposes.

SOME *OUTRÉ* SHADES AND THEIR USES

Blue powder is sometimes used for shading the eyelids. This, however, is a device more suited to the stage than the street, the ballroom or the restaurant. It never, in my opinion, looks well in any illumination less intense than the glare of the footlights.

Mauve and green seem *outré* colours for face powders, but they are distinctly useful for hiding red noses and toning down complexions that are too florid. Experiment will determine

which is the better in any particular case. In any event, the tint of the powder should be quite pale. A green powder which is too dark results in an effect which is anything but pleasing. Provided, however, the tint is sufficiently light and of the correct, somewhat bluish, shade, green face powder will sometimes be found very serviceable even in the truth-revealing light of day. It should, of course—and this is true of all face powders—be very lightly applied.

CHAPTER XI

ROUGE AND LIPSTICK: THEIR USE AND ABUSE

As mentioned in the previous chapter, rouge is simply a form of face powder strongly tinted red. Essentially, its composition follows along the same lines as other forms of face powder. When, however, the manufacturer wishes to put the preparation up in the very convenient and popular form of a compact, he has to select his basic materials with especial care in order that a firm mass may be obtained which will not crack. Compacts are made by compressing the rouge in a special machine, the powder usually being first moistened with a solution of a resinous or gummy material which serves to hold the particles together.

COLOURS FOR ROUGE

Whilst the successful preparation of compacts entails a very careful choice of basic ingredients and the use of a special machine, the preparation of rouge in powder form by staining white

face powder is very simple to carry out. Perhaps you would like, especially if you are at all used to handling colours, to essay the task of making your own rouge. All that is required is a supply of a suitable white face powder, some absolutely pure red colouring matters, such as are used for colouring foodstuffs, and a pestle and mortar.

Amongst colouring matters suitable for use, the following may be indicated: eosine, yellowish shade; phloxine; carmoisine; carmine. All must be of the highest grade of purity.

Eosine, phloxine and carmoisine are coal-tar dyes, soluble in water, and harmless if pure. Eosine, yellowish shade, gives, as its name indicates, a yellowish shade of red, whilst phloxine produces a very bluish shade of red. Carmine is a lake pigment prepared from the colouring matter of the female cochineal insect. It, too, is harmless when pure. It is insoluble in water, but will dissolve in strong ammonia.

MAKING ROUGE IN POWDER FORM

To make rouge, proceed as follows: First weigh out the correct proportions of face powder and colouring matter. In the case of eosine, 1 part of colour to 50 parts of face

powder may be used. In the cases of carmoisine and phloxine, 1 part of colour to 100 parts of face powder will probably be found enough. When, however, carmine is used, more of the colour is necessary, namely, 1 part of colour to about 20 to 25 parts of powder. It is better to err on the side of using too much colour than too little, since, if the colour of the resulting rouge is too intense, it can always be brought down by the addition of more uncoloured face powder.

The colour is dissolved in a very little water, or, if carmine is used, the least possible quantity of strong solution of ammonia. The coloured liquid is then gradually mixed with the powder, the two being ground together in a mortar until the colour is quite uniformly distributed. The damp powder is then placed in a warm (not hot) place to dry, and, if carmine has been used, for the odour of the ammonia to become dissipated. The dry rouge is finally reground in a mortar, and preserved in small boxes for use.

The different colouring matters produce rouges of quite different shades, any one of which may be mixed with any other or diluted by the addition of uncoloured face powder. A very large range of shades is thereby obtainable.

Somewhat browner shades may be got by thoroughly mixing the rouge in a mortar with a little pure burnt sienna or Armenian bole. These two materials are earth-pigments owing their brownish-red colours to the presence in them of iron. The latter occurs naturally ; the former is made from raw sienna—which also occurs naturally, and is a light brown in colour—by strongly heating or " burning " it. Both pigments are innocuous when pure.

USE AND ABUSE OF ROUGE

Rouge is extremely popular to-day. It is, indeed, a distinctly useful cosmetic, but it is one which is more often abused than used to real advantage. Some women use rouge who do not need its aid, many use too much of it ; whilst, again, a wrong choice of colour is often responsible for rouge marring the appearance rather than improving it.

The ideal which should always be aimed at is to achieve those rosy cheeks which only good health can give, and to regard rouge rather in the light of a temporary expedient or as a means for giving just a finishing touch to the appearance.

It is of the greatest importance to discover

exactly where to place your rouge and exactly what shade to employ. I have already explained how rouge may be used to effect an apparent alteration in the contour of the face, but apart from such special purposes, the following procedure will be found very helpful as indicating where rouge may be advantageously applied.

WHERE TO APPLY ROUGE

Wring out two towels, one with very hot and one with very cold water. Apply the hot one to the face, and then, whilst your face is hot, rapidly cool it with the other one. This will cause a rush of blood to your cheeks, and it is just where the flush shows that the rouge should be applied if a perfectly natural-looking result is desired.

The shade of rouge selected should be one which matches the colour of the glow. The experiment, therefore, should be carried out in a good light, with a supply of different shades of rouge at hand from which the right one may be selected. If the rouge is intended for daytime use, the selection should be made in strong sunshine. On the other hand, a rouge for evening use should be chosen by repeating the experiment in the evening in a room well lit

by electricity. The same shade of rouge rarely serves both purposes equally well.

A touch of rouge on the lobes of the ears and on the point of the chin sometimes adds charm to the appearance. Test this for yourself, inviting the criticisms of one or two candid friends.

Above all, remember always to use rouge sparingly—a face which is obviously rouged is never attractive.

LIPSTICKS

The young woman of to-day has been subjected by her elders to a great deal of criticism, and, perhaps, for nothing as much as her addiction to the lipstick. It is undoubtedly true that using the lipstick has become something in the nature of a craze, many of the younger generation especially employing this little cosmetic who by no means need it. Frenchwomen are supposed to be more skilled in the use of cosmetics than the women of our own country; but my own impression is that in Paris there is even more misuse of the lipstick than in England—the sight I have there experienced of woman after woman with lips of exactly the same colour and shape produced

by the lipstick's aid becoming extremely monotonous and, indeed, positively disagreeable.

On the other hand, there is not the slightest doubt that there are some lips which are definitely improved by a light touch of a lipstick of a carefully chosen shade. Nor is the employment of lipstick attended by any dangers to health, provided the colouring matter present is pure and of a harmless character, and the stick is not of so hard a consistency that irritating friction is necessary to transfer the colour to the lips. The latter point is one of great importance, as constant irritation of the lips may have most serious consequences, endangering, not only health, but life itself.

HOW TO MAKE INDELIBLE LIPSTICKS

Making lipsticks at home is by no means a difficult task, and in case you might like to try it I give the following details.

It is first necessary to prepare moulds for the sticks. This can be done by wrapping " silver " paper round an object of suitable size and shape, for instance, a lipstick itself. One end of the mould should be closed up, the " silver " paper being stuck down by means of soap, whilst the other end is left open. Before the object used is removed from the mould, the

two together should be plunged, almost to the top, in silver sand contained in a conveniently shaped box or other vessel.

A suitable mixture of waxes or of fats and waxes is then melted in a small basin heated over boiling water. The colouring matter, which must be very finely powdered, is then added, and thoroughly ground in with a pestle. A little perfume may also be added, for example, coumarin or vanillin, using about $\frac{1}{4}$ per cent., more or less, according to taste. The molten lipstick is then poured into the moulds to set.

Here is a good formula for a lipstick, quoted from *Paint, Powder and Patches*. The colour is proof against kissing, provided this is not indulged in immoderately. This is a desideratum of some importance, since no woman makes her lips a delicious red without desiring *someone* to kiss them :—

INDELIBLE LIPSTICK

White "vaseline"	62
Ceresine	31
Carmine	5
Eosine	2

The lips should always be moistened before using this lipstick, a slight touch of which is sufficient to colour them a bright red.

Other colouring matters, such as carmoisine already mentioned, are also employed in making lipsticks, a fairly large range of shades being thereby obtainable. As in the case of rouge, the choice of shade in lipsticks is important. The golden rule is to choose a shade which looks natural and to use the lipstick sparingly.

EMOLLIENT LIPSTICKS

The modern lipstick designed to colour the lips has very considerably overshadowed the older type which was intended for use simply as an emollient. This type of lipstick, however, is distinctly useful, as cracked lips are very troublesome and unsightly.

The purely emollient lipstick is made very soft. Various ingredients are employed for the purpose. One of the best bases is cocoa-butter, which may be compounded with such materials as liquid paraffin, " vaseline ", ceresine, beeswax, etc. Lanolin and almond oil are also employed.

Here is a suitable formula by a Continental authority (H. Fouquet[1]) for an emollient lipstick, which can be made by a method similar to that already described for a colouring

[1] *La technique moderne et les formules de la Parfumerie* (Paris et Liége, 1929), p. 395.

lipstick. The stick may be perfumed in the same way as the former one, and tinted rose, if desired, to make it look pretty, by an addition of a trace of alkannin.

EMOLLIENT LIPSTICK

Cocoa-butter	50
White " vaseline "	45
Ceresine	5

CHAPTER XII

SOME USEFUL TOILET WATERS AND LOTIONS

THE old alchemists, who were the first to attempt to obtain the odorous principles of plants in a suitable form for toilet use by means of distillation, were in the habit of using the term " water " to designate anything of a fluid character. This employment of the term still persists to a certain extent to-day. Thus we speak of lavender water, honey water, eau de Cologne or Cologne water, etc., and I expect that some women are puzzled to know why these " waters " are so much more expensive than rose-water or orange-flower-water.

As explained in an earlier chapter, the latter preparations are " waters " in the strict sense of the word, since they consist merely of water which has been distilled over rose petals or orange flowers, as the case may be, a little of the floral perfume dissolving in the water and making it odorous. These waters, owing to their cheapness and exquisite fragrance, are

very useful for toilet purposes. As you have seen, they figure very largely in the formulæ for various toilet creams, etc., and they may usefully be added, for the sake of their fragrance, to the bath or to water used for washing the hands and face.

LAVENDER WATER AND EAU DE COLOGNE

Lavender water and eau de Cologne, on the other hand, are solutions of certain essential oils in dilute spirit. They do not differ radically, therefore, from handkerchief perfumes in general ; though they are usefully distinguished from these by the lightness and transient quality of their fragrance. Either constitutes an excellent addition to the bath ; but the exorbitant duty to which spirit is unfortunately subject in this country renders both these excellent toilet waters very dear, so that they are little used in England for this purpose to-day. In France, and other countries where a more enlightened policy concerning the taxation of alcohol prevails, excellent lavender water and eau de Cologne can be bought very cheaply, and the latter is much employed for toilet purposes.

The chief odorous constituent used for making lavender water is, of course, the

essential oil obtained from lavender itself, English-grown lavender yielding an oil of far finer aroma than that obtainable on the Continent. For the development of the full fragrance, bergamot oil and other essential oils have to be added to this, as well as some material to " fix " the odour, such as the oleo-resin extracted from orris root, ambre (an artificial product resembling ambergris in odour), or, in the very dearest brands, real ambergris itself.

With reference to eau de Cologne, this is made in so many different types to-day that it is difficult to give a description in general terms of its usual constituents ; but in eaux de Cologne of the old-fashioned type there are bergamot oil, lemon oil, or some other essential oil obtained from a *Citrus* fruit, and oil of neroli (an essential oil distilled from bitter orange blossoms), to which a very little lavender oil, or perhaps a trace of rosemary oil, is added. The mixture of weak spirit and essential oils (excluding the oil of neroli) is always distilled in the course of making the best type of eau de Cologne.

Cheap eaux de Cologne are met with to-day in which the bulk of the essential oils is replaced by synthetic products, the expensive oil of neroli being entirely omitted. Moreover, isopropyl alcohol is used in place of the spirit of

wine, which is really an essential constituent of this perfume. These cheap eaux de Cologne are very unsatisfactory and should be absolutely avoided by women of good taste.

Further details concerning lavender water and eau de Cologne, with recipes, will be found in my little book, *Scent and All About It*.

ASTRINGENT LOTIONS: WITCH-HAZEL

In addition to those toilet waters whose chief value resides in their perfume, there are a large number of fluid preparations which contain various medicaments whose action is desired on the skin. These may be distinguished as "lotions"; and, first of all, we may consider those lotions which contain a mild astringent.

Astringent lotions are employed to tone up the skin. Their action is to cause the pores to close. Hence, used in the morning after the face has been bathed, they are useful before the application of the vanishing cream and powder. Men, it may be mentioned, often like to apply a mild astringent lotion to their faces after shaving, owing to the soothing effect produced. Needless to say, if it is found that a particular astringent lotion irritates the skin in the slightest, instead of soothing it, its use should be completely discontinued.

The distilled extract of witch-hazel forms a very useful material for the preparation of astringent lotions for toilet purposes. A mixture of equal parts of this extract, rose-water and distilled water may be employed; or the following formula, based on one devised by the eminent French authority René Cerbelaud, may be used :—

COOLING ASTRINGENT LOTION

Solution A

Eosine, chemically pure	1
Water, distilled	to 100

Solution B

Menthol	1
Ionone, 100 per cent.	1
Alcohol (spirits of wine)	to 100

The Lotion

Solution A	0·1
Solution B	2·5
Distilled extract of witch-hazel	to 100·0

First prepare the solutions A and B separately by dissolving the substances mentioned in water in the one case and in spirits of wine in the other. Then mix the stipulated quantities of these with the distilled extract of witch-hazel. The reason for making the two preliminary

solutions is that only minute quantities of the three substances mentioned are required. As already mentioned, eosine is a red colouring matter. Its dilute solutions are pink and show a pretty green fluorescence. Ionone is a synthetic product with an odour like that of violets. Menthol is obtained from the essential oil of peppermint and is also made synthetically. It has a cooling action on the skin, producing a sensation of numbness if used in large amounts.

This lotion will be much appreciated by men readers of this book (should there be any) for use after shaving. I recommend every married woman whose husband shaves himself to make a bottle of it or get this made up by a chemist, and present it to him. It will convince him, should he have any doubt, that some cosmetics, at least, are serviceable.

ASTRINGENT LOTIONS: ALUM

Alum, as is well known, is a powerful astringent, and astringent lotions may be made with its aid, though the substance needs using with caution, as its astringency is very considerable.

The following is a formula for a mild alum astringent lotion. If a stronger preparation is required, the alum may be increased up to about three times the amount stated:—

ALUM ASTRINGENT LOTION

Alum, purified, B.P. . . .	0·5
Glycerol	2·5
Rose-water, undiluted . .	to 100·0

This lotion is simply made by mixing the ingredients together. The product looks prettier if it is tinted with a minute trace of the synthetic dyestuff carmoisine, which is now obtainable in a degree of purity suitable for colouring foodstuffs.

SUNBURN LOTION

Prepared calamine is another useful material for the preparation of astringent lotions, especially lotions to ward off and to heal sunburn. This material consists of zinc carbonate or a mixture of this with zinc oxide, tinted a nice pink, several different shades being obtainable. It is very necessary to employ only prepared calamine of the best quality, prepared from zinc compounds conforming with the standards of purity laid down by *The British Pharmacopœia*, and coloured with Armenian bole or a mixture of this and ochre, both of which are, as already mentioned, innocuous earth pigments, owing their colours to the presence in them of iron. Various impurities, some of a very deleterious character, are liable to be found in inferior brands of prepared calamine; and some of

these brands are tinted by means of coal-tar dyes. The latter *may* be those of an innocuous character, but when prepared calamine containing them is used to make a sunburn lotion the colour is washed out and a very unsightly product results.

Here is the excellent formula for sunburn lotion taken from the *British Pharmaceutical Codex*, 1923 :—

LOTIO CALAMINÆ, B.P.C.

Prepared calamine	10
Zinc oxide, B.P.	5
Glycerol	5
Rose-water, diluted . .	to 100

It is best prepared by rubbing down the mixture of calamine and zinc oxide with the glycerol in a mortar, and then adding the diluted rose-water.

The bottle containing it should be well shaken before use, and the lotion dabbed on the affected part. Owing to the flesh-coloured tint of the calamine, it is quite invisible when applied to the skin, and will be found most soothing and beneficial in its effects.

LAIT VIRGINAL

When tincture of benzoin, described in a previous chapter, is poured into water the ingredients insoluble in this liquid are precipi-

tated in the form of a very fine, white powder, which tends in the course of time to sink to the bottom of the vessel. If, however, the proportion of the tincture is not too high, these particles remain more or less permanently suspended, an emulsion being formed by the action of the water-soluble gummy material in the benzoin. The resulting liquid, which looks rather like milk, long ago received the somewhat curious name of " lait virginal " (virgin's milk). It is a very celebrated toilet preparation of an astringent and mildly stimulating character, and is very agreeable to employ.

Many formulæ for the preparation of *lait virginal* have been published, but that of the *British Pharmaceutical Codex*, 1923, has the virtue of simplicity and the advantage of being not too strong. Here it is :—

LOTIO BENZOINI, B.P.C.

Simple tincture of benzoin . .	2·5
Rose-water, diluted . .	to 100·0

It is very simply made by slowly adding the tincture of benzoin to the diluted rose-water and shaking.

LA TOILETTE INTIME

There is one important item in the toilet about which it is desirable to speak very

frankly. Fortunately, thought and its expression are now much freer in England than was the case a generation or two ago. We have not, however, entirely emerged from the condition of Puritanism which would have us close our eyes to one of the most important—and, to natural-minded folk, most interesting and attractive—aspects of life. Hence the desirability of using an antiseptic and perfumed wash for keeping the vaginal passage and adjacent parts of the body sweet and clean is not so widely recognised in this country as is the case in France. In France, every bedroom in every good hotel is provided with a bidet, and " eaux pour la toilette intime," as the French gracefully call them, are regarded as being amongst the essential requisites of my lady's toilet table.

Hygiene and æsthetics absolutely demand bathing exteriorly to be carried out at least once a day, or, in case of necessity, more frequently. It would be an excellent thing if the mothers of England would initiate their daughters into this hygienic practice at an early age, so that its performance became a matter of routine habit, with no special mental associations.

Washing exteriorly is specially desirable during the menstrual period, the old idea that

this is dangerous being one of those disgusting old superstitions which are rapidly dying. It is necessary, however, carefully to adjust the temperature of the water to that of the body.

So far as douching is concerned, objection has been taken by Dr. Marie Stopes (and other authorities) to its too frequent adoption, on the grounds that it may destroy certain substances having the character of hormones, whose action is beneficial. Dr. Stopes has done more in this country than anyone to break down the unhealthy silence in matters of sexual hygiene, and her objection must not be lightly overridden. No doubt, douching can be overdone. On the other hand, the opposite extreme must be avoided: we must not commit the fallacy analogous to those pseudo-scientific extremists who tell us that cleaning the teeth is really bad for them. Occasional douching seems desirable in the interests of cleanliness and hygiene.

ANTISEPTIC TOILET WATER

An extremely pleasant, highly antiseptic, perfumed toilet water[1] for use for the purposes under consideration can be made as follows, the formula being, again, a modification of one published by R. Cerbelaud :—

[1] A little lavender water is also useful (see p. 179).

ANTISEPTIC AND PERFUMED TOILET WATER

Formaldehyde solution, B.P. . .	20
Rose-water, undiluted . .	to 100
Patchouli oil	a trace.

Formaldehyde itself is a gas, and is sold in the form of an aqueous solution often described as "40 per cent.", though it is frequently a little weaker than this. The solution is one of the most powerful germicides known to science; but, as it is very irritating, it must be well diluted before use. Only formaldehyde solution conforming to the standard of purity laid down in *The British Pharmacopœia*[1] should be used for making the above lotion, which is prepared by mixing this with undiluted rose-water in the proportions mentioned, and then adding about four drops of oil of patchouli to every quart, the mixture being well shaken to dissolve the oil.

To use the lotion, either for douching or washing exteriorly, one teaspoonful should be added to a quart of warm water.

Apart from its general use as a perfumed, antiseptic wash, this lotion will be found beneficial in cases of leucorrhœa, though when this very common and very unpleasant condition is present, medical advice should always be sought.

[1] This contains from 36 to 38 per cent. of formaldehyde.

CHAPTER XIII

THE CARE OF THE HAIR

THROUGHOUT the ages, the poets who have striven to translate the beauty of woman into words have with one voice proclaimed her hair as the crowning glory of her charm. No one, however, has perhaps described the beauty of the hair more delightfully than the Roman orator, Apuleius, and I cannot forbear therefore, from quoting the panegyric to which the hero of his immortal work *The Golden Ass* gives utterance when ravished by the sight of the glorious tresses of the lovely Fotis.

APULEIUS ON THE BEAUTY OF THE HAIR

" Most women, in order to display their native charms and loveliness, divest themselves of all neck mufflings, throw open their outer garments, and delight to show their naked beauty ; being conscious that they shall please more by the roseate hue of their skin, than by the golden tints of their robes. But, on the other hand, (I shudder to speak of such a thing,

and may there never be an instance of a catastrophe so dreadful,) if you deprive the most surpassingly beautiful woman of her hair, and thus strip her face of its native ornaments; though she were begotten by heaven, conceived by the sea, and nurtured amid the waves; though, I say, she were Venus herself, surrounded by all the choir of the Graces, attended by a whole multitude of Cupids, girt with her cestus redolent of cinnamon, and bedewed with balsams—still, if she were bald, she would not find favour even in the eyes of her own Vulcan.

"How exquisitely charming is hair of a beautiful hue and rich lustre, when it flashes back the rays of the sun, or shines with milder radiance, and varies its lovely aspect with every change of light! now emitting a brightness like that of gold, now shaded off into the softer hue of honey; raven-black at one moment, at the next reflecting the myriad blossom tints of the pigeon's neck; or, when anointed with Arabian drops [probably myrrh or spikenard], parted by the slender tooth of the comb, and gathered up behind the head, it presents itself to the eyes of the lover, and like a mirror reflects his overjoyed features. How beautiful, when its luxuriant mass is accumulated on the crown of the head, or suffered to

flow down the back in profuse curls. Such, in short, is the dignity of the hair, that though a woman should go adorned with jewels of gold, rich garments, precious stones, and every other kind of ornament, still she could not possibly seem well dressed, unless she had duly arranged her hair." [1]

LONG *VERSUS* SHORT

I must confess that I feel that woman has lost something of value from the point of view of beauty and sex appeal by her departure from the once universal long-hair fashion. But if there has been loss, there has also been gain. If we cast our minds back a few years to the days before short hair became the mode, we shall, perhaps, recollect that, whilst some women had gloriously long hair, the tresses of very many, considered in relation to their length, were neither one thing nor the other. So far as the latter women are concerned, the advent of the bob and the shingle has undoubtedly proved a boon.

This, perhaps, is a consideration of secondary importance. What is more important is the greater ease and comfort experienced by busi-

[1] *The Works of Apuleius . . . a new Translation* (London, 1907), pp. 29, 30.

ness and sports girls in these days of short hair. And what is of greatest importance of all—since biological reasons count for most in the long run—is the discovery of the fact that the bobbed or shingled head may still be very lovely in a characteristically feminine way.

I am strongly of the opinion, therefore, that short hair for women has come to stay. Like all fashions, it has tended to run to extremes, as exemplified, for instance, in the perfectly horrible Eton crop; and at the moment of writing the pendulum is swinging in the opposite direction. The tendency to-day is to wear the hair longer than yesterday, and a fashion has been started of wearing a mass of little curls low on the neck. We must not, however, be led into believing that this is a step towards the reintroduction of long hair. It is not. It is simply a fashion in short hair, and one, I think, which will not be long-lived, since it suits relatively few faces.

The continuance of short hair does not mean that hair will always be worn in exactly the same style. Far from it. Short hair will be liable to as many changes of fashion as long hair was of old, and these changes, no doubt, will come and go in cycles. The bob, perhaps, will give place once more to the shingle, and the shingle,

in turn, to the bob, or, perhaps, some quite new style. The one word of advice I would wish to offer on this question is: Pay little attention to fashion's dictates, but a great deal to a consideration of what suits *you* best.

BRUSHING AND COMBING THE HAIR

Whether worn short or long, however, the hair needs considerable attention if it is to retain its pristine beauty. Even the choice of a brush and comb is a matter of importance. A brush which is too soft is useless; but one which damages the hair or tends to drag it out is worse than useless.

So, too, in the case of combs. The choice of a good comb may play a large part in determining the future quality of the hair. Undoubtedly the best material for combs is real tortoise-shell, which is, however, very expensive. Fortunately, vulcanite forms an excellent substitute, provided the comb made of it is of good quality. The spaces between the teeth should be grooved.

Both brush and comb, of course, should be kept scrupulously clean. Neither metal nor horn combs should ever be used. Horn is liable to split. The split may be quite invisible,

but the sharp edges will damage the hair very considerably.

Brushing and combing the hair are important hygienic measures for keeping the hair clean ; and, although they cannot take the place of shampooing, they are essential operations which should never be neglected. Brushing, however, should not be so vigorous as to stretch the hair ; for when hair is stretched it is considerably weakened.

SHAMPOOING

Some folk have an idea that shampooing the hair, unless done at very infrequent intervals, is distinctly bad for it. Nothing could be further from the truth. Let me again emphasise the fact that cleanliness is not only next to godliness, but is the primary essential of scientific beauty culture.

We realise that the body needs a daily bath, and the head is one of the most exposed parts. Moreover, as pointed out in an earlier chapter, associated with every hair are certain glands which secrete a tallow-like substance—sebum—which is Nature's lubricant for hair and skin. Healthy hair, therefore, is always very slightly greasy—abnormal greasiness indicates an un-

healthy condition of the glands—and therefore accumulates dirt very easily. To prescribe a weekly shampoo for every woman who values the beauty of her hair is by no means to overstep the mark.

In shampooing, however, there are certain little details, attention to which is of the greatest importance. The neglect of these details, and consequent damage to the hair, is responsible for the absurd idea that keeping the hair clean is not good for it.

Either a good soap or a good shampoo powder may be used. There are some very good shampoo powders [1] on the market, and there are some very bad ones containing too much alkali. The latter feel harsh to the scalp, and should be assiduously avoided. But whether soap or a powder is employed, it is of the utmost importance to see that it is entirely dissolved in warm water before it is used to cleanse the hair. If soap is employed, a little borax should first be added to the water, and completely dissolved in it before the soap is added, in order to soften it and thus to prevent the formation of a curd.

The second point of great importance con-

[1] A good formula for a chamomile shampoo powder will be found in the next chapter. By leaving out the chamomile, this yields a very good plain shampoo powder.

cerns rinsing. This must be *thorough*, so that not a particle of soap remains in the hair.

DRYING THE HAIR

The third point, and this is of paramount importance, is that the drying must also be *thorough*. Scientific researches have proved that damp hair is far more easily damaged than dry hair. Moreover, shampooing temporarily deprives the hair of the natural grease to which its strength is largely due.

This is where the saloon shampoo possesses a big advantage over the home shampoo, because the up-to-date hairdresser has special apparatus whereby the hair may be most effectually dried. But the short hair vogue has rendered the problem of drying the hair at home much less difficult of satisfactory solution than was the case when long hair was in fashion.

Do not dry your hair in front of a fire. That is a very bad method. Rely rather upon towelling, but avoid rubbing the hair too harshly, since, in its temporarily weak condition, you may otherwise damage it. If the day is warm and sunny, you may well requisition the sun's aid, combing your hair carefully so that the sun's light and heat penetrate to the roots.

Too long exposure to the sun tends to bleach the hair, but moderate exposure is beneficial. As already mentioned, the ultra-violet rays set up a chemical change in the ergosterol contained in the sebum, resulting in the production of vitamin D.

THE DRY SHAMPOO

Dry shampooing is useful, especially if the hair is over-greasy. There are two sorts of dry shampoo preparations—namely, liquids which consist of soap and other cleansing materials dissolved in weak alcohol, usually coloured and perfumed, and powders which are applied dry to the hair overnight and brushed out in the morning. Never, in any circumstances, use the latter. They are most unsatisfactory and are liable to injure the hair.

Spirituous dry shampoos are quite as effective as wet shampooing, provided they are used properly, a task best entrusted to the skilled hairdresser—unfortunately, by no means are all hairdressers really skilled, and one must choose with discrimination. The advantage of these shampoos is that the hair is more easily dried afterwards than in the case of a wet shampoo. Dry shampoos made with spirits other than

alcohol, such as petrol, are very dangerous and are little used to-day ; but the cheaper sorts of dry shampoo lotions are made with very impure alcohol, which may set up skin trouble.

It is advantageous to use a perfumed shampoo, or, if just borax, soap and water are employed, to add a drop or two of lavender oil or other concentrated perfume to the wash. Not only is scented hair very agreeable, but, as pointed out in Chapter I., nearly all perfumes are antiseptics, hence their use helps to keep noxious bacteria at bay.

THE VALUE OF OIL

At one time the use of oily dressings for the hair was far more popular than is the case to-day. Indeed, their use was carried to excess. Men, especially, loved to cover their hair with a particular oily dressing, known as macassar oil, to such an extent that the careful housewife was compelled to protect her upholstery by means of covers, which came, in consequence, to be called " antimacassars ".

As I have already indicated, when hair is healthy, it is always slightly greasy. There can be no doubt, therefore, that oil is good for the hair.

Some years ago, a well-known physician[1] carried out a number of experiments to determine the effect of oil on the hair. He found that when hair was thoroughly defatted—that is, cleansed from its natural grease—its strength was considerably reduced. On the other hand, he discovered that when hair was treated with a suitable oil its strength was markedly increased. This was the case both with castor oil, an oil of vegetable origin, and with liquid paraffin, an oil of mineral origin.

BRILLIANTINE

It is quite obvious, therefore, that the judicious use of brilliantine is distinctly good for the hair. An application of an oily dressing of this character is especially useful immediately after the hair has been shampooed, since the hair is then temporarily in a weak state, the washing having removed the natural grease. But brilliantines are of many different types, and are not all equally useful. One sort of brilliantine, not often met with to-day, is made

[1] Dr. R. W. Leftwich. See his *The Preservation of the Hair* (Third Edition, London, 1910). I recommend you to read this little book, which, amongst other useful matters, contains a simple-worded account of the structure of the hair.

with glycerol. This is bad for the hair, owing to its drying action, and should not be employed.

Some brilliantines consist simply of perfumed oil; others of oil mixed with spirit. The latter, excepting those made with castor oil, are the so-called separable brilliantines. That is to say, the brilliantine separates into two layers on standing, the oil being insoluble in the spirit. They must be well shaken before use. The spirit, provided it is of good quality, is a useful addition, since it exercises a stimulating action. The perfume, as well as being pleasant, is also useful for the reason mentioned above.

The oil most favoured to-day for making brilliantine is liquid paraffin. Although beneficial in its effects, this oil is completely devoid of any nutritive value. It does, however, exercise a strengthening action on the hair of a mechanical and temporary character. A vegetable oil is, perhaps, better. And of vegetable oils, the expressed oil of almonds is far and away the best to use, as it is practically the only vegetable oil which keeps well. Owing to its rather expensive character, however, it is little employed for the purpose.

You can make an excellent separable brilliantine for yourself simply by putting a little eau de Cologne, lavender water, or good bay

rum into a bottle and adding to it about three times as much pure sweet almond oil ; or you can mix the oil with any other scent you may prefer. The two liquids will separate, and the bottle must be well shaken before use. Apply a very little to your hair, brushing it well in.

THE OIL SHAMPOO

An even better manner of applying oil to the hair is that known as the oil shampoo. For this, only a vegetable oil should be used. Almond oil, again, is best, but pure olive oil will serve very well.

First of all the hair should be well brushed. The head is then enveloped for a little while in a towel which has been wrung out in hot water to render the scalp more receptive. Meantime, the oil should be warmed to a pleasant heat. A little is sprinkled on the head and thoroughly massaged in with the tips of the fingers. Sufficient oil should be used to render the hair distinctly greasy, and if it can be allowed to remain in this condition for some hours so much the better. Afterwards, the excess oil is removed by shampooing the hair in the ordinary way with warm water and soap or warm water and a good shampoo lotion or shampoo powder.

A thorough treatment of the hair with oil in

this manner once every month or two will, in most cases, be found extremely beneficial. The hair gains considerably in strength and lustre as a result. The oil shampoo can be confidently recommended in those cases where the hair has that lifeless appearance which is so detrimental to its beauty.

The one and only objection that might be brought against oil is that its use tends to make waving difficult—a difficulty, however, which can usually be overcome by using the oil shampoo followed by an ordinary shampoo as described above.

MARCEL WAVING

The short hair fashion for women has brought about a complete revolution in the art of hair-dressing. There are many styles of dressing short hair so as to create a charming effect, but it is true to say of the majority that they all require the hair to be waved.

It is not my intention to discuss the merits or demerits of the various styles, save to observe that what suits one face may be by no means pleasing with another. I want, however, to say something of practical value on the very vital question: Is waving injurious to the hair? And, of course, this question resolves itself into

two, since what is true of Marcel waving may be by no means true of permanent waving, and *vice versâ*.

May I go back for a moment to those days when curls and frizzed hair were the fashion, and curling tongs were to be found on most women's dressing-tables? Much discussion then took place on the question of whether curling the hair with tongs was harmful, many people, indeed, tending to the view that the heat must be highly injurious to the hair.

Actually, the question was answered in the negative by the researches of Dr. Leftwich, to whose valuable little book I made reference a few pages back. He found that curling the hair with tongs certainly decreased its strength somewhat, but to so slight a degree as to be in no wise alarming. "It must," he writes, "be confessed that the tongs are not so bad as they have been painted."

Now, what was true of curling the hair in those days is true of Marcel waving to-day. No woman need fear in the least to have her hair waved regularly by the Marcel process. Indeed, Marcel waving is much to be preferred to the old-fashioned curling, since the former only requires to be done once or twice a fortnight, or even less frequently, whereas in the old

days hair was curled every day, and sometimes even more frequently.

PERMANENT WAVING

When we come to permanent waving the case is somewhat different. The permanent-waving process subjects the hair to the action of an intense degree of damp heat for a comparatively long time. Moreover, in the permanent-waving process, the hair is usually treated with chemicals of a strongly alkaline character, which tend to weaken it considerably. It would seem almost to require a miracle for the hair to survive the process without suffering some damage. We must, however, keep a sense of proportion. A slight damage to the hair in the sense of weakening it, provided the roots are in no way injured, is, in these days of short hair, far less serious than in those days when fashion decreed that woman's hair must be long, for the simple reason that to-day hair is not expected to last indefinitely. In the course of time, a new growth of hair pushes the old hair up from below, and the latter is cut off.

There are many different types of permanent-waving machines in use at present, necessitating

somewhat different treatments of the hair, some of which are to be preferred to others. Much, too, depends on the skill of the operator. An unskilful attempt to permanently-wave the hair may result in the scalp being badly burned—an accident of a very serious character, since it may mean permanent loss of hair. On the other hand, whilst no method of permanent waving can be pronounced as being really good for the hair, provided the operation is skilfully performed by the aid of a good machine, the harm done to it may be of a negligible character, quite outweighed by the advantages.

SETTING LOTIONS

When hair has been permanently waved, it has to be set periodically, for which purpose special "setting lotions" are used. Some women have discovered that, with practice, they are quite capable of satisfactorily setting their hair themselves. Much mystery, however, has been made about the composition of the setting lotions. Actually they are weak solutions of either borax or of various gummy or resinous substances in diluted spirit suitably perfumed.

The following formula will be found to produce a very good setting lotion :—

SETTING LOTION

Gum tragacanth, finest, in powder .	0·1
Isopropyl alcohol	10·0
Terpineol	0·25
Water	to 100·0

To make the lotion, proceed as follows: Thoroughly mix the tragacanth with a very little (0·2 part) isopropyl alcohol in a capacious bottle, which must be quite dry. Add 8 parts of water all at once, and shake violently. Dilute with water to about 85 parts. Dissolve the terpineol in the remainder of the isopropyl alcohol, and add gradually to the mucilage of tragacanth. Finally, make up to 100 parts with more water. The lotion is nicer if rose-water is used for making it in place of plain water. Shake the bottle well before use.

CHAPTER XIV

SOME PREPARATIONS FOR THE HAIR

APULEIUS, whom I quoted in the last chapter, was certainly right in regarding the loss of her hair as being, from the æsthetic standpoint, one of the most terrible calamities a woman can suffer. Every woman regards signs of falling hair with apprehension ; and with hardly less fear does she contemplate her hair turning grey. As a matter of fact, the latter is not always calamitous. There is a beauty of a very mature type to which hair of a snowy white colour or a uniform grey is not unfitting.

CANITIES AND ALOPECIA

Whether or not we are to regard canities, as whitening or greying of the hair is called, and alopecia, or loss of hair, as inevitable concomitants of old age—and personally, I am doubtful whether either should be so considered—it is undoubtedly true that when either of these conditions makes its appearance in early life

its advent must be regarded as due to pathological causes. These may be of a most diverse character. The trouble may be a diseased or unhealthy condition of the scalp, or it may be of a more deep-seated nature. Certain of the endocrine glands undoubtedly play a large part in determining the growth of the hair. Loss of hair may be due to some disturbance of these glands ; but this disturbance, in its turn, may be the result of various other causes.

Whenever loss or fading of hair in early life occurs, a thorough overhauling by a competent medical man is always to be recommended. Only by this means is there hope of discovering the real seat of the trouble, and only when this has been discovered is there hope of mending it. As a matter of fact, when the hair has actually lost the natural pigments to which its colour is due it seems, generally speaking, impossible to restore them [1] ; and in many cases of alopecia, also, medical science knows no certain means of effecting a cure.

QUACKERY

The ground, therefore, has proved a remunerative one for quacks, who are quite content to

[1] The whole question is very fully considered in Part IV. of *Blonde or Brunette ?*

make money at the expense of folk in whose hearts they raise hopes which their nostrums are quite incapable of fulfilling.

Again and again, advertisements are blazoned forth in the Press announcing the discovery of some new specific which will cause hair to grow on bald pates, or, it may be, will restore the natural colour to faded hair without dyeing it.

Unfortunately, such specifics are quite unknown to modern science; and I caution you against paying any attention to such utterances of quacks as these.

To consider the hair-growers first. No external application of any medicament whatever can be relied upon to cure alopecia. The root trouble must be dealt with. At the same time, the application of stimulating lotions to the hair, especially if combined with massage, constitutes a useful hygienic measure for guarding against loss. Analyses of certain popular hair tonics made by the British Medical Association some few years ago, however, revealed that in every case they consisted of over 90 per cent. of water, and contained only traces of medicaments of a stimulating character.[1]

[1] See *More Secret Remedies* (London, 1912), pp. 222–225.

BAY RUM

Amongst mildly stimulating materials which are to be found in hair tonics worthy of the name, mention should be made of alcohol and various essential oils, of which bay oil, distilled from the leaves of the West Indian bay, and rosemary oil are especially esteemed. Genuine bay rum, which consists of bay oil, usually with the addition of other odorous materials, dissolved in dilute spirit or (in the case of cheaper brands) in diluted isopropyl alcohol, constitutes a simple hair tonic of this type. Not only does its refreshing odour make it very agreeable to employ, but the habitual use of good bay rum constitutes a useful hygienic measure, as, in addition to its mildly stimulating action, the preparation possesses good antiseptic properties. Some of the cheaper bay rums, however, contain neither spirit nor any ingredient derived from the West Indian bay. These are quite worthless.

Here is a simple formula for a bay rum of pleasant and distinctive odour, antiseptic and stimulating in its action, which nevertheless is cheap. It is improved if the isopropyl alcohol is replaced by 60 parts of spirits of wine ; but this adds to the cost very considerably :—

Bay Rum

Bay oil	0·15
Massoia bark oil or Pimento oil	0·05
Ethyl acetate	0·05
Isopropyl alcohol	45·00
Distilled water	to 100·00

To make this bay rum, all that is necessary is to dissolve the oils and ethyl acetate (which gives the preparation a slightly fruity odour) in the isopropyl alcohol, and then to dilute with distilled water. It may be tinted golden brown, if desired, with a trace of caramel (burnt sugar).

THE IMPORTANCE OF MASSAGE

Massage is a most important factor in stimulating the growth of the hair. Massage causes an increased flow of blood to the surface of the skin, and hence to the hair follicles, whereby the hair is nourished. Therefore, a very good method of stimulating the growth of the hair is to employ the oil shampoo described in the last chapter. Where there are definitely bald patches, these may be massaged with a lanolin cream. Let me repeat that the massaging is most important, but that reliance should be placed on no external treatment by itself as a means for combating loss of hair. Oil or grease without friction is quite useless.

JABORANDI AND CANTHARIDES

In addition to alcohol and essential oils, there are certain other materials which are believed to exercise a stimulating action on the growth of the hair and are used in making hair tonics. One of these, not now held in very high repute, is jaborandi, which consists of the dried leaflets of a Brazilian shrub and contains the very poisonous alkaloid pilocarpine. Another is cantharides, or cantharidin. Cantharides consists of the dried bodies of a peculiar species of beetle, the so-called "Spanish fly", which is found in the south of Europe, whilst cantharidin is the active principle extracted from this. Cantharides has an extraordinarily irritating action on the skin, producing blisters if used in other than a very diluted form. Hair tonics based on cantharides or cantharidin certainly do seem in many cases to have a stimulating action which tends to promote the growth of the hair ; but owing to the dangerous character of their active ingredient they need to be used with great care.[1] Both cantharides and cantharidin are scheduled poisons.

[1] Some brands, no doubt, contain so little of the active ingredients as to be quite safe to employ ; but these are, for the same reason, ineffective.

Another substance often used in making hair tonics and which is held in high favour by many folk, especially men, is quinine. Everyone knows how valuable a drug this is in certain conditions when taken internally, but it is doubtful if it really has any action, other than that of an antiseptic, when applied to the hair in the form of a lotion. As, however, quinine hair tonics usually contain other stimulating materials, such as alcohol and essential oils, we must not condemn them as entirely worthless as hygienic applications.

CAPSICUM HAIR TONIC

Capsicum, or red pepper, offers itself as a harmless and effective substitute for cantharides; and of all hair tonics, those based on capsicum are perhaps safest and best. Here is a simple formula for a capsicum hair tonic which any chemist will make up for you, or which you can make for yourself :—

Capsicum Hair Tonic

Tincture of capsicum, B.P. . .	1·5
Rosemary oil	0·2
Isopropyl alcohol	45·0
Distilled water . . .	to 100·0

Dissolve the tincture of capsicum and rosemary oil in the isopropyl alcohol and dilute to the requisite volume with water.

HAIR RESTORERS

Turning our attention now to the preparations which are claimed to restore faded hair to its natural colour, it can safely be asserted that all of these, save such as are completely ineffective, are dyes. The majority are dyes based on lead. These are dangerous to use. In some countries, where legislation concerning these matters is more stringent than in our own, their sale is prohibited.

A perfectly innocuous "hair restorer", however, may be made by dissolving 1 part of chemically pure crystallised ferrous (iron) sulphate in 50 parts of claret, preferably with the addition of about 4 parts of glycerol and a trace of rosemary oil to perfume it. This, too, correctly speaking, is a dye, but one of a more "natural" character than the usual type of "hair restorer". It is not very effective; but it may be usefully employed after shampooing as a hygienic lotion to counteract slight greyness by ladies with dark hair. It should not be used by blondes.

HAIR DYES

In these days of enlightenment it ought not to be necessary to point out that there is nothing shameful whatever in a woman dyeing her hair, if thereby her appearance can be improved, though an unreasoning prejudice against dyed hair still persists. From the æsthetic point of view, of course, everything depends on the manner in which the dyeing is effected. If the hair is obviously dyed, then it is badly dyed. The object of dyeing must always be to simulate Nature as perfectly as possible, and success in this task can never be expected if too great a change in the colour of the hair is attempted. The real objection to dyeing the hair resides in the fact that the vast majority of dyes which are artistically effective are dangerous to employ, though here much depends upon the knowledge and skill of the operator. Henna is reputed to be perfectly innocuous in every way. Pure henna is. But most so-called henna dyes contain poisonous ingredients in addition to the henna, which by itself is capable of dyeing the hair one colour only, auburn.

The subject of hair dyes is a highly technical one with which I cannot deal here. I would refer you to my book, *Blonde or Brunette?*

written in collaboration with Mr. G. A. Foan (a well-known hairdresser), where the whole science and art of hair dyeing is completely surveyed, cautionary advice being given for using dyes which, whilst certainly dangerous, may be successfully employed when the necessary precautions are rigidly observed.

My advice on the question of " To dye or not to dye " is : Never have recourse to hair dyeing unless this becomes quite necessary. Should it become necessary in the interests of beauty, do not attempt to dye your own hair ; but after studying the subject in the book already mentioned, entrust the task to a professional hairdresser, making quite certain that he or she is perfectly competent in this difficult branch of beauty culture.

BLEACHING THE HAIR

To a certain extent, what I have said concerning dyeing the hair applies also to bleaching the hair. To-day, this is usually effected by means of hydrogen peroxide activated by means of a little ammonia. If properly carried out, bleaching by this method is perfectly harmless both to health and to the hair itself. But if carelessly done, and especially if too much ammonia is employed, the hair may be seriously damaged.

Hair which has been violently bleached never looks charming. It is instantly recognised as "peroxide blonde", and the phrase, indeed, has rightly become one of reproach. On the other hand, some very pleasing chestnut shades can be obtained by the careful and moderate bleaching of dark hair. Here, again, everything depends upon the knowledge and skill of the operator. Bleaching is not an operation to be attempted at home. It is a job for the thoroughly skilled professional hairdresser.

As a useful measure to counteract the darkening effect which age so often seems to have on blonde hair, whereby its pristine beauty is lost, the addition of a very little hydrogen peroxide to the water with which the hair is rinsed after shampooing may be recommended. Used in this manner, of course, the effect of the hydrogen peroxide is very slight; and a very slight action is all that is needed.

CHAMOMILE AND HENNA AS COLOUR TONICS

There are certain natural hair dyes which lend themselves to home use for effecting very mild changes in the colour of the hair, changes so slight that it seems hardly correct to describe the materials as hair dyes when employed in

this manner. They may more accurately be denominated " colour tonics ", their effect being to tone up the existing colour of the hair. The most important materials of this type are chamomile and henna, the first being suited to the needs of blondes and the latter to those of brunettes.

Chamomile (*Anthemis nobilis*) is a herb which grows wild in some places in England and is cultivated for medicinal purposes chiefly in Belgium. Its dried flower heads are used.[1] Henna is a shrub (*Lawsonia alba*) which is widely cultivated in Eastern lands, its flowers being used for purposes of personal adornment and its leaves and young twigs for dyeing the hair and staining the nails, the palms of the hands and the soles of the feet red.

Chamomile owes its tinctorial powers to the presence in it of a weak yellow dye, called " apigenin " ; whilst henna owes its peculiar powers of dyeing the keratin of the skin and hair red to a substance which has been isolated from it and called " lawsone ".

For hair-dyeing purposes, powdered chamo-

[1] German chamomile (*Matricaria Chamomilla*) somewhat resembles *Anthemis nobilis* and its flower heads are sometimes employed for the same purpose. The plant is a native of Great Britain.

mile florets and powdered henna leaves and twigs are employed in the form of packs, usually with other colouring materials added. These packs have to be left in contact with the head for fairly lengthy periods in order to effect any pronounced alteration in the colour of the hair, a special technique being required, which is described in the book I have already mentioned.

Here, however, we are concerned with the use of chamomile and henna not as dyes, but as colour tonics.

For this purpose, an infusion of either may be prepared in much the same way as strong tea is made, and used for washing the hair after it has been shampooed and before the final rinsing. Alternatively, one or other of the materials may be incorporated with the shampoo powder or lotion itself.

CHAMOMILE AND HENNA SHAMPOOS

There are some excellent chamomile and henna shampoo powders and lotions on the market, though all are not so good as others. The following formula produces a very nice product, whose action on the hair is free from harshness :—

Chamomile Shampoo Powder

Chamomile, powdered	5
Castile soap, powdered	40
Sodium sesqui-carbonate	44
Borax, purified and powdered	10
Perfume to taste	1

This forms an excellent shampoo for use by blondes, whereby the beautiful golden colour of fair hair may be preserved. It is best not to attempt to make the preparation oneself, but to have it compounded by a chemist, as it is very necessary for the ingredients to be very finely powdered and sifted, an operation difficult for the amateur to perform.

A similar shampoo may be advantageously used by ladies with dark brown hair, in which the chamomile is replaced by pure powdered henna. By this means a slight and very attractive suggestion of red will be given to the hair. For still darker tints, the proportion of henna may be doubled.

CHAPTER XV

THE PROBLEM OF SUPERFLUOUS HAIR

THE use of depilatories, or preparations to remove hair from the face and other parts of the body, is very old. In the East, barbarous religious custom compels women to remove every particle of visible hair from their bodies, the hair of the head excepted. This custom, perhaps, may have had its origin in rudimentary notions of hygiene, since it is, of course, easier to keep the body clean when it is entirely free from hair. From this point of view, however, it seems illogical not to depilate the scalp as well. As a matter of fact, many men in Germany, and (contrary to the popular conception of a Bolshevik) also in Russia, shave their heads or wear the hair cut absolutely close to the scalp, for hygienic reasons, the effect being hideous in the extreme. Considered as a hygienic device, more or less complete depilation is, however, very crude. It is quite opposed to true æsthetics and is in no way to

be commended. There would, for example, be no more dirty nails if everyone had their nails drawn, or, alternatively, had the ends of their fingers and toes amputated ; nor would there be any more decayed teeth if everyone wore a complete set of artificial dentures. Nevertheless, no one in their senses would advocate the adoption of such measures, though they are quite analogous, considered as hygienic devices, to shaven heads and depilated bodies.

COMPOSITION OF DEPILATORY CREAMS

In the East, the most commonly employed depilatory, known as "rhusma", consists of a mixture of quicklime and orpiment, which is made into a paste with water before use. It is effective as a temporary measure, but exceedingly dangerous to employ. Orpiment is a sulphide of arsenic, and is, of course, very poisonous.

Rhusma is rarely employed in Western Europe. In place of orpiment, depilatories are made from other sulphides, such as those of barium, strontium and sodium. For example, sodium sulphide can be made into a paste, with the addition of slaked lime, kaolin and a little sugar, and used as a depilatory. Of such preparations, those containing barium sulphide

are the most effective ; but all are dangerous and objectionable to use, barium sulphide, in particular, being very poisonous.

Another type of more modern depilatory is based on the properties of compounds of the metal thallium, a rare metal somewhat similar to lead. A depilatory of this type can be made by incorporating 1 per cent. of thallium acetate with a lanolin-vaseline cream.

DANGERS OF DEPILATORY CREAMS

The sulphides used in depilatory creams attack the keratin of the hair, reducing the hair to a soft jelly which can easily be scraped off. It is obvious that they must also attack the keratin of the skin, with detrimental results. Dr. W. J. O'Donovan has uttered a very necessary warning against the use of these dangerous preparations in his work *The Hair : its Care, Diseases and Treatment* (London, 1930). " They act ", he writes, " by yielding a chemical shave which needs frequent repetition ; this sets up in time eczema of the face or armpits, occasionally complicated by the development of axillary boils and abscesses ". Depilatories of the sulphide type betray their dangerous character by the odour of rotten eggs which they exhale, for a bad odour is one of

Nature's red signals. No perfume is really effectual in masking this odour. Moreover, as Dr. O'Donovan indicates, their depilatory effects are only temporary.

Thallium depilatories, on the other hand, are free from any objectionable odour, and they do not, like the sulphide depilatories, irritate the skin. They are absorbed and act on the nervous system, the effect of the thallium being to produce alopecia or baldness. This alopecia may not be confined to the place of application, but may spread to other parts of the body, including the scalp. Moreover, recent researches have shown that thallium, which is a dangerous poison, has a disturbing action on certain of the endocrine glands, especially those of reproduction. Thallium depilatories, therefore, are perhaps even more objectionable than the older type of preparation.

MECHANICAL METHODS OF DEPILATION

Plucking, shaving, and removing hair by friction constitute mechanical means of depilation.

Plucking suffers under the disadvantage that it causes considerable pain and is apt seriously to irritate the skin. Shaving is harmless ; but it is ineffective, even as a temporary measure.

It is commonly believed, perhaps correctly, to coarsen the hair. Once shaving is started, it has to be repeated again and again at frequent intervals. Moreover, shaving only removes the hair at the surface of the skin. Unless the hair is very fair, the cut tops of the hairs plainly show. English brunettes who shave their armpits always exhibit a dirty coloured patch, which looks very disgusting.

Rubbing the skin with material of the character of pumice stone is a method of depilation of limited utility. It is, of course, quite temporary in its effects. Sometimes the forearms and legs of brunettes are disfigured by a growth of abnormally long hairs. A specially prepared stone resembling pumice stone which is now on the market would seem to be of some use in these cases.

OTHER METHODS: X-RAYS, ELECTROLYSIS, DIATHERMY AND THYROID TREATMENT

Other methods of depilation include the use of X-rays, electrolysis, diathermy and thyroid treatment. So far as the first is concerned, it is possible that, with further research, a completely satisfactory method based on the properties of X-rays will be devised. The time, however, has not yet arrived, and, at the

moment, the use of X-rays to destroy superfluous hair is attended with grave dangers.

Electrolysis offers itself as a far more reliable method of depilation. In this process, the root of each hair is destroyed by passing an electric current through it, introduced by means of a fine needle. As can readily be understood, however, the technique of electrolysis is exceedingly difficult, requiring a steady hand and a delicate touch far above the average. If improperly carried out, the process may not only fail to destroy the unwanted hairs, but result in disfiguring scars.

The use of the diathermic needle is tending, nowadays, to replace electrolysis, and is claimed to give more satisfactory results. In this method of depilation, the destructive agent employed is electrically-produced heat. Both electrolysis and diathermy, however, would seem to strike only at the effect, and not at the real cause, of hair which is really superfluous. This cause would seem, like that of premature loss of hair, to be due to defective functioning of certain of the endocrine glands, especially the ovarian and thyroid glands. In certain cases, very satisfactory results have been obtained by giving the afflicted person a course of thyroid extract. I hesitate to write too

definitely about this new method of treatment, which at the present is only in an experimental stage. But it does seem to hold out the possibility of effecting a really radical cure of a most distressing trouble when this is due to defective functioning of the thyroid gland. In any case, however, thyroid extract should never be taken except under the supervision of a thoroughly competent medical man.

WHAT IS SUPERFLUOUS HAIR?

Having considered the various methods of depilation, I wish very frankly to discuss the question: What is superfluous hair?

"Superfluous" means "more than enough, useless, unnecessary", and the word should only be applied to a growth of hair of an abnormal or pathological character. Cases have occurred of persons developing a thick hairy growth over the whole of their bodies, so as to resemble apes rather than human beings. Such catastrophes are fortunately rare; but many women do tend to develop a marked hairy growth on their upper lips and chins, which must be considered abnormal and pathological in origin. It is normal for every woman to have a slight growth of downy hair in these places, and, indeed, over nearly the whole of

the body, but the normal hair of the lips and chin is practically invisible.

A marked growth of hair on lip or chin is one of the greatest blemishes to beauty with which a woman can be afflicted, owing to its essentially masculine character. It is much to be regretted that no simple and inexpensive remedy presents itself. I would strongly advise ladies afflicted with this trouble to consult their medical advisers as to the desirability of taking thyroid treatment, or, failing this, to have resort to electrolysis or diathermy at the hands of an expert. Depilatories, shaving and plucking should all be assiduously avoided.

Where circumstances prevent more radical treatment, the hair may be bleached in order to render it less conspicuous. For this purpose a mixture of 1 part of 0·880 ammonia and 30 parts of 20 vol. hydrogen peroxide may be used. This is most conveniently employed in the form of a paste made by mixing the above ingredients with kaolin, which is applied to the hair and left on for about ten minutes, the process being repeated from time to time. When, however, the hair to be treated is on a tender part of the skin, it is advisable to dilute the mixture of peroxide and ammonia with an equal bulk of water before making the paste, in which case

two or three applications may be needed to produce a marked effect.

FALSE NOTIONS OF BEAUTY

The cult of the sleeveless dress in our own country, a cult much to be commended on hygienic and artistic grounds, has been the occasion for the dissemination of the idea that the normal growth of hair in the armpits is superfluous, and that no girl ought to appear in such a costume without first removing it.

The idea, perhaps, has its roots in our Puritanism, which, recognising the sexual significance of this hair, fails to appreciate that, being an aphrodisiac, it is to be reckoned as a beauty asset. This has been played upon by manufacturers of safety razors and depilatory creams to such an extent that a considerable number of the young women of this country are busily engaged in a process which is not only disfiguring, but is likely to prove detrimental to health.

There is not the slightest doubt that Nature, in causing hair to grow in the armpits, intended this hair to form an adornment to the body like the hair of the head. A true conception of beauty regards it as such. On the Continent, the manufacturers of safety razors and depilatory

creams have found a less fertile soil for their misleading propaganda than in our own land. No one who has travelled abroad can have failed to realise that the delicate little curls which ladies of fashion in, for example, Vienna, allow the world to see when they appear in evening dress, add considerably to their charm and fascination.

EXCESSIVE PERSPIRATION

The axillary hair, or hair of the armpits, therefore, should be regarded as a beauty asset, and treated as such. It demands attention, just as does the hair of the head. Excessive perspiration under the arms is a source of great embarrassment to many women, and, in some cases, no doubt, has acted as a contributory reason for the sacrifice of the axillary hair. Nothing, indeed, looks more unsightly than hair which is not perfectly fresh and dry.

Perspiring, as I pointed out in an earlier chapter, is a natural and essential function of the skin. We can stop it only at the peril of our lives. There are cases and occasions, however, when it may be desirable to check perspiration which is excessive. In such cases, an alum or other astringent lotion may be employed.

Diluted alcohol (weak eau de Cologne or eau de Cologne and water) is also useful.

It is still more distressing when the perspiration is of unpleasant odour. Attempts to counteract this by means of powerful perfumes are never successful. It is better to deal with the root of the trouble. Sometimes constitutional causes are responsible and medical advice needs to be obtained.[1] The following lotion, however, will be found useful to destroy the bacteria responsible for the decomposition of perspiration and the bad odour which is the result of this :—

DEODORANT LOTION

Formaldehyde solution, B.P. . .	1·0
Simple tincture of benzoin . .	2·5
Patchouli oil	0·025
Rose-water, undiluted . .	to 100·0

Dissolve the patchouli oil in the tincture of benzoin, and pour slowly into the rose-water, previously mixed with the solution of formaldehyde, stirring all the while.

This lotion will also be found useful for

[1] It is said that, in certain cases, two or three applications of X-rays carefully given will cure bromidrosis, as this trouble is called, but such treatment should never be adopted except under the direction of a fully qualified medical man.

application to the feet when the need for a perfumed antiseptic preparation is indicated.

Lavender water is also good, and, in addition to special uses, a little may, with advantage, be added to the bath or to water used for washing any part of the body. Not only is its odour very refreshing, but lavender possesses antiseptic properties, and our grandparents who kept dried lavender in their clothes chests were by no means foolish. It is true that the fragrance of lavender water is rather fleeting ; but, as Dr. van de Velde has pointed out, the perfume of lavender is particularly serviceable for neutralising slight, unpleasant body odours.[1]

CONCLUSION

I would end this little book on the note on which it was begun. Most women—perhaps, in their heart of hearts, all women—are devotees of the Cult of Beauty. It is a cult worthy of all praise, for in Beauty we have something which is a value in itself, inestimable in terms of anything else. In their quest for beauty, I trust that what I have written may prove of real service. I salute Eve and offer her this book.

[1] See the section on "Perfumes and the Sexual Impulse" in his valuable book *Ideal Marriage* (London, 1928).

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