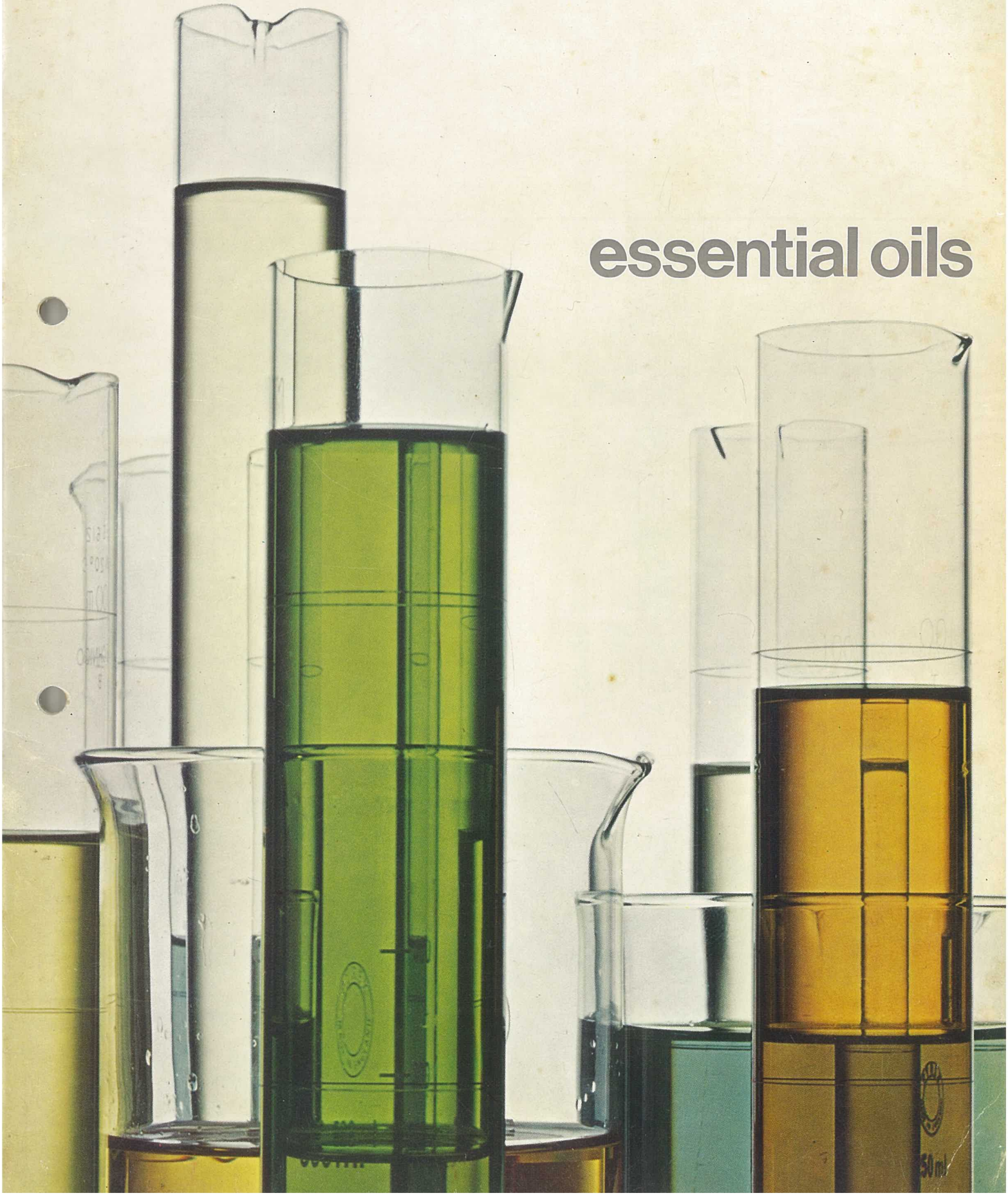
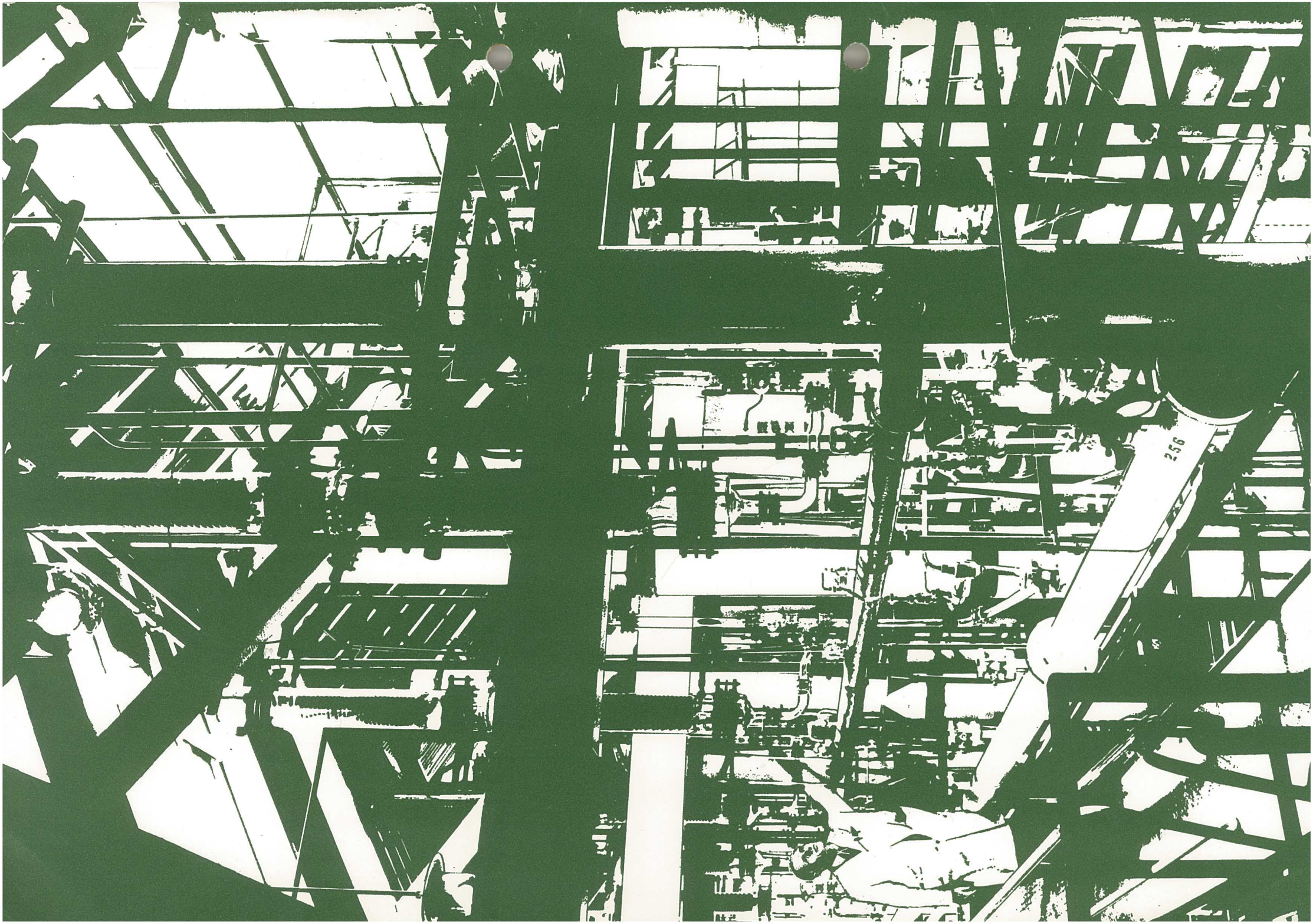
Bush Boake Allen

essential oils

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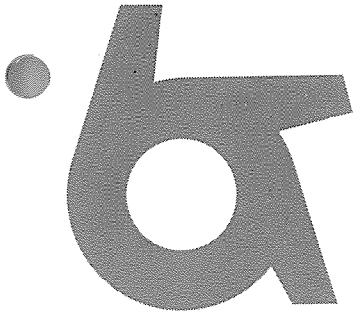
NJ DUNBAR

Bush Boake Allen
A division of Albright & Wilson Ltd



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In the essential oils trade two names have figured prominently: Stafford Allen and W. J. Bush. The products of both these companies have been renowned for their excellence for well over a hundred years, both in the United Kingdom and overseas. Recently the two names became joined with a third – Boake Roberts – in the creation of the relatively new company of Bush Boake Allen. Thus the knowledge, experience and resources of these three manufacturers have been fused into one modern, progressive, forward-looking organisation – to provide a range of oils that, for scope, quality and sheer reliability, compares favourably with the best that the world has to offer.

This booklet outlines our range of essential oils and indicates the manufacturing and laboratory resources that lie behind them – all these factors being bound together by one single aim: the provision of a constructive, efficient, imaginative customer service.

contents

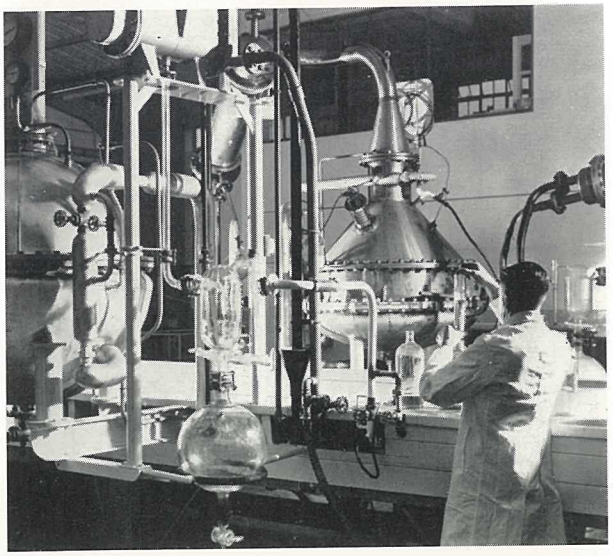
A technology . . . or an art?

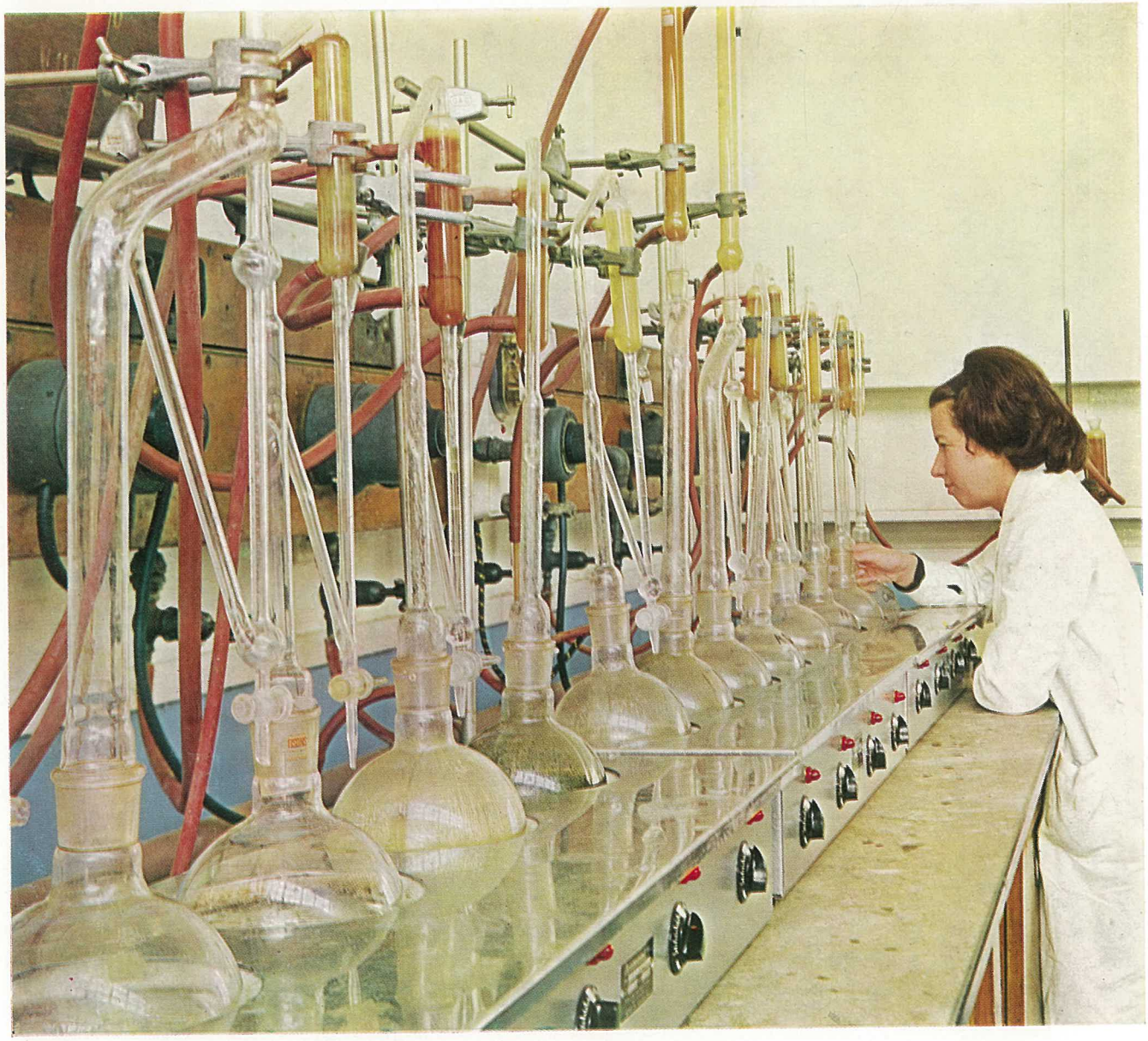
Knowledge, experience, judgement: given the most complete, the most modern, the most effective equipment, both in production and laboratory facilities, these are still the factors that contribute most to success in the processing and marketing of essential oils. Formed as by-products of natural plant metabolism, with all the vagaries engendered by the characteristics of the particular growing region, by climatic influences, the time and method of harvesting, the storage and preparation of raw materials, an essential oil is a sensitive – if the term is permissible, even a temperamental subject! And the ultimate criterion in the control of quality, and the selection of an oil for fragrance or flavour, and its enjoyment by the eventual consumer, all stem from a purely subjective appreciation. Thus it might be said that in the production and employment of essential oils there is as much art as science.

Knowledge, experience, judgement

In the people who produce our essential oils these qualities are of course interrelated, indivisible. Whilst our technologists keep well abreast of current developments, both in manufacturing and analytical techniques . . . in many cases it is they who originate new methods . . . they work with a legacy of knowledge that has accumulated in the company's hundred years of manufacturing experience. And this experience embraces the entire scope of essential oil production and marketing: the cultivation of indigenous crops, the purchasing of plant materials and oils from overseas – entailing a comprehensive and intimate understanding of world markets – and an exhaustive command of every facet of distillation procedures. It is from this knowledge, this experience, that judgement evolves . . . and it is upon judgement that success depends. Many of our technologists are authorities on the subject of essential oils – conducting much original research and making frequent contributions to the literature. Finally, one essential attribute permeates every aspect of their work – an almost indefinable attribute that stems from a 'feeling' for the subject, a sensitivity to its finer aspects – a creative attitude for which only one word will suffice . . . artistry.

Thus we support our contention that the production of essential oils is part art, part science. One vital factor remains . . . you, our customer. It is the frank, honest purpose of this publication to convince you that we can provide a product and a service that you will find satisfactory in every respect.

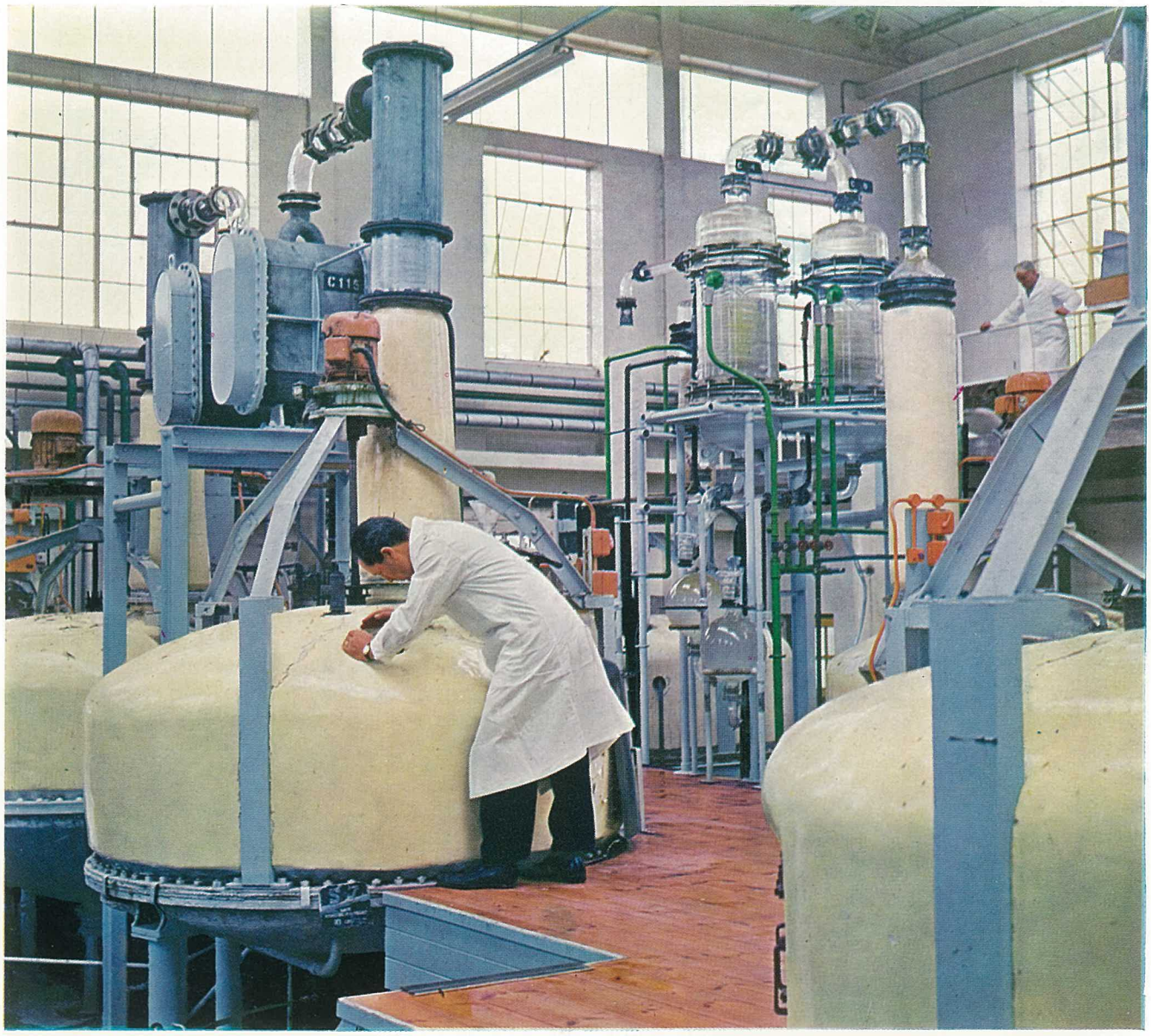




Fractional distillation at our Long Melford factory. A fraction of an essential oil is being examined. Simple physical tests are made throughout a fractionation, in the preliminary assessment of quality. More exhaustive tests follow.

Trial distillation of raw materials, in the evaluation of yield and quality of essential oil.

Water stills at Long Melford. These are employed for materials which, because of their physical nature, or because of the sensitivity of the oil, may not be steam distilled: for instance, if the basic material is finely powdered, or if the constituents of the oil are too heat labile for steam distillation to be used.



English Distilled Oils

Long Melford village. Amongst the farms and fields of the Suffolk countryside is one of the world's most modern distillation plants for the production of essential oils. Here, in an area where craftsmanship and inherited skills play such an important part in the life of the community, it is appropriate that there should be produced a range of oils that have earned worldwide esteem under the title 'English Distilled'.

In a manufacturer's description of his own products the use of superlatives scarcely carries authority; thus we find it difficult to convey the extremely high standards of quality that we achieve in our range of English Distilled Essential Oils. Nevertheless, in the experience of flavorists and perfumers throughout the world we are certain that the claims that we make are fully substantiated.

The elements of success

Two main factors account for our success. One: the greatest care is taken in the selection of raw materials – whether these are purchased from external sources or grown on our own farms, under our own control. Here the knowledge, experience and skill of the buyer is all-important: knowing what to buy, knowing where to buy, knowing when to buy. Two: a complete command of distillation techniques.

The raw materials

In the purchasing of natural plant materials, samples are trial distilled and the oil is assessed for yield and quality by applying organoleptic and analytical procedures. Consignment samples are similarly tested, and only if the results agree are final purchases made.

It is well known, of course, that many plant materials deteriorate after harvesting; for this reason, our range of English distilled oils is limited to those from materials that will not deteriorate during storage and shipment.

We have accumulated a vast fund of recorded information on the various sources of supply, and the comparative merits and demerits of the crops that they produce, which is of great value in purchasing strategy.

Distillation techniques

A whole range of stills of various types is maintained, in order to provide for the differing requirements of basic raw materials. It is upon the preparation of the raw material, the selection of the particular process to be employed, and the careful control of distillation conditions, that success depends. After distillation, to ensure uniformity, batches are filtered, bulked and allowed to settle. Sufficient time is allowed for the oils to mature naturally, to eliminate the off flavours and odours sometimes present in freshly distilled oils. Conditions of storage are also carefully controlled, in order to preserve the extremely high standards of quality attained.

◎ Flavour commentary
✧ Perfumery commentary

Quality control
Throughout all stages of production a firm discipline of quality control is exercised. Various quality control procedures are employed: the determination of physical constants, chemical analysis, and more modern techniques such as gas-liquid chromatography, thin-layer chromatography and infra-red spectrophotometry. Whatever the 'mechanical' methods of analysis applied, however, subjective evaluation by nose and palate still remains the final arbiter in the approval of quality standards.

A vital factor
One vital factor remains: Whatever the virtues of the equipment employed, or the technical proficiency of the operator, whatever the sensitivity of 'mechanical' methods of analysis or advances in the technology, ultimate success depends upon a compound of intangible, human factors that almost defies definition. Knowledge, experience, skill, judgement . . . it is composed of all these and more. However, although words may prove inadequate, one perfect demonstration of the truth of our argument can be offered . . . the products themselves.

A list of the more important oils follows. If you are not already acquainted with them, we should be pleased to supply samples of any that you may care to select.

Asafoetida
Produced from the oleo gum resin from the root of the plant. Has a strong garlic/onion odour. Useful as a modifier in condiments.

Balsam Peru
Essential oil of balsam peru is often prepared from the balsam by neutralising the balsamic acids and extracting the oil with a solvent. Our product is a true essential oil in that it is derived by distillation, by a procedure which we ourselves have developed and perfected.

✧ Warm, smooth, almost chocolate-like odour. Apart from obvious uses in woody-spicy perfumes, it blends well in light compositions.

Balsam Tolu
Distilled by us only when we can obtain genuine balsam tolu.

✧ A remarkably warm character, particularly eligible for masculine fragrances. Its odour is similar to that of the balsam peru oil, but is distinguished by an additional intense topnote.

Bay
This is oil of sweet bay *(lauris nobilis)*, which is quite different, both in its origin and constituents, from the West Indian bay oil.

◎ Freshly sweet and pleasingly aromatic flavour with a rich, warm, spicy background note. Used extensively as a flavour, especially in such delicacies as pork brawn and soused herrings, and in canned meats.

✧ Deserving of much greater attention by perfumers. Has a somewhat eucalyptus topnote, with very warm, spicy undertones. Bears some resemblance to cardamom oil. Useful in modern aldehydic fragrances – in addition to its more obvious uses in men's perfumes.

Buchu

With the main use of oil of buchu in blackcurrant flavours, the value of its diosphenol content is a matter of opinion. It is held by some that the required flavour value stems from the terpenes and *l*-menthone, and thus that the oil from the oval leaf is preferable. On the other hand, some prefer an oil with a diosphenol content as high as 40%. With such a divergence of opinion we test every bale of every consignment of leaves, to provide, as far as possible, the particular diosphenol content required. Only selected leaves are employed.

◎ Associated with synthetic blackcurrant flavours.

✧ Only rarely used in perfumery. The pungent odour of this oil is difficult to describe. The term 'minty' is sometimes used – occasioned by the ketones, which are present in mint oils – but it is an inadequate description of the characteristic odour, which would be extraordinarily difficult to simulate.

Caraway

Distilled from the best Dutch seeds, free from seeds from grasses or other sources, to give an oil of high carvone content.

◎ Clean and smooth flavour. Ideal for liqueur blends.

✧ Used widely in perfumery, normally in trace quantities. An oil of such high quality is a worthy addition to any perfumer's odour library.

Cardamom

Only green and fresh seeds from Malabar and Ceylon are used, carefully selected and purchased at just the right time. The whole fruit is used, the capsule included, and is crushed immediately before distillation ; (the capsule itself contains very little oil, but affords protection to the seed and prevents loss by evaporation).

◎ Aromatic, warm and spicy flavour, of wide application in cakes, meats and sauces.

✧ Much more top than other oils of the ginger family. Useful in all modern perfumes – even floral complexes.

Cascarilla

Expert attention during the maturative period is essential in the production of a fine quality oil of cascarilla.

◎ Somewhat bitter and burning taste, but nevertheless pleasant and strongly spicy. Reminiscent of a blend of nutmeg and culinary herbs. Used in tobaccos and liqueurs, and especially useful in aperitifs and aromatic bitters.

✧ Odour somewhat reminiscent of nutmeg, but suggests thyme. Needs to be used prudently, but merits consideration for use in modern fragrances – particularly men's perfumes – where it has considerable affinity with mossy-woody undertones.

Cassia Bark

This oil is produced from the bark of a tree known as Chinese cinnamon, whereas imported cassia oil is derived from the leaves and twigs of the same tree. Adulteration of the imported oil is very common and is detectable only by expert flavorists.

◎ A flavour similar to cinnamon bark oil, yet distinctly different because of the trace components. It is completely free from the benzyl taints associated with imported oil.

✧ Of much finer odour quality than the imported oil.

Celery Seed

The use of high-quality raw materials – French seeds and best clean seeds from India – is essential. This, coupled with expert technique, accounts for the superb quality of the English distilled oil.

◎ This is a powerful and penetrating flavour, with a warm and characteristically spicy note. Wide application in soups, meats, sauces, etc.

✧ Has a certain odour affinity with high-quality tobaccos. Particularly useful in perfumes for men's preparations. Blends well – and perhaps somewhat unexpectedly – with a jasmin-rich complex.

Inspecting a field of clary sage.

Chamomile

Distilled from fresh flowers grown on our own farms at Long Melford.

✧ Very light, ethereal odour. Requires to be used with great discretion, but allows many desirable effects to be obtained. Deserves the closest attention of all interested in fine perfumery.

Cinnamon Bark

High eugenol-content oils have flavours more reminiscent of clove than true cinnamon bark. For our English distilled product we use only high-grade, selected Ceylon cinnamon quills, which produce an oil containing up to 75% cinnamic aldehyde and with a low eugenol content. For fineness of flavour and odour, the English distilled oil is without equal.

◎ Genuine Ceylon cinnamon bark oil has a characteristic sweet and spicy flavour. It is cleaner and sharper than cassia oil because of its eugenol content.

✧ Oil of cinnamon bark is deserving of greater use in perfumery, but because of its high price it is frequently adulterated. Our product contains no additives and has an exquisite, delicate odour. Gives a wonderful warmth to perfumes – particularly those with woody-musky undertones.

Clary Sage

Perhaps the most English of English distilled oils. The herb is grown on our own farms at Long Melford and produces an oil highly esteemed by perfumers throughout the world.

◎ Wide application in tobacco flavours.

✧ The odour of the English oil is unique. Has a delightful sweet pea/muscatel note, in addition to its linalol/linalyl acetate characteristic. It also possesses a certain ambergris quality. An extremely valuable modifier, blending well in almost any odour complex.

Clove

Distilled exclusively from selected clove buds and thus containing – in addition to eugenol, which is of course the main constituent of all clove oils – the ester, eugenyl acetate, together with traces of ketones, vanillin and other components – all contributing to the fruity odour which characterises the English oil.

This is one of the best English distilled oils – there being so much scope for the perfectionist, both in the selection of the raw material and in the application of distillation techniques.

◎ One of the most important of all the essential oils, with almost unlimited flavour application. Pure clove bud oil has a quite distinctive attractiveness when used in cakes, sugar confectionery, meats and pickles.

✧ The true odour of clove buds, with no stem or leaf oil to mar its rich fruitiness. Well matured, and very smooth in character. With its delightful bouquet, gives a richness unobtainable with any other clove oil.

Copaiba

Distilled from selected balsam copaiba.

✧ Although its major constituent is a terpene which could be obtained from other sources, this oil has an appealing odour – quite distinctive and inimitable – and is in continuous demand for perfumery.

Coriander

Distilled only from the best seeds, from Russia, Poland, Rumania and Yugoslavia—great care being taken to avoid the use of siftings and seeds of poor quality.

◎ The flavour of coriander fruit oil is mild, sweet and delightfully aromatic, and is the natural background blender for all the spices. It is recommended for fine flavours, liqueurs and other alcoholic beverages, and for meat and pickle seasonings.

✧ The main constituent of coriander oil is linalol, with small amounts of geraniol and decylic aldehyde. It is widely used in perfumery – blending well with most floral and all citrus compounds. Its warm, spicy character makes it particularly eligible for masculine fragrances.

Cubeb
From the genuine, carefully selected fruit.
✧ Has the warm undertones characteristic of black pepper oil, with less of the terpene-like odours that often occur in grades of lower quality. Very useful in modern, woody complexes.

Cummin
As with all umbelliferæ herbs, the choice of seeds for distillation is critical; alien seeds from weeds and grasses can seriously mar the quality of the finished oil. Our raw material is chosen with the greatest care.
◎ In growing demand for flavouring cooked meats, sauces and cheeses. An experienced palate can immediately detect the superiority of a totally natural oil such as this.
✧ Blends well with fougere and chypre notes in modern, spicy fragrances. The 'chemical' odour of synthetic cuminic aldehyde is totally absent.

Dill
Distilled from *anethum graveolens*, grown on our own farms at Long Melford.
◎ The flavour of dill seed oil is warm but very pleasant, and powerfully aromatic. It is markedly different from the oil obtained from dill weed, with which it should not be confused.
✧ Rarely used in perfumery, but could be considered where a caraway note is required.

Galbanum
As with other oils, selection of raw materials is very important. High quality chiefly depends, however, on distillation technique. Our high standard stems from our extensive experience.
✧ Very widely used in perfumery. A product for which the demand in the industry is increasing quite rapidly.

Garlic
Our English distilled product – from selected Italian, French and Spanish garlics – is universally accepted as the criterion of quality.
◎ The odour of garlic oil is extremely intense, but when used correctly it has a delicate and natural flavour character. The use of genuine English distilled garlic oil is imperative in foods for canning or any form of prolonged storage.
✧ Although hardly ever used in perfumery, the effect of minute traces of oil of garlic can be quite desirable.

Ginger
Distilled from the whole rhizome and thus possessing a natural and balanced combination of the many and varied constituents: zingiberene and its alcohol, zingiberol, and several aldehydes, including decylic and citral, and linalol – all contributing to the truly delightful aroma.
◎ The flavour of ginger oil is warm and spicy, but non-pungent. It has wide application, of course, in confectionery and beverage flavours.
Oleoresin of ginger should combine pungency with the delightful aroma of the oil, but invariably the flavour balance is upset in the extraction process. Use of the oil can therefore replace much of the flavour quality in products such as ginger beer and ginger ale.
✧ An interesting, almost herbaceous topnote – in addition to the characteristic warm, spicy undertones. Almost indispensable in modern perfumery.

Hop
◎ The characteristic flavour of hop oil makes it very useful in many beverage flavours. It has a rich, bitter-aromatic and spicy aroma which blends well with other flavouring materials.
✧ Used in minute quantities, hop oil can impart a certain 'natural' quality to a perfumery composition.

Ginger root

Juniper Berry

Our oil is distilled from carefully selected berries, sound and ripe, obtained from Italy and Hungary. The quality of the oil thus produced is much superior to oils derived as by-products in the distillation of Steinhager, in Germany and Austria, from fermented berries.

◎ The very fine quality of this product makes it a valuable component of flavours for beverages and liqueurs of the gin type. It is also available in the terpeneless form.

✧ Almost angelica-like undertones. Extremely useful in modern masculine compositions, where its affinity for citrus oils – as well as lavender, spice notes and mousse de chêne – allows many unusual effects to be obtained.

Lavender

Distilled from fresh flowers grown on our own farms at Long Melford. English lavender oil cannot be imitated by blending foreign oils. Its distinctive quality lies in the balance of alcohols and esters, and in the richness of odour that is peculiar to the plant grown in the English climate. Most of the linalol is free in the English oil; whereas in foreign oils it is combined as esters.

✧ As with English peppermint, has an odour quite unlike that of the ordinary, commonly available lavender oil. It has a very smooth herbal tonality.

Myrrh

Gum myrrh is distilled to yield a viscous oil with the true myrrh aroma in extremely high concentration – honey-sweet and persistent.

✧ Every perfumer knows the warm, somewhat smoky effect which this oil imparts, even in quite small proportions.

Nutmeg

Again, expert judgement in the selection of raw materials, together with a full command of distillation techniques, pays dividends in quality. We distil both East Indian and West Indian nutmegs in considerable quantities. Users have their preferences and we are usually able to supply either kind, fully matured.

◎ This oil is indispensable in the blending of liquid seasonings for sauces and meats.

✧ The perfumer is probably more familiar with the West Indian oil. The East Indian oil has a much fuller note, with a more floral bouquet. The oils are not interchangeable; in fact, substitution of one for the other in an established compound could be disastrous. Trace quantities of either oil can prove effective in sophisticated perfumes – particularly those with a woody/amber backnote.

Olibanum

This is a very fine oil, with a true note of the gum frankincense. As with myrrh, labdanum, opoponax and galbanum, distillation from such a perfumery gum demands very special techniques and apparatus.

✧ A light, almost thyme-like topnote, with warm, woody undertones. Blends well with citrus oils – apart from its more obvious uses.

Onion

Our distillation plant is probably the most modern and efficient of its kind – allowing the oil to be recovered in quantity and in good, natural quality. Distillation of oil of onion is an art, success in which has eluded workers throughout the world. The oil may be judged on its performance in use; that is, its true flavour must remain unimpaired over a period of time.

◎ The flavour of onion oil is warmly aromatic and quite characteristic. Its true, natural quality is readily reflected in pickles, sauces and soups, as well as in meat and savoury products.

✧ It is worth remembering that most natural products contain trace sulphur compounds, and the use of *minute* quantities of onion oil can often help to obtain a natural quality in an odour complex.

Opoponax
Similar to oil of myrrh, but with a brighter note. The oil is not as viscous as myrrh – a related gum – and possesses the true note of gum opoponax.

✧ An intense, spicy, balsamic odour. Mainly used in woody/heavy fragrances, it blends well with vetivert, musk and patchouli. Must be used with great discretion; too great an opoponax touch may become even more emphatic on ageing.

Orris Root
A concrete, produced exclusively from selected Florentine root which has been subjected to prolonged storage in order to allow the development of irone. Our distillation technique has been perfected over many, many years—culminating in the immaculate quality which is now universally recognised. Our product is standardised by blending early and late fractions, with a final irone content of about 14% – all of which is of course entirely natural; (adjustment by the addition of synthetic irone gives a product of inferior quality).

✧ A fine product – completely consistent both in odour and irone content.

Parsley Herb/Parsley Seed
English oil of parsley herb is quite distinct from English seed oil, in that it is distilled from the first year growth of leaves only and hence possesses all the desirable odour and flavour characteristics of the fresh, green herb.

◎ The flavour of the English herb oil is very delicate and truly represents fresh garden parsley. The seed oil is different in flavour, because of the presence of apiole, but nevertheless is eminently suitable for use in all kinds of processed foods—particularly canned meats.

✧ With the growing popularity of perfumes with a herbal/spicy complex, these oils are coming to be more and more in demand.

Patchouli
This oil is distilled extensively in the growing areas. A comparison of such imported oils with the product of our distillation strongly emphasises the importance both of leaf selection and of the distillation techniques employed. We seek to retain all the subtle topnotes, and at the same time recover the vitally important high-boiling constitutents, to produce a 'whole', rounded oil of exceptional quality.

Pepper Black
There are many varieties of pepper, and different sources of the same varieties. We have distilled pepper for many years, and the recent expansion of our productive resources equips us to provide a product of high and consistent quality. Distillation technique is of paramount importance, if the oil is to be recovered complete and with quality unimpaired.

◎ Pepper oil has no pungency and has a somewhat dry and woody odour. Its value is in spice blends and seasonings. It improves markedly the pungency quality of cayenne pepper.

✧ Very valuable in perfumery – particularly in modern aldehydic fragrances. Blends well with spice and amber notes. In our product the light topnote has not been lost, still with the warm characteristic undertones.

Peppermint See page 23.

Pimento
One of the most appealing of the spice oils. Reputed to suggest a mixture of spices, which accounts for the title of 'allspice' by which it is sometimes known. Association with clove, cinnamon and nutmeg is readily detectable.

◎ The flavour of pimento berry oil is warm, sweet and spicy. It is of particular value in seasonings for meat sauces, pickles and sausages, and in many confectionery flavours. It differs very considerably from pimento leaf oil – the 'allspice' quality of which is out of balance because of a high phenol content.

✧ The present popularity of spicy fragrances makes this oil of particular topical interest.

Picking pepper, near Kuching, Malaysia.

Sage Herb

This is distilled from locally grown sage, mainly for use in our own flavour products. The oil reproduces the fresh herbal quality of English sage, which is quite different in flavour from other European sages.

◎ The thujone flavour characteristic of English distilled sage herb oil is less pronounced than that of Dalmation sage. This sweeter note makes it an excellent oil for use in blended seasonings.

✧ The English distilled oil has a quite distinctive odour character. Of great interest in modern spice and herbal complexes.

Sandalwood

The distillation of East Indian sandalwood oil is an established industry at source, and the product is of good and reliable quality. We take pride in the fact that we can import the wood, distil here in England, and still produce an oil with sufficient character to surpass this excellent competition. Our own oil has a characteristic topnote which finds favour in high-class perfumery. The preparation of selected billets for distillation, the design of the still employed, the perfection of technique – all contribute to produce the matchless odour of the English distilled product.

Valerian

Care in the selection of root is of vital importance – particularly with regard to its age after lifting, in that it must be distilled at the right time if fine odour quality is to be obtained.

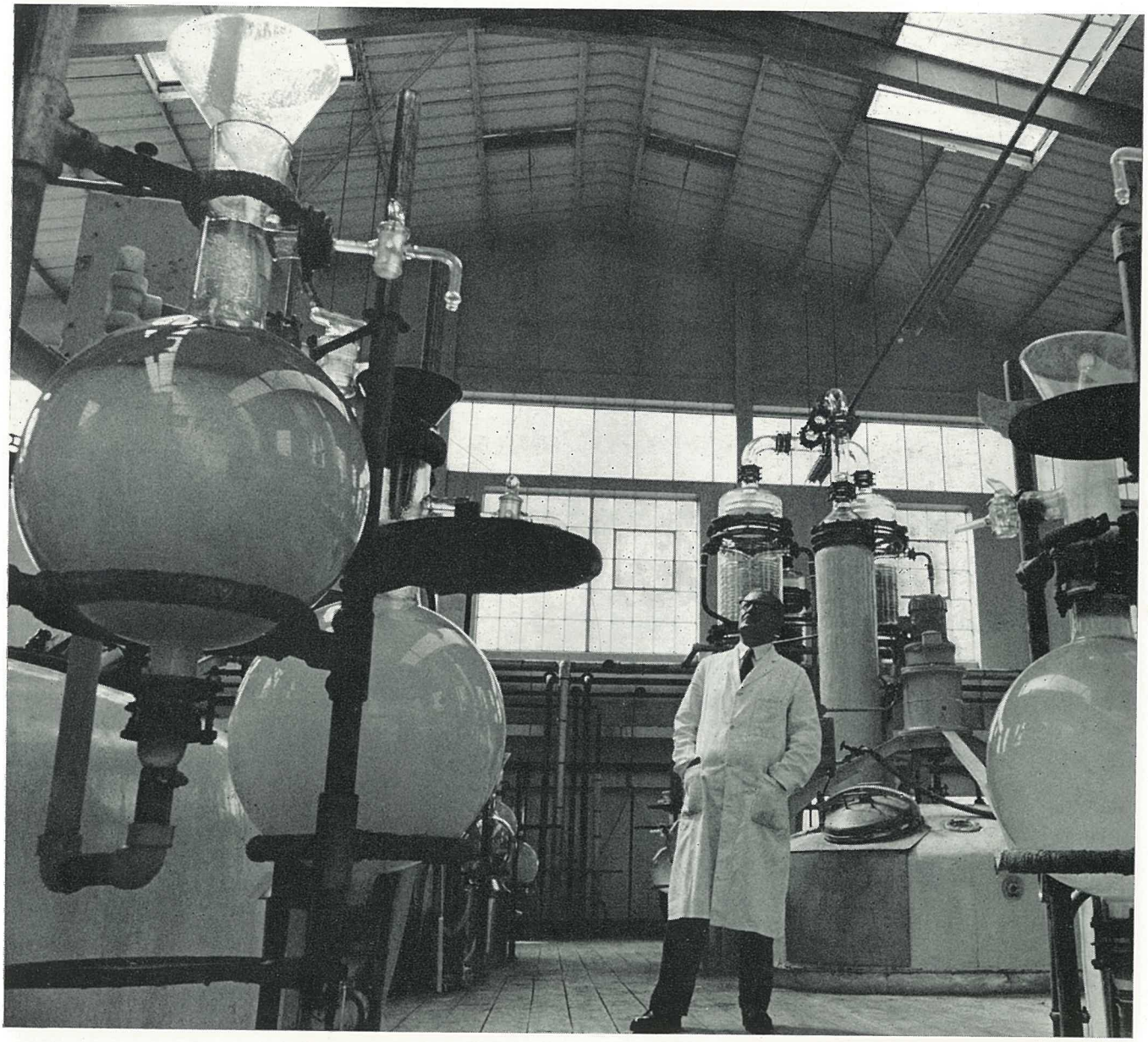
◎ Valerian oil is most commonly used in tobacco flavours and also, together with hop oil, in certain beverages. It has a fresh, green, slightly camphoraceous note which is characteristic.

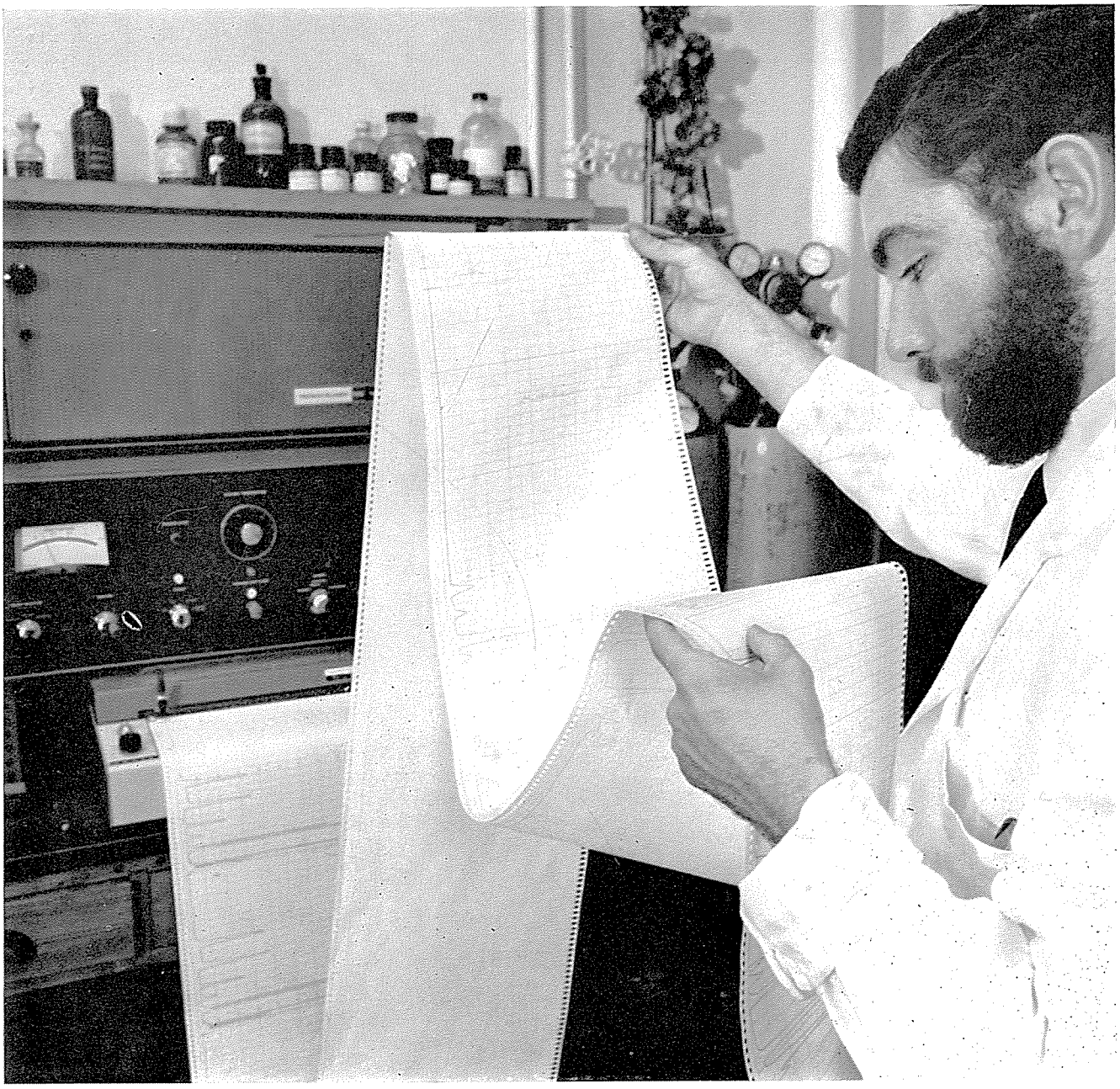
Words cannot convey the true quality of the English distilled oils. Only an examination of the oils themselves can demonstrate their superb odour and flavour values – obtained as a result of the most meticulous care at all stages of manufacture. Thus, in support of the claims that we have made, we should be pleased to supply samples of any of the oils in which you happen to be interested. If your product demands an oil of the highest possible quality, only an English distilled oil will suffice.

Drawing samples, with a special tool, from sacks of cloves.

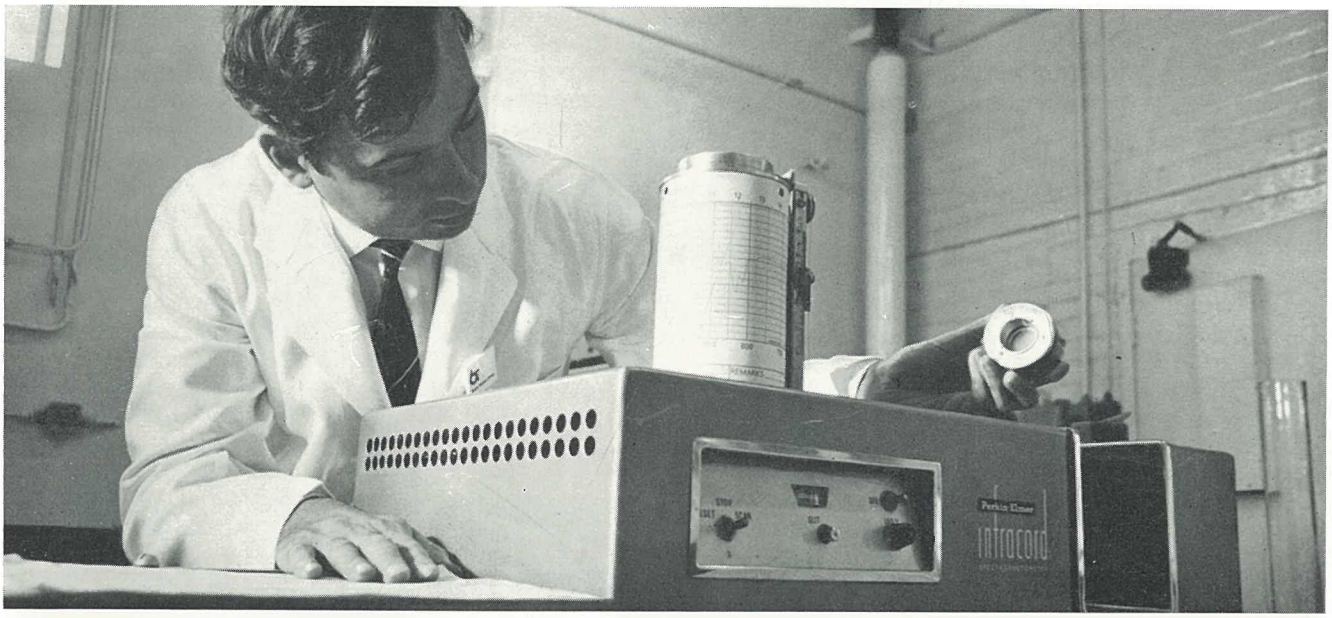
The raw materials warehouse at Long Melford. The knowledge, experience and skill of the buyer is all-important: knowing what to buy, knowing where to buy, knowing when to buy.

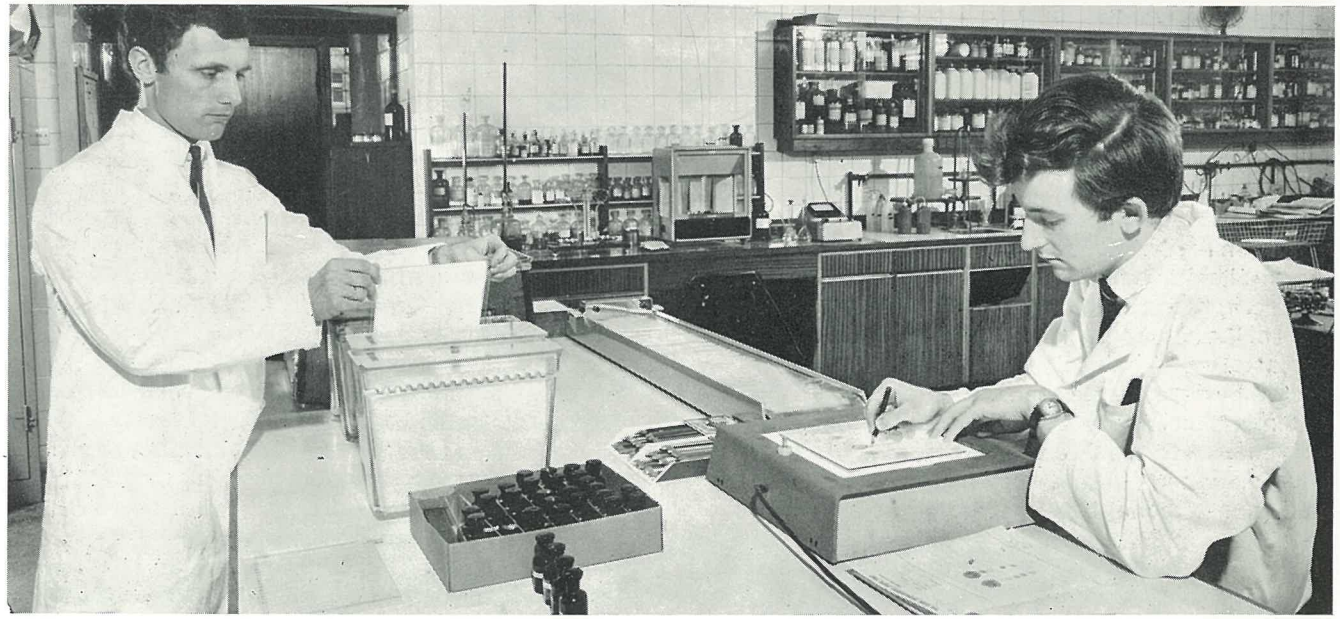
In the distillation of pepper, technique is of vital importance if the oil is to be recovered complete and with quality unimpaired. The English distilled product is renowned for its high and consistent quality.





A firm discipline of quality control, through all stages of production, is a significant factor. Various quality control procedures are employed: the determination of physical constants, chemical analysis, and more modern techniques such as gas-liquid chromatography, thin-layer chromatography and infra-red spectrophotometry.





Terpeneless, Sesquiterpeneless and Concentrated Oils

The terpeneless, sesquiterpeneless and concentrated oils that we offer are included in the complete list of oils that commences on page 30. Descriptions of one or two of the more important oils are given at the end of this section.

Although users of essential oils are no doubt fully conversant with the characteristics conferred by deterpination, some purpose may be served by a brief account of the purposes and advantages of terpeneless oils.

The terms sesquiterpeneless, terpeneless and concentrated of course simply indicate degrees of deterpination, in descending order.

The terpenes – in which term is included the sesquiterpenes – are often referred to in disparaging terms; nevertheless they do constitute quite an important part of the balanced composition of an essential oil, and their removal, in whole or in part, is often found to modify the odour and flavour to a greater extent than simply to effect concentration.

Many of the most attractive and expensive essential oils – pepper, for instance – contain a high proportion of terpenes and are rarely, if ever, deterpinated. The main objection to the presence of terpenes for some applications is not concerned with their odour or flavour, or lack of these qualities, as much as their poor solubility in alcohol. Such is the case in the manufacture of flavouring essences and a certain limited range of perfumery products.

Deterpination, then, may be highly desirable and advantageous in cases where the composition of an oil is such that the removal of the terpenes does not greatly alter its character but where a high terpene content impedes the oil's utilisation. This applies to most of the citrus oils – lemon, lime, orange, bergamot – and, indeed, the citrus oils are more frequently deterpinated than other groups.

Deterpination is also successful where the original oil is composed mainly of a simple mixture of one low-boiling terpene and one high-boiling oxygenated (non-terpene) body, as in caraway and dill oils.

Effective deterpination requires intimate knowledge of the primary oils if concentration is to be obtained without damage to their desirable odour and flavour characteristics. Until comparatively recent years the process was entirely one of distillation – with success dependent upon a combination of experience and judgement. The latest techniques in deterpination now include chromatographic separation of the flavouring constituents of essential oils, but here again success depends upon the skill of the operator.

By combining the two methods effectively a remarkably high standard of quality in terpeneless oils is now possible. With our vast experience in essential oil distillation, and our close contact with developments in the technology, we are ideally equipped to specialise in this particular field, and our products are accepted as criteria of quality throughout the world. With their English-distilled parentage, our terpeneless oils of juniper, ginger and nutmeg are without equal.

Terpeneless oils are of particular value in the food industry, where solubility and stability are of prime importance. In food products such as dry cake mixes, lemonade powders, custard powders and jelly crystals, where a large suface area is presented to the atmosphere, the risk of oxidation taking place is high, and the presence of the unstable terpenes would seriously reduce the shelf-life of the product.

Terpeneless oils are also used in food products which require water-soluble flavouring agents.

In the soft drinks industry, terpeneless oils are used extensively – not only because of their greater solubility, but also for their stability. Clarity is also vital in liqueurs – which, in fact, constitute a major use of terpeneless oils.

In fine perfumes – where, again, solubility and brilliant clarity are of major importance – terpeneless and sesquiterpeneless oils are often used.

Concentrated oils are those from which the terpenes have been partially removed. In order of degrees of deterpination, these oils – usually citrus types – fall midway between the original and the fully deterpinated oils. They retain much of the character of the original oils, but provide a more convenient dosage rate. They also better withstand baking temperatures.

Bergamot Terpeneless
Prepared under carefully controlled conditions, from selected Italian bergamot oil.

✧ Known to all perfumers, of course. Its solubility in alcohol enables it to be used where the less soluble oil may present difficulties.

Lemon Sicilian Terpeneless
Only top-grade oil is used, and the method employed is such that the oil is exposed to the minimum temperature in all stages of separation – achieving a final citral content of 50–60%. All the associated alcohols, aldehydes and esters of the original oil are retained in their natural proportions – thus ensuring the transference of a completely authentic flavour to the manufactured end-product.

◎ The process used in the manufacture of this oil ensures the retention of the maximum genuine lemon peel note. This makes it an invaluable and very stable flavouring component.

✧ In high-class perfumery there are occasions when the use of terpeneless oils becomes imperative. In this particular case – lemon – the delightful bouquet is almost unobtainable by any other means.

Limes Terpeneless
Produced from selected low-rotation oil.

◎ Essential in high-quality beverages. Good solubility.

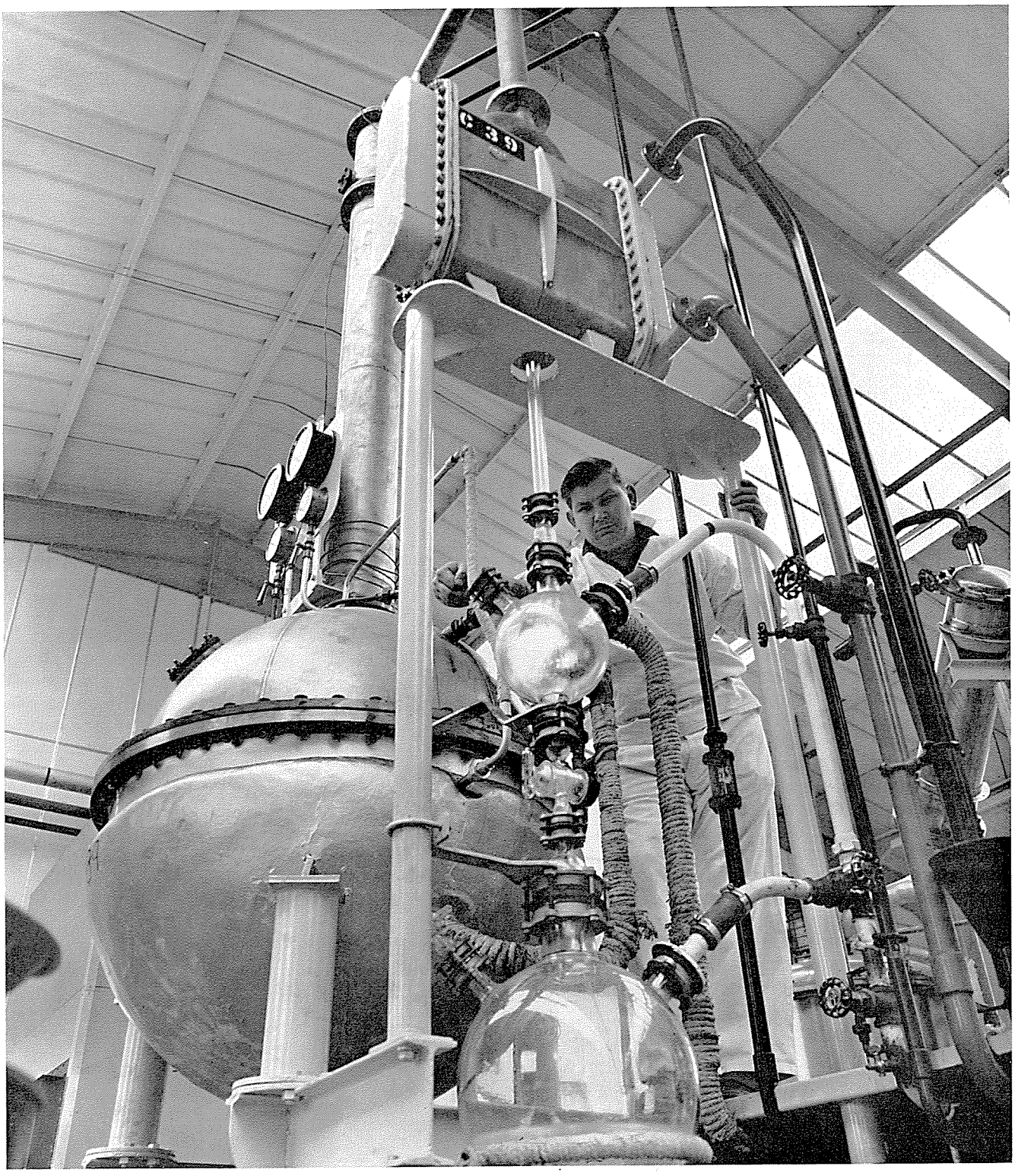
✧ Should be a standard component of any perfumer's odour armoury. Lime, of course, is currently in favour in men's preparations.

Orange Sweet Terpeneless
The oil selected for deterpination is only that with the most satisfactory balance of aldehydes, alcohols and esters. Technique is of course the important factor, and our very high purity figures stem from the use of a combination of extraction and distillation.

◎ Terpeneless orange oils can vary considerably in flavour character, but the method of manufacture of our oil ensures the maximum retention of the fresh, sweet notes which are so typical of orange peel.

✧ As with lemon – perhaps even to a greater degree – the use of terpeneless orange oil can produce effects unobtainable by any other means. Forms part of the aldehyde complex of any modern perfume.

High-vacuum still with fractionating column, used in the production of terpeneless oils at Long Melford.



Peppermint Oils

All three of the companies that came to constitute Bush Boake Allen had had considerable experience in the distillation, rectification and blending of peppermint oils. Each had a range of oils that extended over the entire field of end-uses; each had acquired a considerable reputation for the quality of its products. With the amalgamation of these three ranges, with the unification of production, technical service and research facilities, we are undoubtedly one of the world's leading suppliers of peppermint oils. The extent of our range can be seen from the oils listed on page 32. From English Distilled Peppermint Oil, which, for fine liqueurs, is a product of unique flavour value, to oils for the most unpretentious of boiled sweets – the range provides for every end-use and extends over the full scope of price gradation. We should be pleased to make recommendations for particular applications and to assist with any problems that may be encountered. Samples of any of the products listed are freely available, together with specifications and typical figures. Brief descriptions of a selection of oils from our range are given below.

English Distilled Peppermint Oil

Distilled from English peppermint, grown on our own farms at Long Melford. The proximity of fields to factory ensures that the herb is harvested and distilled at precisely the right time, to produce an oil of outstanding and consistent quality. For an oil of the highest possible standard, with a smooth, sweet yet powerful odour and flavour, English Distilled Peppermint Oil cannot be surpassed. It is recommended for use in liqueurs and other applications where only the finest oil can be considered. The true flavour of peppermint oil is apparent only in low concentration, and it is this true flavour which really distinguishes the English Distilled oil from all others.

American Oil of Peppermint Black Leaf Natural Prime

As its name suggests, this is our first quality of natural American oil. Of Mid-West origin, it is obtained by us directly from our own producers – with the utmost care exercised in its selection. It is outstanding for its clean, mellow flavour and is suitable for all kinds of high-class sugar confectionery. It is specially recommended for chewing mints.

American Oil of Peppermint Black Leaf Natural B

From our own producers in the Far West – again, selected with the greatest possible care in order to maintain a high and constant standard. Its flavour characteristics are different from those of the Mid-West oils, but it gives excellent results in sugar confectionery – particularly in clear mints.

Peppermint

Rectified Peppermint Oils

There are two stages in our rectification of peppermint oils – producing single-rectified and double-rectified oils. In essence, the first stage is a redistilling operation in which traces of moisture and any non-volatile residues are removed. The second stage, in addition, removes the lowest boiling or first fractions – the terpenes, in fact.
Our experience in the rectification of peppermint oils is extensive, and our plant amongst the most modern and advanced of its kind. This, plus the judgement and skill of our technologists, accounts for the high standards of quality that we achieve, and for the versatility of our range.

American Oil of Peppermint Black Leaf Rectified BB

This is a single-rectified oil, which has been refined and stabilised. It is recommended for chocolate centres, mint creams and toothpastes.

American Oil of Peppermint Black Leaf Rectified BBB

A double-rectified oil: that is, it has been refined still further by the removal of the terpenes. It is soluble in alcohol and thus can be used in liqueurs and high-quality flavouring essences – for which its superb quality makes it eminently suitable.

Italian Oil of Peppermint Santa Maria Natural K

A natural oil from the herb grown in the Po valley – often known as Italo Mitcham oil because of its marked similarity to English oils. It is in fact derived from herb of English origin. Its flavour is quite unique —as is the case with other herbs grown in the Mediterranean area. Its flavour is both stable and persistent: hence it is the ideal oil for use in toothpastes.

Blended Oils

The choice of a peppermint oil for any given application must of course involve consideration of price . . . which introduces the subject of blends. The advantages of blended oils are well known. Skill in blending allows flavour values to be enhanced, and enables particular flavour attributes to be obtained within a stipulated cost margin. Blending also allows consistency of quality to be preserved from batch to batch, consignment to consignment. Our range includes a large selection of blended oils, extending over a wide scale of prices and end-uses. Some examples are given here.

Mellomint 607

Originally developed for sugar confectionery and now widely used throughout the world. Being a blend of *piperita* oils, including our own English Distilled oil, this product has the characteristic Mitcham note. The price compares favourably with those of *piperita* oils from other sources.

Alphamint

A blend of selected oils of high flavour quality. Competitive in price.

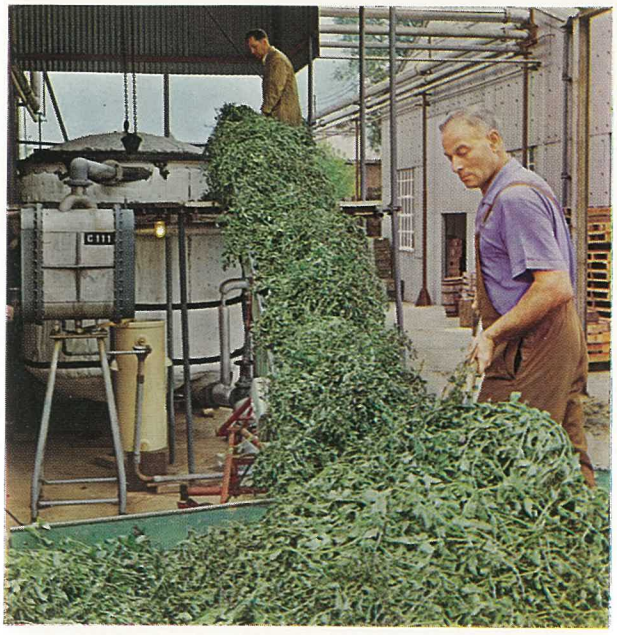
Peppermint Oil H2890

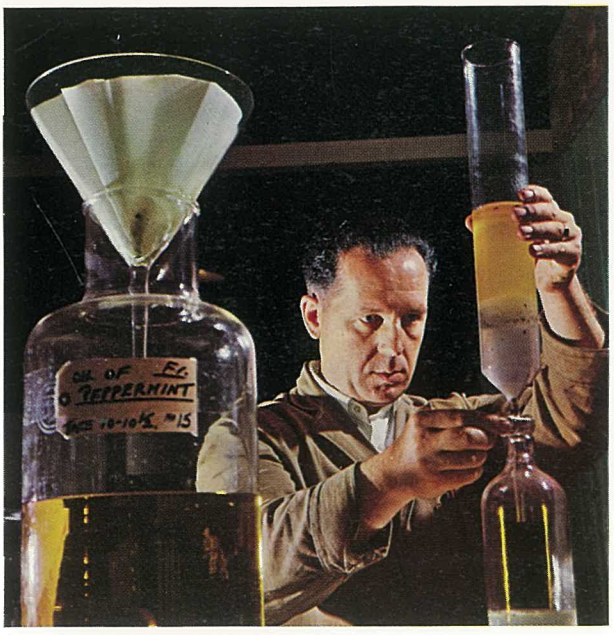
A special blend which, due to its smoothness of flavour, is popular with confectioners all over the world. It is superior in strength to many of the more expensive oils and thus is economical in use.

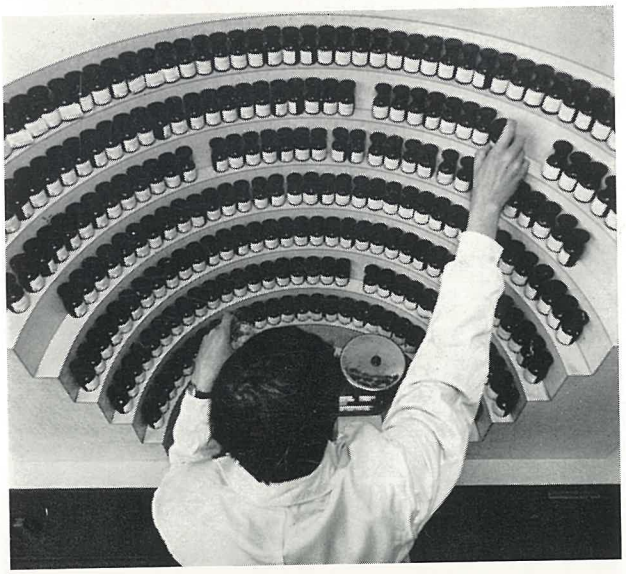
Peppermint Oil ABR No. 6

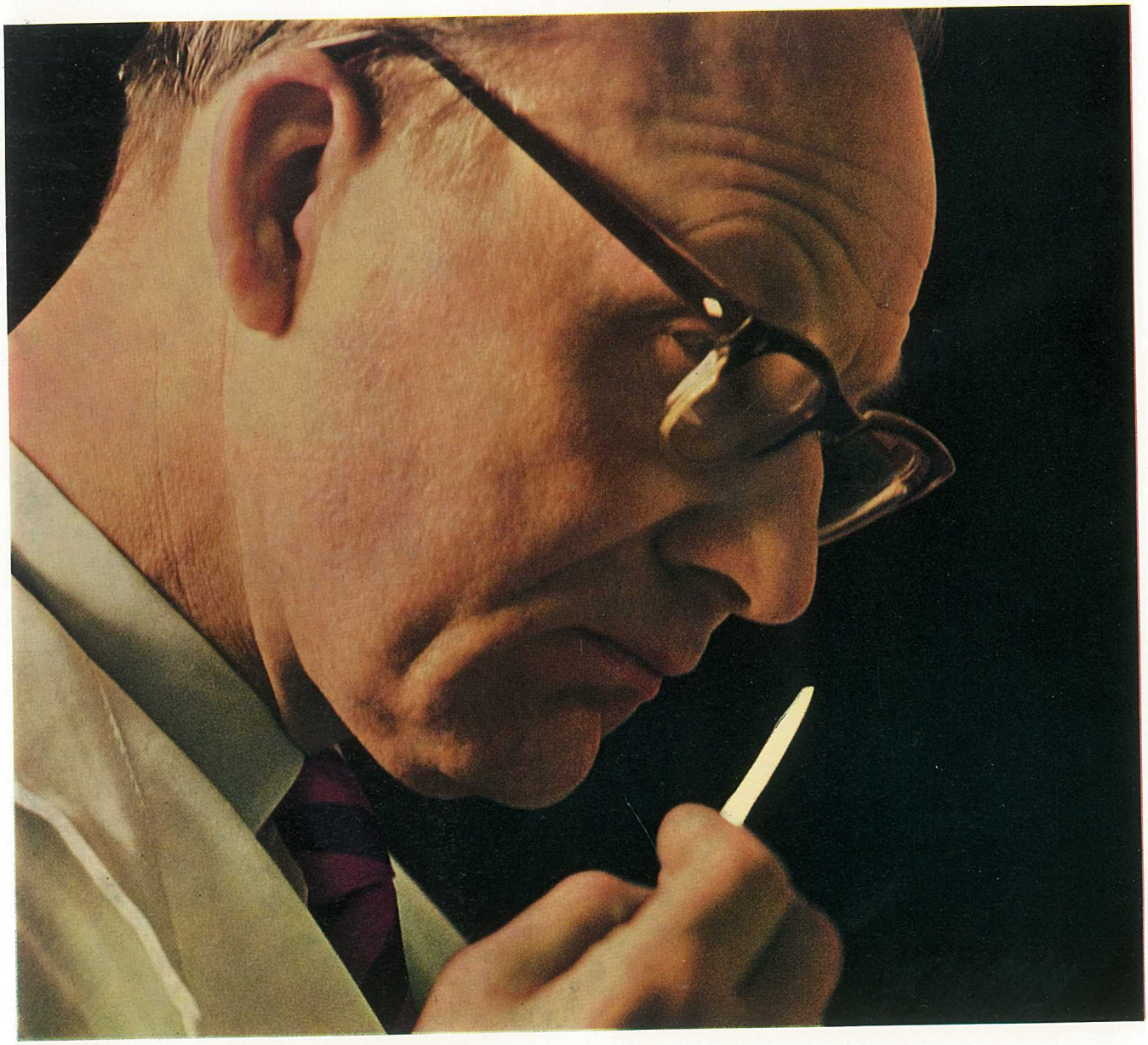
Has the pungent aroma of *mentha arvensis*, rounded off by the best American oil.

Stages in the production of English Distilled Peppermint Oil.

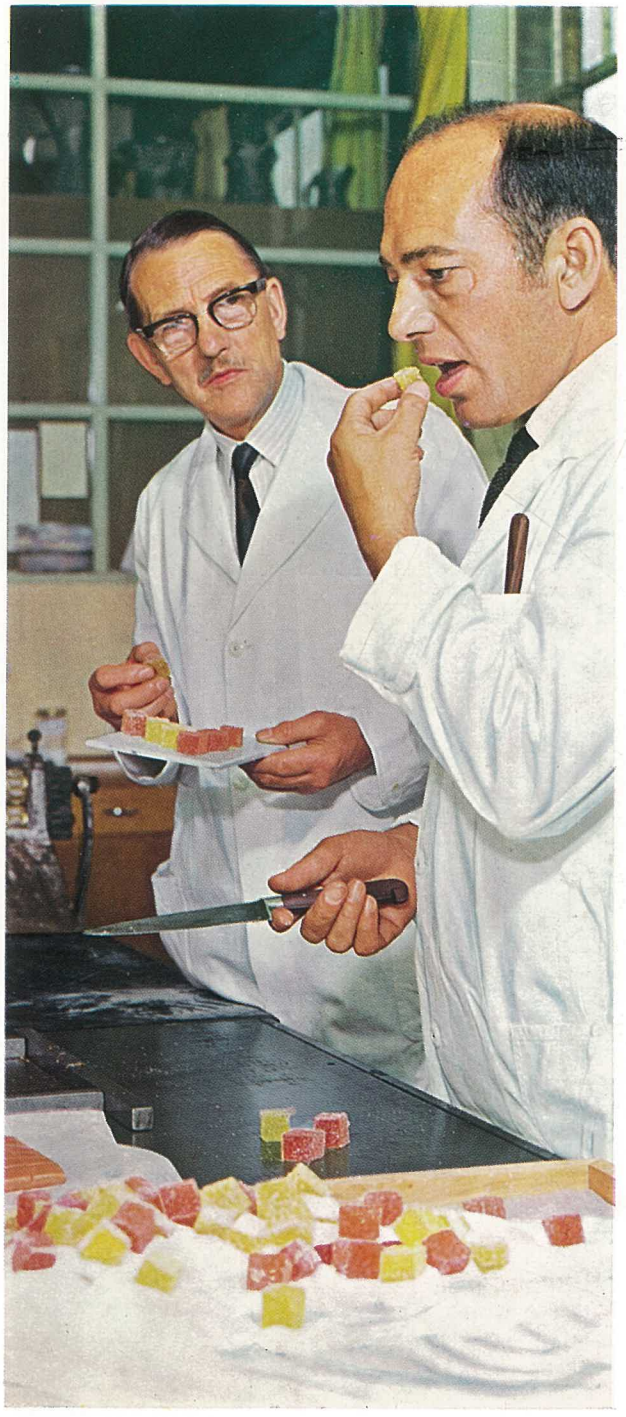






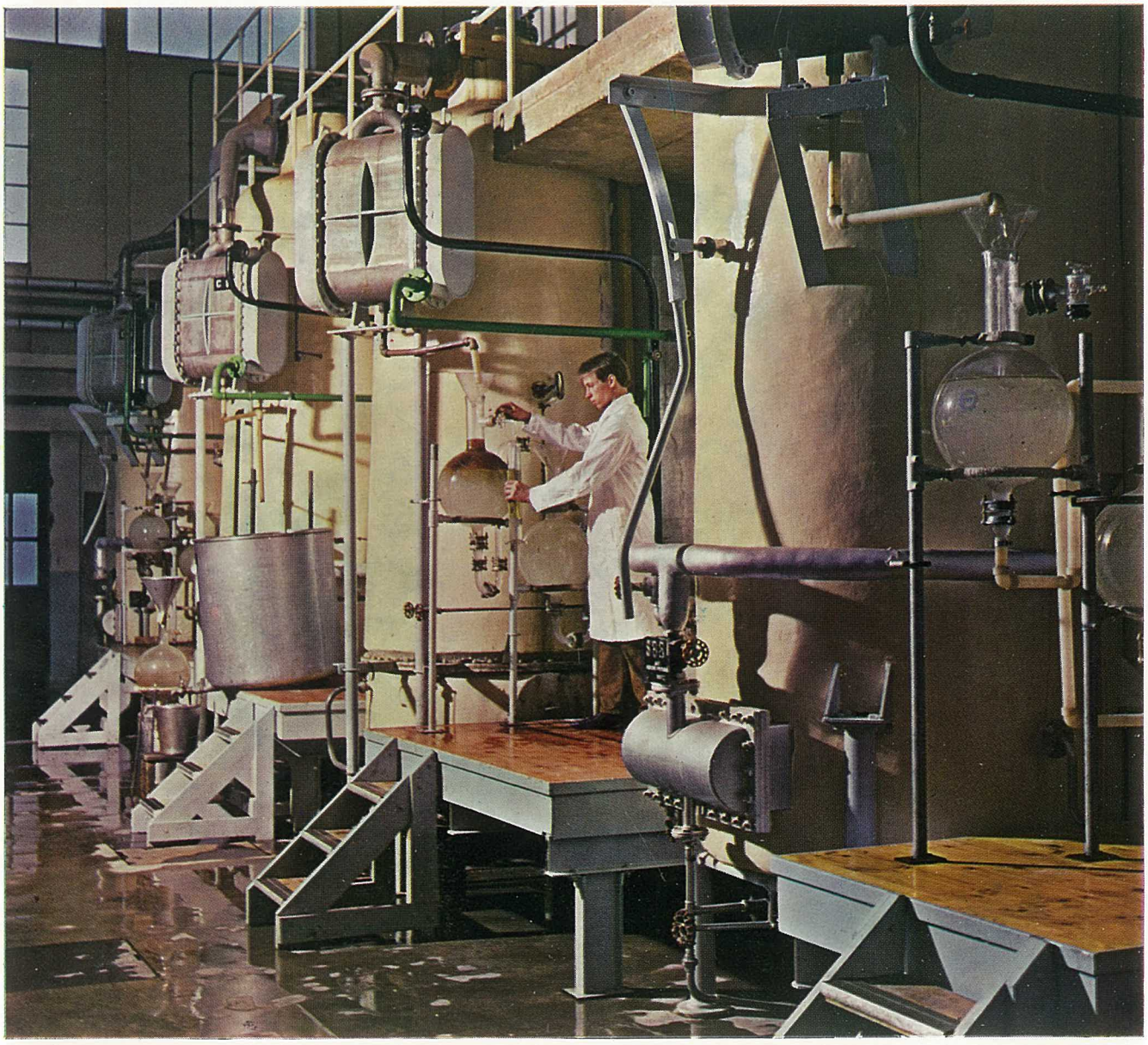


Notwithstanding the increasing sensitivity of modern analytical techniques, purely organoleptic evaluation plays an essential part in the preservation of quality standards. The ability to judge quality by this method is acquired only in a lifetime of practical experience.



In our applications laboratories facilities are maintained for the trial application of essential oils in the whole scope of end products: sugar confectionery, bakery and flour confectionery, and all kinds of foodstuffs – as well as in perfumery. In addition to affording means of evaluation by our own flavorists and perfumers, this enables us to sample our products in the actual media concerned.

A battery of steam stills at our Long Melford factory. A whole range of various types of steam and water stills is maintained, to provide for the differing requirements of the basic raw materials.



Our Complete Range

We give below a list of the main oils that constitute our range, together with definitions of the terms used to indicate the various gradations of quality. The grades other than English Distilled are from imported oils which have been rectified or purified by us to bring them to BP or BPC requirements – or to meet our own quality standards, *which are frequently higher.* Where imported oils are offered for direct re-sale, this is only after having been subjected to a stringent quality control procedure.

We are conscious of the fact that every oil that we sell, within its own particular quality bracket, is representative of our integrity as one of the largest flavour/perfumery houses in the world. It is therefore as a safeguard of our own good reputation that every possible measure is taken to preserve the highest quality standards commensurate with cost.

This range of oils is probably the most comprehensive offered by any single manufacturer and extends over the full scope of price and application.

Definitions

English Stafford Allens/English WJB Speciality
A range of oils of superlative quality distilled by us from imported plant materials or from crops grown on our own farms at Long Melford.

WJB Speciality
Of the oils imported by us, only those that are found to conform to the highest quality standards are offered under this designation.

'Super'/'Extra'/'Special'
Imported oils which do not attain the very high standards of the WJB Speciality oils, but which are of dependable quality and superior to many oils available at comparable prices.

'B'/'Excellent'
Imported oils of genuine character, which, whilst not attaining the excellence of our higher grades, are superior to many other oils available at similar price levels.

Trutype
Reconstituted oils based primarily on natural constituents. Most economical in use, and in almost all instances possessing the same strength and solubility as their true counterparts.

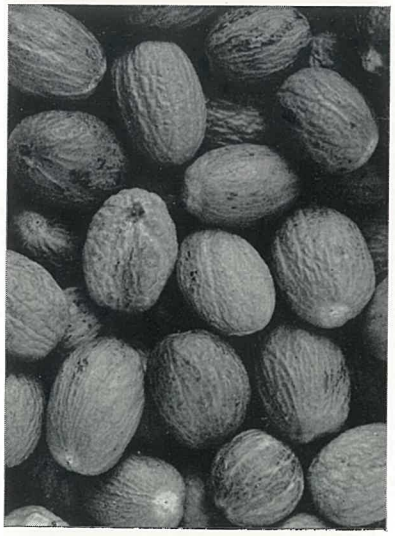
Compounded oils: SL numbers
We offer a vast range of compounded oils, many of which have been blended to meet specific requirements. We should be pleased to make recommendations from this range—which, for reasons of space, has not been included in this section in its entirety—or to consider the creation of special blends.

The selection of an oil for any given application of course depends to a large extent on price. With the fluctuation to which they are subject it is not possible for us to indicate prices in a publication such as this. However, reference can be made to our monthly market report and price list – a copy of which is provided in the inside back cover.

ALMOND BPC 1959 Foreign
ANISE BP China Star WJB Speciality
Trutype Confectioners
ASAFOETIDA English Stafford Allens
BALSAM
Peru English Stafford Allens
Tolu English Stafford Allens
BAY
BPC 1949 West Indian
Terpeneless Stafford Allens
BERGAMOT
BPC 1949
BPC 1949 WJB Speciality
BPC 1949 Finest
Super
'B'/Excellent
Trutype
Synthetic SL 2188
Terpeneless Stafford Allens
BOIS DE ROSE Brazilian
BUCHU
English Stafford Allens
CAJUPUT BPC
CALAMUS
Foreign
Indian OD
CANANGA
Java
Trutype
CARAWAY BPC
English Stafford Allens
English WJB Speciality
Foreign
CARDAMOM BPC 1949
English Stafford Allens
English WJB Speciality
Indian OD
Cardamom NF
Cardamom No.2

CASCARILLA
English Stafford Allens
CASSIA
English Stafford Allens
80/85% Cinnamic Aldehyde
'B'/Excellent 80/85% Cinnamic Aldehyde
Rectified. Free from lead
Trutype
CEDARWOOD
East African Rectified
East African English Rectified
CELERY SEED
English Stafford Allens
Foreign
Indian OD
CHAMOMILE
English Stafford Allens
CHENOPODIUM BPC 1959
CINNAMON BPC
English Stafford Allens
English WJB Speciality
Extra (Ceylon)
Super (SL 1225)
Special (W200)
CINNAMON A
CINNAMON BARK Trutype
CINNAMON LEAF Ceylon
CITRONELLA
Ceylon
BPC Formosa
Compound SL 1316
CLARY SAGE
English Stafford Allens
CLOVE
BP English Stafford Allens
BP English WJB Speciality
Rectified 87/88%
Blend 55
Blend 12A
Stem Rectified Zanzibar

COPAIBA BPC 1934
English Stafford Allens
CORIANDER BP
English Stafford Allens
Foreign
CUBEB BPC 1949
English Stafford Allens
CUMMIN BPC 1934
English Stafford Allens
English WJB Speciality
Indian
DILL BPC
English Stafford Allens
Foreign
EUCALYPTUS BP
80/85%
70/75%
FENNEL
BPC 1949 Sweet
GALBANUM
English Stafford Allens
Light Stafford Allens
GARLIC
English Stafford Allens
English WJB Speciality
'B'/Excellent
Foreign
No.2
GERANIUM
BPC 1959 Bourbon
BPC 1959 Bourbon WJB Speciality
Bourbon 'B'/Excellent
Trutype B
Trutype E
Terpeneless Stafford Allens
GINGER
English Stafford Allens
English WJB Speciality
'B'/Excellent
Indian OD
Terpeneless Stafford Allens



Nutmegs

Fennel

GRAPEFRUIT
WJB Speciality
Florida
West Indian

HOP English Stafford Allens
English No.14 Stafford Allens

JUNIPER BERRY BPC 1949
English Stafford Allens
English WJB Speciality
Foreign

LABDANUM
English Stafford Allens

LAVANDIN
20/22%
20/22% WJB Speciality

LAVENDER
BPC English Stafford Allens
BPC French Finest
BPC French WJB 40/42%
BPC French Mont Blanc 40/42%
BPC French Excellent 40/42%
BPC French Extra 38/40%
French Trutype SL 2186
Terpeneless Stafford Allens
Spike BPC Spanish WJB Speciality
Spike 'B'/Excellent
Spike Trutype

LEMON
BPC Sicilian WJB Speciality
BPC Sicilian Super
BPC 'B'/Excellent
BPC Select
BPC Sicilian Stafford Allens Sponge Pressed
BPC Sicilian Stafford Allens Finest Selected
W
Trutype
BPC Terpeneless Stafford Allens
BPC Terpeneless WJB Speciality
Terpeneless Extra
5 times concentrated Stafford Allens
5 times concentrated WJB
Terpeneless Trutype
Trutype 5 times concentrated

LEMONGRASS East Indian

LIME
Distilled West Indian WJB Speciality
Distilled West Indian Super
Distilled Blend 58
Distilled 'B'/Excellent
Terpeneless Stafford Allens
Terpeneless WJB Speciality
Trutype

MANDARIN
WJB Speciality
Super
'B'/Excellent
Sicilian Stafford Allens
Trutype

MENTHOL BP
Chinese Natural
Brazilian Natural

MYRRH English Stafford Allens

NEROLI
BPC 1949 Bigarade Extra WJB Speciality
Synthetic
Bigarade 49

NUTMEG BPC
English Stafford Allens East Indian
English Stafford Allens West Indian
English WJB Speciality East Indian
English WJB Speciality West Indian
East Indian 'B'/Excellent
Terpeneless BPC 1934

OLIBANUM
English Stafford Allens

ONION English Stafford Allens

OPOPONAX
English Stafford Allens

ORANGE
BPC 1954 Bitter WJB Speciality
Bitter Trutype
BPC Sweet WJB Speciality
BPC Sweet 'B'/Excellent
BPC Sweet Supara Stafford Allens
BPC Sweet Sicilian Stafford Allens
Sweet Terpeneless Stafford Allens
Sweet Terpeneless Extra
Sweet 5 times concentrated Stafford Allens
Sweet Florida concentrated 'I' 719
Sweet Trutype
BPC Sweet Florida
BPC Sweet West Indian

FRESHA ORANGE FLAVOUR SL 2127

VALENCIA SWEET ORANGE FLAVOUR SL 2144

SYNTHETIC TERPENELESS SWEET ORANGE SL 2146

ORIGANUM
BPC 1949
BPC 1949 WJB Speciality

ORRIS Concrete English Stafford Allens

PALMAROSA E.I

PARSLEY HERB
English Stafford Allens

PARSLEY SEED
English Stafford Allens

PATCHOULI
English Stafford Allens
Penang

PENNYROYAL BPC 1934

PEPPER
Black English Stafford Allens
English WJB Speciality
Indian

PEPPERMINT BP
American Black Leaf Natural Prime
American Black Leaf Natural B
American Black Leaf Rectified BB
American Black Leaf Soluble BBB
American Black Leaf M
American WJB Speciality
American Twice Rectified Supramint
American Red River Brand
English Stafford Allens
Mitcham Black WJB Speciality
Italian Santa Maria Natural K
Italian Santa Maria Rectified KK
Italian Santa Maria Soluble KKK
Italo Mitcham WJB Speciality
Italo Mitcham Twice Rectified
Alphamint
Mellomint 607
Mitcham No.16
Mitcham No.8B
Wayne County

PEPPERMINT
Brazilian Natural F
Brazilian Rectified FF
Chinese Dementholised D
Chinese Rectified DD
Blend 524
H5545
H7870
H2890
W1895
Mitcham Type 4138
ABR No.4 4233
ABR No.5 4234
ABR No.6 4235
State Brand 4316
Compounded No.8 4534
No. 4592
No. 5538
Italo Mitcham Type 5738
No. 6146
Compounded 6823
SL 2027 BP Characters
Trutype

PETITGRAIN
Paraguay
Terpeneless Stafford Allens

PIMENTO BERRY BPC 1949
English Stafford Allens
English WJB Speciality

PIMENTO
No.2 Fine
Extra
'B'/Excellent
Terpeneless Stafford Allens
Leaf

PINE
Needle
Pumilio BPC
Sylvestris

PINE Trutype
Pumilionis
Siberica
Sylvestris

ROSEMARY
BPC Spanish
BPC Spanish WJB Speciality
'B' /Excellent

ROSE OTTO
BPC 1949 Bulgarian WJB Speciality
BPC 1949 Anatolian WJB Speciality
BPC 1949 Virgin Speciality
Synthetic
Trutype

SAGE
English Stafford Allens
Spanish
Finest Dalmatian
Trutype (flavour like Dalmatian)

SANDALWOOD BPC 1949
English Stafford Allens
E.I (Mysore)
East Indian

SPEARMINT
BPC American Prime
BPC American WJB Speciality
American NF
'B'/Excellent
Terpeneless Stafford Allens

THYME
BPC 1949 Red
BPC 1949 Red 40% Phenols WJB Speciality
Rectified White
White 40% Phenols WJB Speciality

VALERIAN
Stafford Allens

VETIVERT
Bourbon
Bourbon WJB Speciality

YLANG YLANG
WJB Speciality
Premiere
'B'/Excellent
Fine
Trutype

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East London Tel 4690
Port Elizabeth Tel 45634

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Agents throughout the world

Market report and price list

This market report and price list is issued by us monthly and distributed widely in the United Kingdom and overseas. If you are not receiving copies we should be pleased to add your name to our mailing list. With the wide fluctuation in prices, intending purchasers are advised to consult a copy of the current list.