

A guide for the wine cellar or a practical treatise on the cultivation of the vine / [Frederick Charles Husenbeth].

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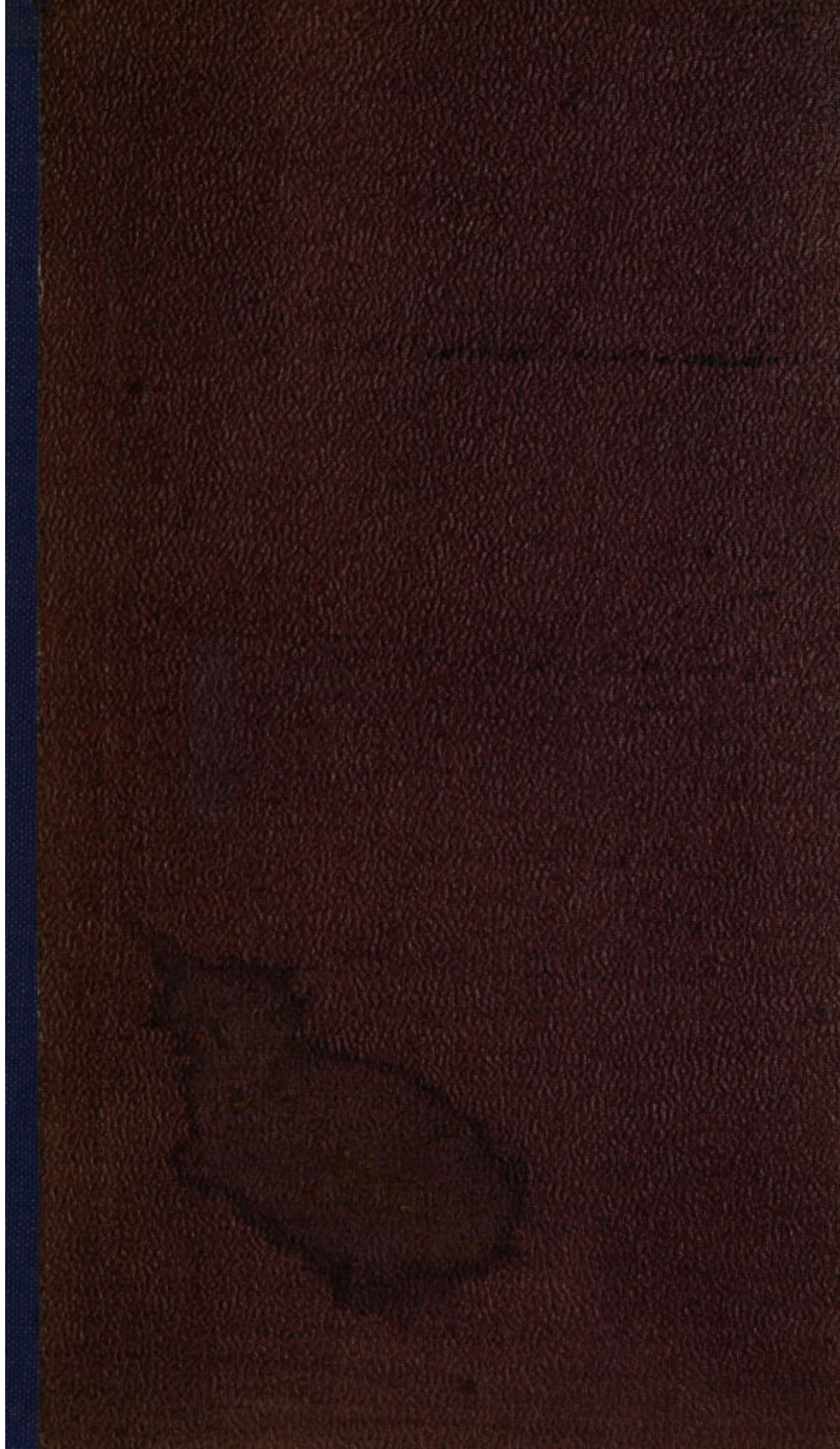
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A GUIDE
FOR
THE WINE CELLAR
OR A
PRACTICAL TREATISE
ON THE
CULTIVATION OF THE VINE,
AND
THE MANAGEMENT
OF THE
DIFFERENT WINES CONSUMED IN THIS COUNTRY.

BY
F. C. HUSENBETH,
WINE MERCHANT, BRISTOL.

Floriferis ut apes in saltibus omnia limant.
LUCRETIVS.

LONDON :
EFFINGHAM WILSON, ROYAL EXCHANGE.

1834.

A GUIDE

THE WINE CELLAR



CONTENTS

THE WINE CELLAR

BY THE EDITOR

F. C. HUSKINSON

BACON AND KINNEBROOK, PRINTERS,
MERCURY OFFICE, NORWICH.

P R E F A C E .

IN presenting to the public this short treatise on the cultivation of the vine in the wine districts, and the subsequent treatment of its produce, my sole desire is that it may prove useful both to the trader and the private wine holder.

In order to effect this, I have found it necessary to peruse the most esteemed authors, who, combining theory with practice, have made themselves useful to those nations whose chief employment and means of subsistence is the cultivation of the vine, the management of its fruit, and the subsequent treatment of the wine. I have found many of them such rigid adherents to the

words and acts of their old masters, that any improvement of the old system, either in the cultivation or in the making of the wine, was considered so great an inroad upon the practices of their forefathers, that from this class of writers little good could be expected. Others more versed in modern scientific and agricultural improvements, have fully and satisfactorily elucidated their theories by the most useful practical observations; and have been instrumental in setting aside deep-rooted prejudices, whereby the small as well as the opulent planters have greatly benefited, and have produced wine much more wholesome and more congenial to the palate of the consumer. A third class of writers in a hasty tour through the wine districts on the Continent, have found it convenient to make books for the amusement more than for the improvement of their readers. They give an account of the cultivation, aspect, soil, and produce of the vineyards, without the least practical knowledge, and too frequently with only such slight information as they can obtain at a dinner visit to a planter, and which they post upon the public with

little care for the correctness of the information so received.

I have endeavoured in my frequent continental tours to convince myself of the truth and value of the assertions of these different writers by inquiry of practical men, and by witnessing their operations. This has enabled me to found my observations in this treatise upon my own experience, without fatiguing my readers with theories which fail in practical application.

My observations on the plantation and on treatment of the vine, are confined to plantations for the production of wine for commerce, and my remarks on the treatment of wine are chiefly intended for this climate; and as these are founded on my own experience, I freely lay them before the public, who I hope will receive them with the same good feeling with which I have the honor to present them.

An elegantly written work, entitled *A History of Modern Wines*, having lately appeared, and its learned author and myself

agreeing word for word on some points, and giving nearly the same information, I owe it as a duty to myself to state, that my short treatise was written in the early part of 1832, and would have been published about that time, had not my manuscript been mislaid for a considerable time, in consequence of the confusion of a fire which broke out in the premises of a friend who had it at the time in his possession. Though, as a practical man, I differ on many material points from Mr. Cyrus Redding, yet I give that gentleman deserved credit for his elegant language and profound research into the best ancient and modern writers, as well as for the judicious information contained in his history.

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CHAPTER THE FIRST.

ON THE PLANTATION OF THE VINE, AND THE INFLUENCE OF THE SOIL AND CLIMATE ON ITS PRODUCE.

PREVIOUS to entering upon that part of the present treatise, which may be useful either to the wine merchant, or to the private wine holder, I shall give a concise account of the cultivation of the vine in the foreign plantations, from which we are supplied with the different sorts of wine in use in this country.

The vine was cultivated in the most remote ages, and its exhilarating produce has been celebrated at the banquets of the philosopher, the warrior, and the statesman. But much as good wine delighted our forefathers, it does not appear that their attention to the cultivation of the vine was so great as ours. The principal and best cultivated vineyards on the banks of the Rhine,

the Moselle, the Rhone, and the Loire, and in many other parts of the Continent, are those which the early hermits planted in the stony soil near their religious retreats. Many of them remained in the hands of their successors, the monks and friars, until the Vandal hands of the French revolutionists deprived them of their long and deservedly-held property, which they most industriously cultivated, more for the benefit of the poor than for their own enjoyment. No men are more slandered than those recluses: the terms of fat monks, hypocrites, and idle drones, are too uncharitably bestowed upon them, and by those even, who are with many of us indebted to them for bringing the most ungrateful stony soil into a proper state of cultivation, and civilizing its rude inhabitants. Why should we envy them the enjoyment of a glass of good wine, to which by human and divine right they certainly had a better title than the present possessors of their property? The study of chemistry has materially contributed towards improving the fruit by a judicious investigation of the nature of the soil, in which the vines are intended to be propagated. This selection of the soil, though ever so carefully attended to, will however depend in a great measure on the aspect, and likewise on the nature of the grape to be planted. To ripen fruit of any kind, a sunny

aspect is required. This is eagerly attended to by the cultivators of the vine, who notwithstanding all their care find themselves but too frequently disappointed, when the same grape, planted in the same soil, does not produce wine equally good with that of an adjoining vineyard. This is, if not entirely, at least in great measure owing to the benign influence of the sun, which is easily proved in the plantations on the fertile hillocks of Burgundy, which produce the Romanée and Chambertin Wines. The soil of those vineyards consists of an annual supply of fresh mould from the dissolution of the rocky banks, on the sides of which the most valuable vineyards are planted. Yet with the same vines, the same soil and the same care, it is a known fact that the wines from these vineyards differ very materially. This difference certainly depends on a slight variation in their aspect; and doubtless where there exists a still greater variation in the aspect as well as in the soil, it will be proportionably experienced by the cultivator, who gathers quite a different vintage at the foot of those hillocks, from what is produced in the more favoured aspect of his plantation. That as much depends on the manure as on the aspect of vineyards, is evident from the great quantity of wine produced in Burgundy by the labourers employed by the proprietors of the valuable wine

estates, to whom they give a certain portion of land generally situated at the foot of the fertile hillocks. Those labourers whose interest it is to obtain as much wine from their low plantations as will remunerate them for the labour they bestow on the more valuable plantations of their masters, fatten their portion of land with stable and other strong manure, which hardly ever fails of producing a great quantity of fruit, from which the *vin ordinaire* drunk in a great part of France is pressed, and which being only fit for early use, is generally sold very cheap. This sort of manure is only used where the more congenial manure for the Burgundy grape, for the want of a warmer sun, would be of little use, and would never produce that delicious wine which it does on the higher parts of the same gentle hills. The difference therefore between the most esteemed of the Burgundy wines and the *vin ordinaire*, arises from the more congenial soil aided by the beneficial sun in the former, and the strong manure in the latter.

This method is pursued in all the wine districts of France, and also on the banks of the rivers Rhine and Moselle. The different soils and aspects give a different flavour to the wine, and if the vineyards are planted in a sheltered situation and in good soil, they cannot fail in a favourable season

of producing good wine. It is from the soil and aspect and situation that the wine takes its name, and its value frequently depends on its name as much as on its intrinsic goodness. Thus for instance the Lafitte, Chateau Margaux and Latour clarets, bear generally a higher price than the other esteemed wines at Bordeaux. The Clos de Vougeot, the Romanée and Chambertin in Burgundy, the Sillery, Verzenay, and other first-rate wines in Champagne, and the Rüdesheimer, Steinberger, Johannesberger and Marcobruner on the banks of the Rhine.

The great improvement in wine in general of late years is chiefly, if not entirely, owing to the change that has taken place in agricultural labour, and in a judicious management of the soil and the plants. This change has nowhere operated more beneficially than on the banks of the Rhine, where at present wine is produced which in its vinous and saccharine substance surpasses many of the more favoured productions of a southern climate. These wines, which from the village of Hochheim are best known by the name of Hock, are grown in a district called Rheingau, about fifteen miles in extent, and differ very materially in their goodness. Here for the above distance the vineyards truly bespeak the neatness and care of the cultivators. The regu-

larity with which the vines are planted, the nicety observed in pruning them, and in the selection of good bearing wood, and the cleanliness of the soil in which they are reared and brought to perfection, are the admiration of travellers in the enchanting valley of the Rhine. It is well known that the epithet of *old* has been given to Hock wines, and by the name of Old Hock those wines have for ages been known and sold in the wine markets, and are to this day drunk by that name in foreign countries, but more particularly in warm climates, where they are administered medicinally as strengtheners after debilitating fevers. Much however as the planters formerly stored up their wines, and thus buried a great capital in their spacious cellars, they have of late years found it to their interest to change their plan, and to adopt the modern improvement in the plantations, as well as in the careful selection of their fruit, of which I shall speak hereafter.

It was formerly, and within my own recollection, the practice of the owners of the great wine estates on the banks of the Rhine, to house a series of vintages in their immense cellars, where it was no rare thing to see from 5 to 600 pieces, each containing from 8 to 900 imperial gallons of excellent wine, stored up for a favourable market.

The wealth of those proprietors consisted, as it does even to this day, in their vineyards, and their cellars were their banks. These wines were kept on speculation, and the prospect of an unfavourable vintage approaching, added a considerable per centage to their stock, on which occasion they announced a public sale of some of their vintages, which amply remunerated them for the loss they might sustain in the less valuable wine of the ensuing season. In like manner, on the prospect of a good vintage, a considerable decline in the price of their stored-up wines took place, when their public sales were chiefly confined to indifferent wines, in order to make room for the prospective good vintage. The wines sold upon these last occasions were generally purchased by innkeepers and wine-house keepers, whilst the best wines were purchased by merchants for private sale and exportation. Although these extensive cellars are not now so copiously filled as formerly, owing to the great losses which many of those noble families suffered during the French revolution, there are nevertheless at this time many cellars well filled with the choicest wines, to be met with on the banks of the Rhine, and more particularly in that favoured part of it called the Rheingau. These wines cannot, as formerly, count many past vintages, but they are of far greater goodness, and

command much higher prices at the annual sales than the former stored-up old wines would fetch, were they to be brought to any of the present sales. At these sales, which are announced in the public papers of the different foreign states where the vine does not prosper, a great concourse of strangers attend, and the best wines generally fetch very high prices, so that a piece of Johannesberger, Steinberger, Rüdesheimer, and Marco-bruner Hock wines, is very readily sold at from 4 to 500 pounds sterling for about 225 imperial gallons measure. This great alteration in the age and prices of those fine wines is entirely owing to the different mode of treatment of the grapes and of the plantations adopted within the last 25 or 30 years. The judicious selection of the plants, the properly maturing of the fruit, the seasonable pruning of the vines, and the careful management of their manure, have all contributed towards banishing the old system of the planters, by which a harsh and unpleasant wine was produced. The wine now vintaged in the same vineyards, which formerly produced that unpleasant old Hock, is not only more pleasing to the palate, but also far more wholesome. It contains more saccharine matter, more alcohol, and less of the astringent quality which the former old wines possessed. The wines thus managed develope their valuable

qualities much sooner than under the old system of cultivation, and become perfectly potable as soon as their rich saccharine matter is converted into alcohol or spirit, which in some of them takes place in three or four years, whilst in the more valuable, vintaged during a fine season, this change does not take place under seven or eight years.

Although very old Hock wines are neither esteemed nor introduced at public or private tables in Germany, the Hock or Rhenish wines must possess a superior strength to any other known wines, since in their natural state, unaided by brandy or by any other strong spirit, they are known to keep perfectly sound for nearly a century. The idea of some writers on wine that the Rhenish wines are light, must fall to the ground, unless they mistake the light Palatine wines for the superior Rhenish, which latter are seldom met with by travellers at inns, unless they particularly ask for them, and pay a price accordingly.

The genuine Rhenish or Hock wines are not only considered wholesome, owing to their diuretic qualities, but also to promote cheerfulness of mind; whereas wines mixed with ardent spirits gradually undermine the constitution, and ruin

that cheerfulness which is so great an ornament to its possessor, and so desirable in society. The cheerfulness of the Rhinelanders is proverbial, and is justly attributed to the influence of their wine on the constitution. It is a well known fact that the inhabitants of the hamlets and villages situated in the vallies here and there intersecting those fertile mountains, which bear the more valuable vine, cultivated by the villagers, live to a great age, which, as their food is very poor, consisting chiefly of flour provisions and vegetables, is attributed to the lighter sort of Rhenish wine which they raise in the more ungrateful soil at the foot of the mountains, and in the vallies which are deprived of the benign influence of the sun. These healthy labourers, like those who inhabit similar vallies in the banks of the rivers Moselle and Nahe, are an innocent race of men, and are heard by the navigators of those rivers singing their merry tunes in praise of their vines and their delightful produce.

The wines made on the valuable estates situated at Johannesberg, Steinberg, at Rüdesheim, Hochheim, and Marcobrunn, have hitherto kept up their character as first on the list of Rhenish wines ; but since the late improvements in the attention to the vine, the judicious selection of the fruit, the great

cleanliness observed in the plantations by keeping them free from weeds and insects, and watching the requisite ripeness of the fruit for the first vintage, have produced a great difference in the appearance of the vineyards, they have also produced a difference no less beneficial in the wine in situations formerly numbered among the second class. The wine now made on those estates, which have been cultivated on the improved plan, is now very little, if at all, inferior to that produced on the above-named more renowned plantations. Of this I have had a convincing proof in the wines of Hallgarten and *Ellfeld*, the *Alta Villa* of the *Romans*, where I have purchased wine of great strength and superior flavour of the vintage of 1822, and which is not inferior to the above named standard Hock wines. This great revolution in the cultivation of the vine has been chiefly the effect of the attention which of late has been paid to the science of chemistry; and the Rheingau will ever be indebted to my worthy friend, Mr. Heckler, of Ellfeld, the steward of Prince Metternich's estate on Johannesberg, for his persevering endeavours to improve the soil, and to eradicate gradually the old rooted prejudices of the cultivators, not only by word and example, but also by the free circulation of his well-written concise treatise on the cultivation of the vine in those

districts which surround his own valuable estate. This gentleman has produced on his own estate, at Ellfeld, a wine equal to any of which the Rheingau could boast, and has by assiduous attention to his vineyards conquered the prejudices of the vineyard-men of the old school. These having now been made sensible of the beneficial improvements, vie with each other to keep their vineyards in a proper state of cultivation.

The favourite grape in the Rheingau is the Riesling, besides which the Orleans, the Traminer, and the Kleinberger, are considered the most congenial to the soil, and to produce the best wine. The Riesling is an old standard grape of those districts, and is very justly preferred on account of its aromatic quality, and of the daily improving goodness of the wine made from it. It prospers in every soil that is free from saltpetre. The next most esteemed grape is the Orleans, which is almost exclusively cultivated on the beautiful mountains that line the shores of the Rhine, near the lively town of Rüdesheim. It thrives best in a rocky soil, and its wine is by many preferred to that of its neighbour Johannesberg. It is little inferior in its aroma, is more powerful, and commands equally good prices in the wine markets. The next grape here cultivated

is the small berried Traminer; it likes a marly soil, is full of sugar, and if mixed in the proportion of one part of its produce with two parts of the Riesling, it makes a wine full of aroma and strength, abounding with saccharine matter. There is a fourth favourite grape, which however is planted more for a table grape than either for its aroma or strength. It is the Kleinberger grape, and is usually planted on trellises to serve as fences to the more noble plantations, against cutting winds and severe weather, which frequently do great injury to the vines. Its grapes, like all other dessert fruit, make but an indifferent wine, when compared to the excellent wine produced from the Riesling, the Orleans, and the Traminer grapes.

CHAPTER THE SECOND.

ON THE EXPEDIENCY OF AN EARLY PURCHASE AFTER A GOOD VINTAGE.

IN order to obtain the most excellent wines after a superior vintage, either in France or Germany, an early purchase is highly to be recommended to the wine merchant. For the factors of both those fertile wine districts are constantly on the look out to secure the more valuable wines to themselves; and when they have once removed them from the cellars of the growers to their own, they seldom if ever come forth again in their original purity. The number of large and small factors being, during some seasons, greater than the number of casks of good wine made, it becomes of consequence to the foreign wine merchant, who greatly depends on the assurance of the travelling agents of many of those factors, to be circumspect in giving his orders. He must be guarded against

giving implicit credence to those men, many of whom are neither judges of the wine they praise, nor accredited by those respectable factors at Bordeaux, Coblenz, Mainz or Francfort, whose integrity as commercial men, and in many instances as considerable proprietors of some of the best wine estates, has for a series of years secured them against any imputations of dishonourable conduct. In the hands of such men of character and interest in the wine districts, the foreign wine merchant is perfectly secure. But that security fails with many of the travelling agents of small and obscure factors, who purchase a few casks of good wine of the growers in the more favoured districts, and mix them in France with the full-bodied fiery wines of the south, and thus impose them on the unguarded foreign merchant for the finest clarets, whilst on the banks of the Rhine they mix them with the low-priced Palatine wine, and ship them by the high sounding names of some of the best Rhenish wines, either in *aum* casks, or more frequently in one, two, or three dozen cases, with a flourishing seal on the corks. Thus they continue to impose their trash more conveniently on the private gentleman, should they fail in selling their cases to the trade, who being aware of the impositions practised by these pretended men of consequence, have of

late years set their faces against them, and left their numerous cases of bad wine to groan in the London docks, or in the provincial bonded cellars. The impositions of some of these petty factors and their impertinent agents or travellers have even been carried to such a height, that they have sent wine to some of the trade, as well as to private gentlemen of this country without orders, and have drawn on them for the amount. These daring attempts to defraud the unguarded trader or private consumer have succeeded in some instances, but have been detected by many, who begin to know that in order to obtain good wine, and to have justice done them, it is necessary to apply at once to respectable foreign houses, who are above sending travelling agents to this or any other country to palm bad wine on their correspondents.

The improvements which within the last twenty years have been made in the Rhenish wines, and the change which has taken place in the political system of the Rhenish provinces, have in some measure operated most unfavourably on the sales of the better sorts of the Hock wines, which are exclusively produced in the Rheingau. His Majesty the King of Prussia has obtained a valuable portion of the Rhenish provinces, in which many

situations produce a tolerably fair wine; and the Prussian Government, in order to encourage its newly-acquired subjects, has found it necessary to lay a heavy duty on all wines imported from the upper provinces. This having given an extraordinary stimulus to the natural industry of his Rhinelanders, every spot that could grow a few vines is now anxiously cultivated, and an immense increase of wine is the result. But as these vines are planted in the romantic valley of the Lower Rhine, between and on the rocky projections of the high mountains, which line both the shores of the Rhine, from Bingen where the Prussian States begin, as far as Bonn, and leave but a narrow channel for that noble river, these numerous plantations that delight the eye of the traveller, are from the proximity of the collateral mountains deprived of the influence of the sun, which for the production of good wine is so essentially necessary. These wines, such as they are, find their way into foreign countries, and are sold for Hock wines by many houses at much lower prices than the real sound and excellent Hock grown in the Rheingau, would fetch during the most favourable and most abundant vintage.

In the great improvements in the cultivation of the white wines, the growers of the red or black

grape have also participated, and an excellent red wine is now made from the Burgundy grape, planted at Asmanshausen on the Rhine, at Ingelheim, near Mainz, and near the river Aar. Of these red wines, that grown at Asmanshausen, near Rüdesheim, is very little, if at all, inferior to the best Burgundy, and will keep good in foreign climates much longer than the Burgundy wine. This change in the management of those wines has taken place, by a due attention to the fermentation, and to the pressure of the fermented grapes or murk into must. This attention has also most materially operated upon the French red wines. The French planters gather their vintage now considerably later than they did formerly; they select their best fruit for their best wine, shorten the period of the fermentation of the smashed grape in their great *cuves* or fermenting tubs, and produce in Burgundy, and in the environs of Bordeaux, and indeed through the greatest part of the Southern provinces, a full fruity wine with the finest aroma.

Our favourite Port wine has not been forgotten during the advance of chemical knowledge. It has no longer that astringent harshness which it formerly possessed in so high a degree, that to many it could only be offered medicinally, but could

never be taken by them with that pleasure with which they now use it in its improved state. It now retains the saccharine qualities of good wine, and its gradually developing alcohol renders it not only more palatable to the real connoisseur of good wine, but also more wholesome to our constitutions. As the colour of red wines is an extract of the woody essence of the skeleton, and of the skins of the berries of the red or black grape, and is obtained by setting the smashed fruit to ferment in great vats kept for that purpose by the planters, much care is necessary in watching this process, so as not to permit the fermentation to rise to such a degree of heat as to destroy the saccharine matter, and so powerfully to extract the woody substance of the grape, as to render the wine rough and unwholesome, and highly injurious to those who labour under rheumatic and gouty affections. Formerly in the treatment of these wines the fermentation was permitted to last frequently to such a time, as even to work upon the seed kernels of the grape, whose astringent qualities, according to Sir Humphrey Davy, have an excellent effect when applied to the gelatine of the ox hide in making leather, but will never in my opinion produce a good effect upon the health of those who drink wine so strongly astringent.

All wines, white or red, propagated in a congenial soil, make progress during a fine season towards perfection, and never fail of being good. Here the judicious planter rests, and to this point he directs his operations, while the less careful planter, prompted by avarice, extends his plantations to soils, where corn and many productions for the use of his kitchen would have remunerated him much better than wine. This bad taste in many of the planters in the most favoured aspects, has often a bad effect upon the sales of the better sort of wine vintaged on the gradually rising hillocks of the same district and name. This produce of a cold unnatural soil, being deprived of the necessary combinations for forming good and wholesome wine, namely, aroma, saccharine matter, and alcohol, will ever remain a cold, harsh, and unwholesome beverage; but as it bears the name of a good wine district, the avaricious planter either mixes it with his best wines, or leaves that office to the factor, who purchases the whole of his vintage at a convenient price, and thus brings the good as well as the bad wine into the market, by the well known name of the plantation that has produced both. They differ however materially, as the one is planted in a congenial soil, and its fruit matured by the sun, whilst

the other, although vintaged at the foot of the same mountain, being deprived of the rays of the sun, is chilled upon soil totally unfit for vine plants, which never prosper better than on rising hilly ground, verifying the old saying, *Bacchus amat colles*. It would be far more to the interest and surely far more to the credit of those planters, were they to destroy such unnatural plantations, and raise as formerly, good corn, grass, and vegetables for culinary purposes on the same land. Thus they would be furnished with the necessaries of life, which as all their land is covered with the vine, they are obliged now to purchase with ready money from other provinces, as well as not unfrequently the manure for their more valuable plantations. The want of corn in those wine districts produces a want of straw, which article they use for ties in their vineyards, and for litter in their cow houses, in order to produce good manure for their plantations. It is therefore evident that by cultivating their corn and pasture land, for the increase of an article of luxury, they destroy their domestic comforts by paying away their ready cash for articles of the greatest necessity to foreign provinces, whilst one or two bad seasons impoverish them to such a degree as to oblige them to borrow money from the factors, to be repaid them with good interest at the next more prosperous vintage. This

injudicious conduct of some of the less opulent planters, produced principally by avarice, not only operates fatally on their domestic comforts, but also on their plantations, which not receiving their annual supply and nourishment of good manure, are equally impoverished with their owner, so that both must ultimately fall.

The Rhinelander is so passionately fond of propagating the vine, that wherever he can find a sunny spot, if even on the shelf of the steepest rock, he contrives to plant his favourite. In order to effect this securely, he procures a sufficient number of vine baskets manufactured in a rude, but solid manner. These he ties together, fills them with good mould, plants his vines in them, and thus leaves them on their rocky bed to fulfil his fond hopes of filling his goblet in a few years with excellent wine. These baskets receiving annually a supply of good manure, ultimately decay, and leave the vines firmly fixed to their rocky bed, where in small vineyards they decorate the brows of those charming hills that line the banks of the interesting valley of the Rhine for upwards of fifty leagues, and present to the navigator of that river a pleasing contrast to the ivy-clad ruins of the numerous baronial castles that crown the summits of its fertile mountains.

The fondness of the Rhinelander for the propagation of the vine has by many been attributed to his predilection for its exhilarating juice. How far this is correct I will not attempt to decide; I can only judge the inhabitants of the shores of the Rhine by the frequent visits which I am in the habit of paying them, where mixing with those very men accused of drinking freely, I have ever found them, with the exception of some of the lower order, a most intelligent and sober class of men, extremely affable, communicative, and hospitable. The Rhenish wines certainly possess an exhilarating power beyond any others, and it is very likely that the cheerfulness of these people in their public places of amusement, as well as in private society, has been hastily judged of to their disadvantage by authors who as hastily travel over a great part of the Continent. Such men, without taking sufficient time for the study of men and manners, swell their books with superficial observations and inventions of their own, to amuse their readers at home and fill their heads with fictions; but they can never long mislead the circumspect traveller, who judging from facts that come under his own observation, will treat such tales as they merit, and raise his voice in defence of a slandered people.

The Rhenish wines have ever been considered very conducive to health, and particularly as great strengtheners after sickness. On this account they are in great demand all over the globe, and the better sorts are sold at great prices by the growers on the spot. Their natural strength and durability is such as not to require the least addition of spirits to keep them, and they are known not to become deteriorated in strength and flavour in the most remote parts of the globe, where they keep good much longer than any other wines.

The Moselle wines are also considered very wholesome, but as they contain much less saccharine matter, and still less alcohol than the Rhine wine, they are of course a light wine, and should be drunk before their saccharine principle is converted into spirit, in which case they become hard, and frequently turn acid. The best sorts of these wines in their sound state have a most agreeable sweetness, for which they are much esteemed. Early writers speak of them with rapture, especially Decius Magnus Ausonius, in the year 379, who appears to have delighted in their taste at all times, by saying: *Vinum Mosellenum, est omni tempore sanum.* These wines are as exhilarating as the Rhenish, and the great quantity

produced in some situations of less note, makes them remarkably cheap. This is certainly a temptation which the mechanics and the lower orders cannot withstand, and they drink freely, and not unfrequently to so great an excess, that a Bacchanalian brawl sends them to their homes with broken heads. This abuse of the gifts of Providence rose formerly to such a height among the German boors, that Martin Luther, the innovating German friar, though he is recorded to have liked the bottle so well himself, called that passion the devil of Germany that would never be killed. If, however, that noted reformer could at the present day appear amongst his countrymen, he might be pleased to see that devil, though not quite killed, yet greatly weakened through the influence of education, and the great change in the morals of the lower orders in all countries, compared with the rude conduct of men in his days, of which Martin Luther has left us most convincing proofs in his own writings. Although the peasants, as I have already observed, still indulge in their well-filled cups, this evil is by no means general, but confined to a few districts in the Palatinate, and on the banks of the Moselle, where the more abundant growth of lighter and cheap wine, invites the lower class to transgress the bounds of sobriety.

CHAPTER THE THIRD.

ON THE SELECTION OF THE GRAPES FOR WINE FOR
GENERAL TRADE. OBSERVATIONS ON TRAVELLERS IN
THE WINE TRADE, &c. &c.

IN the most esteemed wine districts in Europe, many of which I have frequently occasion to visit, it is usual to gather the choicest and ripest fruit throughout the whole vineyard first, for superior wine, and to make a second gathering sometime later from the same vines, when the grapes left after the first gathering are become perfectly ripe ; and it happens frequently that scientific and experienced cultivators, finding their fruit ripening slowly and irregularly, make a third gathering, all from the same plant. The wine pressed from these grapes differs in quality in proportion to the ripeness of the fruit at the different periods of gathering. The first selection having become perfectly ripe, through the powerful influence of a hot summer's sun, is consequently full of aroma and sugar, and will work

well towards its perfection during the various fermentations it has to undergo. Its saccharine matter changing into alcohol, will establish its durability and develope its aroma. The grapes of the second and third gathering having had less of the influence of the sun during their growth, and more especially during their ripening, fall short of the first in quality, and the wine made from this fruit, although still a good wine, is less durable, and fails in that flavour which in the wine markets makes the first gathering so much more valuable.

This improved treatment of the vine and its fruit, is attended with greater care and cost than the old method was, when they used to gather the ripe and unripe fruit together, and make but one sort of wine of the whole. But the first gathering having turned out so exquisitely good, the high price which the planter now obtains for such wine, amply remunerates him for his care and cost during the growth and vintage. All this however depending on the weather during the ripening time, the planter, after having expended heavy sums for manure and labour in his vineyards, has all his bright hopes and fair prospects of an ample remuneration blighted after all, when bad weather sets in during the most critical month of August, when the saccharine qualities in the grapes sweeten their vinous sub-

stance, soften the skins, and prepare them for the press and cask. Whenever the fruit loses the influence of the sun's rays during the months of July and August, whenever much rain and cold nights interrupt the progress of ripening grapes towards that perfection, which is so essentially necessary for the production of good wine, the planter is at once deprived not only of a due profit for his outlay on his plantations, which should begin immediately after the gathering of the ripe grapes, and continue periodically until the next vintage, but also of the interest which his estate ought to bear him. Upon such occasions many of the smaller proprietors experience great distress, and they are often ruined by a succession of such bad vintages, whilst the more opulent proprietor feels his disappointment in a less degree, and frequently escapes uninjured, by having possessed the means of storing up his preceding valuable vintages, which he is now sure of bringing to a good market; and he often sells it at nearly double the price it would have fetched, had the season been favourable.

The wine factors, who generally reside near the wine estates, and are many of them considerable proprietors themselves, are always prepared upon such occasions to secure the old and good wines for trade, and give a liberal price for them. These

factors also, especially in Burgundy, are considerable holders of good wine, which they lay up during a prosperous season, partly from the fruit of their own vineyards, and partly from the ripe and well selected fruit which they purchase of their neighbours. These choice wines they keep for their best customers the wine merchants, from whom they obtain such liberal and remunerating prices, that they have no occasion to subdivide their usual packages in order to oblige a private gentleman, who on his travels is desirous of securing a small cask or case of the best wine of the country through which he travels. The wine usually sold to such applicants, although good, is not of the first growth, that being sold unmixed and undivided to the wine merchant. It would indeed not only be unfair, but also an act of great injustice, and most dishonourable in a respectable factor, were he to sell any of his best wines to private gentlemen, when he is sure of receiving remunerating prices from the wine merchant, whose livelihood depends on his sales to private consumers. This accounts for wine purchased by private gentlemen on their travels, turning out quite different from what they expected. The first cost of such wines, with the charges of transport, and the want of knowledge how to keep them until they are fit for bottling, will sooner or later convince them, that when they purchase from their

usual respectable tradesman at home, they not only encourage trade, but pay less for good wine than what their imported wine would cost them, and they have an opportunity of returning the wine, should it not please them or their friends.

During a good vintage no bad wine is made, but yet the soil and aspect of the vineyards produce, as already observed, wines of several degrees of goodness in such a season. The first growth is generally retained by the respectable factors for the supply of their valuable customers, whilst the second and third growth is sold by them to small factors, from whose houses those numerous agents and travellers in foreign countries receive their agencies, and sell such second or third rate wine, without distinction either to the trade or to private gentlemen, as first growth. These agencies, of whom those who travel for French houses are the most numerous, the most importunate, and the most unfair in their dealings, are for the greater part entirely ignorant of the nature, growth, and quality of the wines in their long price lists; and all they have to care for is, to get rid of as much as they can, in order to swell their commissions. In this manner they take orders for the shipment of either brandy or wine, and should the prices in the wine districts remain steady, the order is generally executed with

those above-named productions; but should the prices advance in those wine districts, the order is forgotten. This I have myself experienced, and therefore speak feelingly.

This abuse has of late years also been practised by the Rhenish travellers, who, instead of importing real Hock and Moselle wine, have imposed the cheaper Palatines wines on many of the wine merchants, but more generally on private gentlemen, at high prices, and with high-sounding names, as the best Hocks and Moselles, whilst they are known to have sold the same wines by their own Palatine names to others at very low prices. Having already alluded to these impositions, I need only here observe, that it would certainly be of benefit to the trade in general, as well as a security against fraud to the private importer, if the importation in cases were prohibited by law, with the exception of Champagne, and if not less than a hogshead were allowed to be imported by any one. This would in great measure cure the evil, and would cause trade to return into its former respectable channel, would increase confidence in the respectable foreign houses, and would diminish the number of imposing travellers, who now infest every town, village, and private gentleman's country residence, and who thus disgrace the more respectable foreign factors, and injure the fair trader of this country.

CHAPTER THE FOURTH.

USEFUL HINTS TO THE WINE MERCHANT, AS WELL AS TO THE PRIVATE WINE HOLDER.

HAVING dedicated the preceding chapters to the description of the various modes of cultivating the vine, and of the management of its fruit, before I describe the different fermentations which the wine has to undergo, I shall here make a few observations upon the cellars in which wine ought to be kept. I have often observed that the wine cellar and its cleanliness is a secondary consideration with many, but as it is one of the principal points to which wine holders ought to direct their attention, I will endeavour in this chapter to point out the best state in which wine cellars ought to be kept, in order to preserve wine in good condition. As however on this, as well as many other subjects, opinion often prevails over real experience, although I may greatly differ from some of my readers in opinion, as well as in long followed practice, I shall never-

theless freely give my opinion, founded upon experience, and leave my reader either to adopt my plan, or to follow his own.

In order to keep wine in wood, as well as in bottle, in a healthy condition, the cellars should be lofty, and neither too damp nor too dry. They should be arched and airy, so as to disperse the gaseous vapours that continually and imperceptibly escape from wine kept in wood as well as in bottle, and also those deadly damps which exude from the stone floors and walls of the building. Nothing is more injurious to wine than low damp cellars, for the various kinds of effluvia that continually hover over the wine vessels, not only prevent the progress towards perfection, but too frequently injure the quality of good wine.

If a cellar be kept too dry, the staves of the casks become dry, and permit the spirit or alcohol of the wine to escape ; but if, on the contrary, it be kept too damp, the staves become mouldy, and communicate a musty, disagreeable flavour to the wine, which in a short time operates fatally upon its vinous substance. Wine in bottle is equally affected by dampness, and particularly so when removed from a dry and airy cellar, to a low and

damp situation. In this case, the wine merchant is but too often unjustly blamed by his customers, and accused of having sent them wine that would not keep good, when at the same time the fault or cause of its deteriorating lies in the bad cellar in which it is housed, after leaving the properly-managed cellar of the wine merchant.

All impurities ought to be carefully banished from the wine cellar. These consist of decayed wood, such as wine-horses or stages, old musty sawdust that has been in use until the small insect that settles in it completely enlivens the whole, so as to bring it to a state of decomposition. All those webby festoons of vegetable origin, that in private gentlemen's cellars, as well as in those of the first wine merchants, are considered by their possessors as most desirable ornaments, and as a sure indication of a store of good old wine, are nothing less than disgusting and abominable receptacles of impurities, and of insects that delight to propagate in those gloomy forests of web, where ultimately they find their grave, and leave an effluvia highly detrimental to the wine, whether in wood or in bottle. Wherever there is life, death must follow, and although the decomposition of the small animalculæ that inhabit those webs may be considered of little consequence, yet the mortality and consequent

decomposition of the inhabitants of those webby cells bring no good to the wine, and the whole should be destroyed as a most useless and highly injurious ornament. A good thick coat of white lime bestowed annually upon wine cellars, will prove an excellent and wholesome substitute to those webby nurseries of impurity.

As the damp arising from the floors of cellars greatly affect the wine-horses or stages upon which the casks are housed, it is highly to be recommended to have these at least two feet above the stone floor, whereby a greater current of air is secured, and the staves of the casks are kept free from infection, which if communicated to the wine would completely ruin it. Cellars situated under public streets, or contiguous to them, or near manufactories where there is much hammering, are hurtful to wines in general, but more particularly to the delicate wines of France, such as Champagne, Burgundy, Sauterne, Barsac, and all the claret wines of different denominations. For, owing to the repeated agitation of the wine, caused by the passing of heavy waggons, or by the sound of working tools, the deposit in cask, as well as in bottle, is brought into action, and the wine is deteriorated in quality.

TEMPERATURE OF THE CELLAR.

On this subject there are so many absurd and ridiculous opinions, that to enumerate them would fill these pages with useless matter. All wine cellars ought to have an even temperature, and they ought never to be exposed to the sudden changes of the weather, to which this country is so much more exposed than any of the continental states. That such changes are highly injurious, every holder of wine in ever so small a quantity must have experienced by the removal of Port wine in cold weather. In recommending cellars to be kept in an even temperature, I do not mean however to deprive them of wholesome air; for a gentle ventilation during serene and open weather, when there is no violent agitation in the air, is not only conducive to the proper keeping of wine, but highly necessary to dispel those damp and foul vapours which constantly arise in even the driest of underground cellars, and affect wine in wood as well as in bottle. This ventilation may be effected without injury or change of the even temperature so desirable for wine cellars, and without causing a thorough draught, which, with the exception of Champagne, is detrimental to all wines. In a fine open day, the air-holes of cellars may be laid open for two or three hours, about the middle of the day, to let

wholesome atmospheric air replace the foul and confined air that will then escape.

All wines that are strengthened with ardent spirits, in order to make them keep in foreign climates, require to be kept in a warmer temperature than the more pure wines of France and Germany, and though 54 degrees of Fahrenheit's thermometer is the height generally recommended for the highly brandied wines of Portugal and Spain, 48 will suffice for French and German wines, and also for some of the more valuable of the Italian wines. To nurse wines by unnatural heat is extremely hurtful to them, and where stoves are employed to force green wines into a fit state for early use, it often happens that decomposition takes place where ripeness is expected. Wherever such a practice exists, it is a true mark of ignorance, and of a species of avarice in which, should the speculator succeed in his scheme of ripening green and low-priced wines for his market, he will soon find his error, by having deceived his friends to the loss of his trade. Stoves are often used in the cellars of private gentlemen, with a view to assist wine to become mellow, and of superior goodness. This is a notion as erroneous as if they were to fill their cellars with ice or snow to effect a similar change.

If such wine has not been sound-bodied, and matured in wood previous to being bottled, no art will effect those revolutions contemplated, and the greatest lovers of heat, such as the Madeira wines, will never benefit by an unnatural warmth, especially that produced by stove heat. The operation of nature in bottled wines kept in an even temperature, will effect more than the art of man can devise, and the period required for their becoming ripe depends on their sugar having changed into alcohol, and the latter having communicated its effect to the whole body of the wine. Spanish and Portuguese wines, as well as all the others that are brandied in order to make them fit for exportation, will require, as already observed, a warmer temperature than the more pure and naturally strong wines, and this attention they receive by being imbedded in saw-dust when bottled, whereas French and German wines will do better by being simply packed away upon laths. Nothing promotes decomposition in Burgundy, Champagne, Hermitage, Cote Rotie, and St. Parray, sooner than their being too warmly nursed in saw-dust, and in close warm cellars. Clarets and Hock wines do not dislike a moderate heat, but do better in a cool temperature.

CHAPTER THE FIFTH.

ON WINE CASKS, STAVES, AND BUNGS.

As much depends on the casks used for wine, and on the bungs that secure them against the influence of atmospheric air, I consider that by the following observations I shall render considerable service.

It is true that this climate not being congenial to the growth of grapes for making good wine, we are dependent for our wines on foreign countries, which are imported in vessels properly seasoned, and it may therefore be said that observations on the seasoning of casks are unnecessary. To this I answer, that although we have a right to expect the above to be the case, yet it proves frequently the contrary. When it is so, racking becomes highly necessary, and for this purpose sweet casks are indispensable. All new vessels of this kind are required to be made of well-selected staves, free from predominating sap. They must also be free

from any musty smell, and must be well dried in an open current of air, before they are manufactured into wine casks. When the cask is finished, a small quantity of unslaked lime ought to be introduced through the bung-hole with a quart of clean water. The bung ought then to be put tight into the cask, and about an hour after, a gallon more of water should be added to the former, and the cask well rolled to and fro, after which the lime water may be emptied, and the cask well rinsed with clean water. This will free the vessel from all woody taste, and fit it for the reception of the most delicate wine, especially if one or two glasses of good brandy be poured into it previous to the wine. In the absence of brandy, a pint of any white wine poured into the cask boiling hot, will be equally effective.

This treatment may most successfully be applied to casks just emptied, and will preserve them perfectly sweet for a length of time, especially if a match about the length of an inch be burnt in them. Such casks, after racking, should be carefully cleared of all the sediments of the wine, and of all tartareous incrustations on the inside of the staves. This mode is also an excellent remedy for sweetening casks that have become musty and foul through neglect. The bungs generally require full as much

attention as the staves and casks themselves. It too often happens that wine turns sour, although the cask has been filled up to the bung. As this is owing to the rushing in of atmospheric air, through some aperture, it is found nine times out of ten to have happened through the badness of the bungs. It thus takes possession of the space before occupied by the carbonic gas, escaped from the wine.

The healthiness of the wine depending in a great measure on the soundness of the bungs, they are soaked in the wine countries for several days in strong spirits, by which means the astringent part of the wood is extracted, and they are rendered fit for the most delicate wines. On all occasions they ought to be provided with clean linen, so as to secure them against the rush of atmospheric air. I have already observed how much the shaking of waggons, and the hammering in neighbouring manufactories disturb and injure wine; and this brings me to the description of a particular sort of bung, which in wine countries, but more particularly in Germany is in general use, and is found to be effectual in preventing the agitation which is unavoidable in starting the small flat bungs in use in our wine cellars. It is a common but yet an unavoidable practice with our cellar-

men to use floggers of heavy wood in order to force out the bungs, whereby the wine is as much disturbed in its progress towards perfection, as the staves of the casks are from which they force the bungs. This operation is necessarily repeated as often as the wine requires the attention of filling up, or of seeing that no harm befalls it; and this in the more delicate wines ought to take place at least once in eight or ten days. Wine so disturbed in casks, seldom settles well in bottle, for the yeasty sediment, being, through that hammering, again incorporated with the purer wine, not only communicates a bad flavour to it, but is seldom completely forced down again, and generally appears in bottle in small flakes, and renders it unsightly and unfit for sale. In order to remedy this evil, I have found it useful to have a certain number of bungs turned on purpose, of *lignum vitæ*, or some other hard and tasteless wood about five or six inches long, tapering downwards to the part that rests in the wine. These bungs I have found most effectual in preventing the maladies that so often affect delicate wines, and I invariably use them in my bonded cellars, as well as in those of duty-paid wine, and only make use of the usual small bungs in the transport of wine from one place to another, where the long bungs would be inconvenient, and would give the carriers too easy access to plunder.

The benefit to the wine merchant from the use of this long bung is very great; for the gentlest knock against the side of the bung will start it, so that it can be easily removed by the hand, and an equally gentle knock will secure it again in its place. By this operation the wine remains undisturbed, and the staves of the cask uninjured, for it is but too often the case that owing to the violence necessary to start the common bung, the seams of the staves are opened, which allowing the carbonic gas of the wine as well as its alcohol to escape, and to be replaced by atmospheric air, materially injures the wine, and if not found out in time, will decompose it. In the use of these bungs the same care is necessary as with the common ones. They must be kept clean, and must have that part that stops the bung hole surrounded with a clean coarse linen rag, so as to prevent the escape of the fixed air from the wine. Independently of the good effect which the long bung has upon the wine, it saves the trouble of boring the casks to draw samples, for with a small hand syphon samples may be quickly drawn without spilling any of the wine, which otherwise could hardly be avoided; to say nothing of the ebullition through the peg-holes. These bungs have for many years been in use in private cellars, as well as in the great ones of the wine merchants on the Continent; and as I have

for a considerable time used them here to my perfect satisfaction, I have great reason to recommend them to others, and shall constantly give them a decided preference.

Having thus given my opinion on wine cellars, casks, and bungs, I cannot close this chapter, without adverting to the utensils necessary in a well regulated cellar; much depending on the materials of which they are made, on their cleanliness, and judicious use. I shall begin with the racking cans. These as well as the tundishes and small tubs placed under the cocks to receive the occasional droppings, ought to be made of sound oak, and kept perfectly clean; for as wine will not suffer the least impurity, the more delicate wines, owing to the carelessness or mismanagement of those who attend to them, are frequently set into an untimely fermentation, and ruined. Wooden vessels can easily be kept clean, by which all yeasty or other hurtful particles may be more easily prevented from communicating with clean wine, than by the use of metal vessels which ought never to be used, on account of their corroding.

CHAPTER THE SIXTH.

FURTHER OBSERVATIONS ON KEEPING WINE CASKS
SWEET, ON THE PREPARATION OF SULPHUR MATCHES,
AND THE TREATMENT OF THE MORE DELICATE WINES.

SULPHUR is one of the greatest purifiers, and one of the most innocent and effectual remedies for keeping casks and cellars sweet. But every good remedy having its bounds, beyond which it would not be prudent to go, so has the use of sulphur as a sweetener its limits, beyond which it will do as much harm, as it will do good when used judiciously. The casks when properly cleaned as recommended in the preceding chapter, previous to being filled again with wine, ought to be matched in the following proportion: to a pipe or butt, about two inches of a match in length, and $1\frac{1}{2}$ inch in breadth will suffice; for a hogshead one inch, and so in proportion to the size of the vessel. For red wines of all descriptions the same sized matches may be used, with this difference, that a small quantity of

powdered nutmeg ought to be incorporated with the sulphur before it is ignited in the cask. As much depends on the sulphur, as well as on the matches for sweetening vessels intended to receive valuable wine, it is advisable to prepare them at home, under one's own inspection. The best way to prepare the matches, is to melt one pound of yellow sulphur, free from red arsenic spots, in an iron ladle, over a slow fire; when the sulphur is properly dissolved, fix a piece of coarse linen, about five inches long and $1\frac{1}{2}$ broad, to an iron hook; draw it through the boiling sulphur, and place it quickly on a board to cool. In this manner you will make, from one pound of sulphur and a yard of coarse linen, a sufficient number of matches to sweeten your casks and cellar for a whole year. In the preparation of matches for red wine, a small quantity of grated nutmeg may be strewed upon them as soon as they are drawn out of the melted sulphur, and if this be done before the sulphur cools, it will adhere and impart to the casks a particularly fine flavour. The operation of matching the casks is generally performed one or two hours previous to filling them with the wine, during which time the bungs must be closely fixed, so as to give the sulphur sufficient time to communicate its saving influence to the staves. Whilst we have thus provided for the inside of the casks, the outside requires an equal

share of the cellarman's attention, and ought upon no account to be neglected. They should never be permitted to form a mouldy coat upon the staves, especially where the hoops are entirely of wood, for these perish very soon, and infect the staves to the ruin of the wine. It is also often the case that the wooden triggers or stoppers to the casks, cause a friction where it is least expected, and thereby injure materially that part of the staves with which they stand in connexion, if not prevented in time. If such necessary implements to a cellar could be procured of a silicious stone, it would prevent that friction which is caused by the close connection of wood with wood.

The treatment of the more delicate wines being one of the principal cares of a cellarman, it is requisite that he should be informed by the foreign shipper of the exact age of the wine shipped on his own or his employer's account. It frequently happens that the foreign factor, anxious to supply his correspondent with the best wine of a valuable vintage, sends it off before it has undergone the necessary changes towards its perfection, fully convinced that this attention will not fail to be paid to it on its arrival in the merchant's cellar. This is however seldom the case, and the wines thus sent are generally housed on their

arrival in this country in bonded cellars, crowded with wines from different climates, and all requiring different treatment. Such valuable green or new wines, as all good wines ought to be, if they are charged with their due proportion of saccharine matter, will very soon, in such crowded and close cellars, enter upon their second fermentation, which I shall fully describe in the next chapter; and in that state, if unassisted by the best care to give vent to the superabundant carbonic gas, created by the transit of the sugar into alcohol, such excellent wine will very soon change its character, to the great loss of the importer. This change is more commonly felt in white wines, and it would be to the importer's interest never to house those delicate wines in bonded cellars,* but at once to pay duty for them, so as to be able to pay them proper attention in their progress towards perfection. Every change in the weather having influence upon new and unfinished wine, the deposit it makes from time to time rises again during any stormy agitation in the atmosphere, and is often most difficult to be repressed, and seldom fails to communicate a bad flavour to the wine. All these evils are avoided by seasonably racking the wine, which in

* Unless, as is the case out of London, the keepers of bonded cellars should reserve cellars for those wines separate from the rest.

bond cannot be duly attended to. If the importer house those delicate wines at once in his own cellar, he has the advantage of filling them up whenever they require it, whereby he secures them against the access of atmospheric air, and against the creation of mildew, which may be considered as the forerunner of decomposition.*

The treatment of wine is therefore not altogether so easy a task as many importers suppose, and although they may confidently trust, that some of the wine imported has been prepared for them by the foreign factor, so as to require but little attention before they bottle it, they must upon no account extend their confidence to the more delicate French wines, which, not admitting of any ardent spirits to be mixed with them, require great attention to keep them in proper condition.

* By a late law, wine in bond may be racked, and also filled up when required.

CHAPTER THE SEVENTH.

ON THE DIFFERENT FERMENTATIONS OF WINE.

CHEMISTS enumerate three sorts of fermentations, namely—the acetous, the vinous, and the putrefactive. That all three are met with in wine has been fully proved, even to the great loss of the holders of wine so affected. The acetous produces vinegar, the vinous wine, and the putrefactive causes decomposition. Yeast, or the impure sediment deposited at the bottom of the cask, or in many instances forced through the bung-hole by the fermenting liquors, contains a certain quantity of gluten,* which is used to set liquids into fermentation. This gluten being abundantly contained in the grape, the must or juice of the grape

* Gluten is met with in nearly all vegetable substances; it is of a grey colour, and almost tasteless; its structure is fibrous, accompanied with a high degree of viscosity and elasticity.

ferments fully and beneficially, without the assistance of yeast. During the first, as well as the subsequent fermentations, great care is required to prevent the acetous fermentation; for all wines, if neglected at these times, acquire an acetous bitter taste, which being the forerunner of the third or bitter fermentation, renders their cure almost hopeless.

The changes that take place during the vinous fermentation, consist in carbonic acid, and the saccharine matter being converted into alcohol, all of which are essential qualities of good wine. The must, or newly pressed wine, during a fine vintage, possessing in itself all the ingredients required to bring on a good and perfect vinous fermentation, begins the same in all the white wines, as soon as they are put into the cask. This in red wines is not the case, and their treatment differs materially from the former. These wines undergo their fermentation before they are pressed, for their ruby colour is communicated to them from the skins of the berries, and from the skeleton of the grape, during a certain degree of fermentation, which they undergo after they have been properly mashed. This necessary operation is performed as soon as the vintagers have collected a sufficient quantity of grapes to fill one or more vats that will hold

many hogsheads of wine. The grapes thus collected are mashed in large flat tubs with wooden mallets, and in some places by boys, who tread them with their feet. When they are properly mashed, and the berries partly separated from the skeletons, and partly bruised, the whole is put into the great vats, when in a short time the fermentation begins, and communicates the red substance of the skeleton and skins to the must, which, without this fermentation, would have produced a white wine. Of the care necessary to watch this fermentation of red wines, I have amply spoken in the second chapter.

The fermentation of the newly made wines frequently lasts from three to four weeks, after which the bungs are fastened down sufficiently tight to prevent the fixed air in the wine from escaping. Much attention however is required in watching the progress of the wine, and very particularly during the three critical periods, when nature exerts her influence on all wines, but more particularly on new ones, which are more or less charged with saccharine substance. These three critical periods take place, the first about April, when the sap rises into the branch-wood of the wines, the second during the blooming of the vines about the beginning or middle of June, and the third period during

the ripening of the fruit about the latter end of August. During these periods the casks require a little air, and the utmost care, should any fermentation exist in any of the wine. Old wines are not exempt from the powerful influence of nature during those times; they frequently become turbid in bottle, and return to their former brightness as soon as those periods are gone by, whilst newer wines, bottled before their powerful saccharine matter has been properly digested in the casks, are driven into fermentation, and free themselves of their fixed air, by bursting the bottles to the no small loss of the wine merchant. If, therefore, wine has been sent to this or any other climate in an unfinished state, and with its full weight of saccharine matter, it must on its arrival receive that attention which it ought to have had up to the period of its full perfection from the foreign shipper, or such importation will not only disappoint the expectations of the wine merchant, but will prove a heavy loss to him.

The still existing impurities in wine in wood, and their tendency to disturb and set it into fermentation, are easily discovered by its becoming turbid at the different changes of the weather to which our climate is so subject. In this case no time should be lost in racking it as soon as the floating

lees are gone down again, and to fine the clear wine drawn off with the whites of about eight eggs and from four to six ounces of marine salt to the hogshead of 50 or 60 gallons, well beaten up into froth, and then incorporated with the wine with the usual fining stick. This will in the course of ten or twelve days render it fit for bottling, without the danger of its again becoming turbid. In wine that has lost its ruby colour, a quart or six pints of clean marine water, used with the fining, is often an efficacious remedy for restoring it.

During the frequent changes in the weather, already alluded to, and more particularly during the prevalence of southerly winds, no wine should either be racked or bottled, but especially the more delicate wines of France and Germany. The clearer wine is at the time of racking or bottling it, the better it will keep so, and the more certain will be its progress towards its ultimate perfection. Should however any of the finer French or German white wines, after all the care recommended, make a slimy deposit in the bottles, or a crystalline adhesion to the sides of the bottles, which I have known to happen, it will never injure the wine; but on the contrary, it is a certain proof of its excellent quality. If laid by for a short time, the deposit of the carbonic acid, with the floating

saccharine matter, will turn into spirit or alcohol, to the great improvement of the wine, which after some rest returns to its former brightness. The floating saccharine matter of itself does not cause any fermentation, but the slimy deposit of carbonic acid uniting with the principal component parts of good wine—namely, saccharine matter, water, cream of tartar, and sugar crystals, brings on a beneficial fermentation, and gives softness and durability to the wine, provided nature has given a due proportion of the above named parts for producing good wine to the grapes, from which it was made.

It is not a general case that grapes contain all those four qualities, and the quantity which they possess of them, depends on the weather during their growth, and more particularly during their ripening. Too much wet, as well as too much dry weather, deprives the fruit of a due proportion of those qualities, and consequently prevents that perfect fermentation which is so essential to the production of good wine. This, which is properly termed the second fermentation, does not take place at stated periods, and as it depends chiefly on the quantity of saccharine matter contained in the wine, I have observed that it generally takes place in wines three or four

years old, whilst others of particularly fine vintages, such as the Hocks and Sauternes of 1822 have not shown any signs of their second fermentation until they were eight or nine years old. During this second fermentation, all the skill and care of the cellarman is required in order to prevent its becoming too violent, whereby the good qualities of the wine, instead of improving, are destroyed, and a great loss caused to the proprietor. This destruction of wine, otherwise good, takes place generally in wine shipped in too green a state, of which I have made mention in a preceding chapter; and if such wine be bonded in cellars usually close, where heat, the effluvium of a mixture of all sorts of wine, dampness, and occasional currents of air, are powerful agents for promoting an untimely second fermentation, without the importer having a proper opportunity of paying due attention to it, so that when he expects it to have arrived at full perfection, he finds it acid, if not putrid. The bonding of wine may in some instances be a convenience to the trade, but in many other respects it certainly proves injurious. It is a well-known fact, that few merchants would order the quantity of wine from their correspondents, which they at present import, were it not for the convenience of bonding it; and all these wines, strong and light, are bonded in the same cellars, and

there remain until they are wanted for bottling, it happens too often that the lighter wines, for want of due attention, remain upon ullage, till the atmospheric air takes possession of them, to the great detriment of the importer. As wines from different climates require to be kept in cellars of different temperatures, it must certainly prove fatal to some of the light, as well as to the more delicate wines, which do not admit of being mixed with ardent spirits, to be all together in the same cellars.*

In speaking of the attention to be paid to wine in general, as well as to particular wines, I do not mean that they should be closely nursed, but rather, on the contrary, that they should be provided with a wholesome atmospheric air, should be constantly kept filled up, and should be guarded against strong currents of air. If this be duly attended to, it will preserve them in good condition, by promoting the imperceptible changes that are continually working in them, and whereby they come in wood, as well as in bottle, to that perfection which, in close and confined cellars, they cannot attain. These confined

* I have already mentioned that out of the London Docks, bonded cellars for delicate wines may easily be obtained, and therefore the danger alluded to may as easily be obviated, by due attention.

or rather crowded receptacles of all sorts of wine, disturb the equilibrium and the relation which one part bears to another in all wines; new combinations and fresh separations of the parts take place, consisting of the wine tartar, tartaric acidulous alkali, produced by the warmth; and the aqueous parts in the wine, combining at the same time part of the carbon and carbonic acid, and thus forming a gas, produce the great emotion in the remaining tough impurity, which, without a free access to the cask, so as to pay it the required attention, will, as already stated, effect its speedy ruin.

It has been proved by experienced chemists, that after a beneficial second fermentation, there still remains in full-bodied strong wines a considerable quantity of saccharine matter, which, coming in contact with the carbonic acid, causes a slight and almost imperceptible fermentation, only known to a skilful cellarman, who at those periods will of course carefully abstain from bottling such wine; for should he ignorantly perform that process, the consequence will be nearly that of the second fermentation, namely, the bursting of the bottles. After this last change in the wine, it becomes perfectly transparent, and although it may be bottled in that state, with great security of its keeping bright, yet I have found by my own experience,

that by racking it once more in that clear state, I was amply remunerated by the brightness it ever after preserved in bottle.

I have particularly dwelt on the treatment of French, Rhenish, and Moselle wines, because they will prove a heavy loss to the importer, unless the greatest care be taken of them. But whilst I recommend these wines to the care of the importer, I do not mean to state, that the wines prepared in Spain, Portugal, and other wine countries for our markets, do not require attention when they come into our cellars. Although the spirits with which those wines are prepared to suit the palate of the consumer, prevent any future violent fermentation, they are nevertheless subject to an imperceptible fermentation, during which they disengage themselves, not only from any remaining impurities, but likewise from the more ardent parts of the spirit, with which they have been mixed, whereby they become mellow, fit for the bottle, and give satisfaction to the consumers. The transition of the saccharine part into alcohol is in these wines less perceptible than in the purer French and Rhenish wines, and the chief attention therefore here required, consists in keeping the casks as free from ullage as possible, otherwise a column of atmospheric air resting upon the wine

will prevent its progress towards perfection, and if it be not of a particularly sound body, will turn it acid. Much also depends on the clearness in wines that are mixed with spirits; for should they be bottled before they are perfectly fine, they will never recover in bottle, and must be started to undergo a second fining before they can be brought to creditable sale.

CHAPTER THE EIGHTH.

DESCRIPTION OF THE THREE FERMENTATIONS TO WHICH
GOOD WINE IS SUBJECT, AND ON THE SEDIMENT IN
WINE.

THE spirituous fermentation converts the saccharine matter of the wine into alcohol or spirit. The acid fermentation is either too great and violent a continuation of the spirituous, or a renewal of the same in a more violent manner, to which all the saccharine substance falling a victim, the spirit is destroyed, and the wine becomes acid, or vinegar. The putrid fermentation is the effect of both the preceding ones having taken place too violently, and destroyed the principal requisites, namely sugar and spirit, when the saline matter deposited with the lees, rises in a thick mass in the wine, and brings on that abominable flavour, called putrid, which no art can properly cure, so as to render the wine potable. The causes by which wine is set into an untimely fermentation are many, to which the lees and tartar contribute no small

share. A continuation of wet weather will materially affect all wines on lees, also the shaking of casks, the admission of atmospheric air into the casks, and as many experienced writers assert, the employment of persons in ill health about wine ; these are some of the fatal causes which bring on an untimely fermentation.

Although in this country where the vine does not prosper, we have a right to expect that the foreign shippers will expedite their wines free from the sediment deposited during the first fermentation, and that such wines of course are free from any, or at least from such chances as will endanger them ; we ought nevertheless to be on our guard to ensure their perfect safety. They will require the constant care of the wine merchant, whereby he will preserve them for his credit and benefit. If in racking, any quantity of gross sediment should be found at the bottom of the cask, it is advisable, contrary to old customs, not to bag it, and to mix the wine run from it, with the purer wine, but rather to preserve it in a vessel kept for that purpose. This is more particularly recommended in bottling off wine, where the bagged wine is too often mixed in the packages with the best. This bad practice may serve the financial interest of the merchant, but will never be to his

credit with the consumer, who detecting a bottle of such wine, frequently condemns the whole parcel sent him, as bad wine. If therefore two vessels be kept, one for white wine and another for red, the clear part of the wine of the sediments preserved in them may in a short time be drawn off, and if bottled in stone bottles well stopped, will in the course of six or eight months become a powerful wine. The remaining stiff sediment, may then be bagged, and the wine obtained from it will serve for sweetening casks and many other purposes in the wine cellar. The coopers in the wine countries, to whom the sole management of the wine cellars of the great proprietors and planters is entrusted, collect all the yeast in large vessels or casks, which when full they carefully bung down, and leave undisturbed for six or eight months, after which they peg the cask in the centre, and draw off a strong bodied wine, which after having been frequently racked, recovers its flavour, and is not inferior to the best. The remaining sediment is either used for distilling, or for extracting a superior cream of tartar, which they sell to the druggists at remunerating prices, keeping constantly a certain quantity by them for the cure of sick wine.

CHAPTER THE NINTH.

ON CHAMPAGNE WINE, AND ON THE FRAUDS PRACTISED ON THE PUBLIC BY SPURIOUS IMITATIONS.

THE genuine Champagne is produced from a grape of a peculiar flavour, and which no where prospers so well as in the chalky eminences of the Champagne country of France, and on the gentle declivities of the hills in Burgundy, where it is called Pineau, of which there are several varieties. Its effervescence is produced by a due attention to the wine during its fermentation, the first of which being over, it is fined until it attains a brilliant brightness. In this state it is frequently racked, until the second fermentation commences, which usually happens between the months of October and March. This work occupies all the time and attention of the cellarmen, for the wine being perfectly free from lees and tartaric deposit, has preserved its brightness undisturbed, up to the period of the first signs

of its second fermentation, in which state it is drawn off into strong bottles, of which they keep many thousand dozens in readiness, in some of the houses at Epernay and Rheims, and cork them down with the finest French cork, selected purposely for this sort of wine. The corks are next secured with string, wire, and rosin, and the bottles placed in large flat vats, or in other vessels, so as to prevent the wine from being wasted in case of breaking. The labour of the men employed during this operation is immense, and although the art of managing this wine is no where so well understood as in the Champagne countries, yet the losses by unaccountable waste, and the bursting of the bottles, are very heavy, and this, independently of the superior goodness of real Champagne wine, is one of the reasons why these genuine wines cannot be sold at the low price at which those spurious and manufactured wines, of which such great quantities have found their way to this country, under the name of Champagne, are sold, and of which I shall speak hereafter.

The goodness of this, as well as of all other wines, depends on the weather during the growth and ripening of the fruit; for during a cold and wet season, and in the absence of a congenial sun, the saccharine matter, owing to the preponderating

watery parts, is too insignificant to promise a beneficial fermentation, for which reason the respectable houses of Epernay, Rheims, and Chalons, never attempt to make sparkling Champagne of those grapes. It is therefore evident that this wine requires a fine warm season to bring it to perfection. After a very rich vintage, they are frequently obliged to start a great quantity of their wine, upon account of the continual deposit of saccharine matter, which, as wine cannot be expedited to foreign countries in that state, greatly augments their labour, adding at the same time a considerable increase to their expenses. I might with truth say, that the wine made from the small berried Burgundy Pineau grape, is hardly inferior, either in flavour or in the other qualities, to the real Champagne. This wine is sold by the name of Bourgogne mousseux, or sparkling Burgundy, at the same price as Champagne, and is by many connoisseurs preferred. This imitation of Champagne was first attempted by my friend, Mr. Julius Lausseure, of Nuits, in Burgundy, and he has most successfully introduced it, with his other choice Burgundy wine, into this country, but with much greater success all over the continent, where, particularly in Russia, from the house of Lausseure and Co. an immense quantity is annually consumed. Near the Ardeche at St. Perrey, Champagne has

been attempted to be imitated, but has failed, those wines neither possessing the aroma, nor the sound vinous substance of either real Champagne or Bourgogne mousseux. The St. Perrey will therefore ever remain a sweet sparkling wine, without any other good quality to recommend it. On the banks of the Rhine, an attempt has been made to make Champagne from a mixture of the Riesling, and the sweet Traminer grapes, where the former would supply aroma or flavour, and the latter sugar, and the trial has succeeded to full expectation. But the wine made of those grapes, during a prosperous vintage, being of far greater value than the real Champagne itself, such an imitation could therefore only be attempted in order to please the fancy of the curious, but would never remunerate the makers.

The immense quantity of wine grown in the southern departments of France, where a congenial and happy climate ripens the fruit to greater perfection than in the northern, has of late years produced a great many speculations. An imitation of Madeira has been for several years successfully attempted, from a grape that has the flavour of the Madeira fruit, but produces a strong and fiery wine, only fit for the hard working French peasants. This wine was, to the great injury of the Madeira

planters, brought to this country by some circuitous shipments, and owing to its low price obtained sales, until the fraud was happily detected. In the southern provinces of France this strong wine is so abundant, that it is sold at two and three pounds per pipe, and must therefore have afforded a great encouragement to speculators. A similar imposition is at present practised in those provinces, in imitation of Champagne. The effervescence of those wines, far from being the effect of a regular saccharine fermentation brought on in due course, as in real Champagne, which they would find too expensive for their speculating, is produced by drugs, or ingredients, such as will even cause water to sparkle, and this wine is shipped to this country for genuine Champagne, and sold at such convenient prices, as to induce many of the trade, careless of their reputation, partly from avarice and partly from a mean spirit of opposition to their more honourable fellow traders, to purchase largely of those spurious and extremely unwholesome wines. They circulate them chiefly amongst those Champagne drinkers, whose judgment of that sort of wine is confined to the sparkling drops which they feel under their noses, whilst the real connoisseur looks in vain for the excellent aroma and saccharine quality of real unadulterated Champagne. In France these manu-

factured wines are seldom introduced, owing to their unwholesome nature, but are imported here, at such low prices as to enable the unprincipled dealer in this trash to sell it at less than half the price of real Champagne. The wine from which this Champagne is manufactured, is of that heating nature, that it produces nervous affections if drunk freely in its natural state, and how much more unwholesome must it be rendered by the addition of drugs to make it resemble real Champagne. The consumer of this cheap wine, not only runs the risk of injuring his health, but also his pocket, for should he purchase largely, he may rest assured that before he can make use of it, it will be spoiled.

That this spurious wine may for a time injure the sales of the respectable houses at Epernay, Rheims and Chalons, there is not the least doubt, but they will always triumph, whenever their excellent wines are compared with the unwholesome trash which of late years has been introduced by agents of all nations. The sole interest of these men arises from the lucrative agency they receive from some obscure house in France; and they have carried the speculation so far, as to hawk their wine about from one respectable house to another in all the three kingdoms, in

cases of a dozen each. This abuse of trade has in some measure been injurious to the upright trader, more particularly on account of the suspicion which the sales of those bad wines have caused in their customers; for these having tasted the spurious Champagne at many tables, have ceased to introduce Champagne at all.

This abuse of trade having of late been detected, and the purchasers of such wine having found their error to their cost, a new or rather new wines are at present attempted to be introduced by the foreign travellers, by the names of sparkling Barsac, Sauterne, Rhenish, and Moselle. These wines being generally very low priced weak wines, are bottled in a green state, and before they have undergone their second fermentation, which taking place in the bottles, brings on a sparkling in the wine, which would soon burst the bottles, if the wine had a sufficient quantity of saccharine matter and alcohol. Drugs also will produce a greater effervescence in these wines, than in the wines of the more southern growth, because they contain less of that powerful alcohol, which is so natural to the wines of warmer climates, and prevents the sparkling so much desired by the eager speculator. It is much to be regretted that the herd of foreign travellers for the sale of wines, should at all be

encouraged by the trade and private gentlemen, unless they can give undeniable proof that they represent a respectable house well known to the trade. The most respectable houses at Bourdeaux, in Champagne, and on the banks of the Rhine, are so well known, that they seldom send agents abroad, unless they are members of their own family, or connected with them in commerce.

CHAPTER THE TENTH.

ON ACIDITY IN WINE, ITS PREVENTION AND CURE ;
ALSO ON THE RESTORATION OF ROPY WINE.

To prevent acidity in wine, and to cure it when it has taken place, is in many instances a most difficult, and I may say very often a hopeless task. The holder of wine in wood, especially wine free from an admixture of spirits, ought to watch his casks well, and to be careful that none of its carbonic gas escape, by which a vacuum is created, which, as already described, will be occupied by atmospheric air, and will in a short time bring on that vegetable blossom, generally called messengers, as the first and certain symptoms of decomposition. Of the prevention of these evils, too much cannot be said ; for it is of serious consequence to the importer, after having paid first cost, freight, and frequently the heavy duty, to find his wine affected with acidity, through the neglect of those to whose care he may have entrusted it, and very probably

owing to his own ignorance of the treatment of some wines, with which he may have had no opportunity of becoming familiar. I can only, therefore, again admonish the holders of such wine, to endeavour to keep out that great enemy to all fermented liquors, atmospheric air. The smallest opening in any of the seams of the casks, a worm-hole, and even a porous peg, are all sufficient causes of the deterioration and ultimate ruin of wine. It behoves a cellarman, therefore, to inspect his casks daily, and in drawing samples, not to keep his peg-holes open longer than is absolutely necessary, and never to leave his cellar without seeing that the bungs and peg-holes are properly secured against the access of air. It is a bad practice to bore peg-holes at all in casks, for the air that on opening them rushes through the wine, might be kept out by the use of the long bung which I have recommended; for, instead of permitting the atmospheric air to rush through the wine by the means of the two peg-holes generally bored in the casks, only a gentle pressure on the surface is needed, in taking samples through the bung-hole, with a small glass or tin hand-syphon. This method also saves the wine from being disturbed by the heavy blows necessary to start the usual chivers or bungs. The best hand-syphons are those made of flint glass, because they never

corrode, and are easily kept clean, which is so essentially necessary in all wines, for if the least impurity be conveyed through a dirty syphon to wine of a delicate nature, it will often cause an undue fermentation, to the great prejudice of it. When samples are drawn from the bung-hole, the operation should be most expeditiously performed, and the bung-hole closed with one of the long bungs, with a clean linen rag round that part which stops the cask, by which the escape of carbonic gas, and the access of atmospheric air, are alike prevented. Cleanliness in the management is most particularly recommended, as well as clean attendants.

Wine in its first state of acidity, is termed pricked by the cellarmen, which will happen if the casks are not kept filled up to the bung, and will more frequently happen in weak wines, kept beyond the usual time allotted to them by nature for their aroma and alcohol to keep. Sound wine, that is full of the natural good qualities it ought to possess, if kept from the dangerous atmospheric air, will easily prevent the white blossom from spreading over its surface, for the wine by its strength will ward off what weak wines cannot. These messengers of evil make their appearance in different colours, of which those of a white or of a

purple colour may be easily removed, without any farther damage to the wine, by gently inserting a piece of new flannel, so as to let it float on the top of the wine, which, on being withdrawn, brings out all those unwelcome intruders, without any danger to the wine. Should they, however, be of a yellow or black colour, no time should be lost in clearing the surface, and then racking the wine into a clean cask, well matched, with an infusion of a quart of spirits of wine, to every 50 gallons, imperial measure. This remedy will be found fully efficacious to save the wine, if resorted to in good time. Wine thus saved should be carefully watched, so as not to become subject to a repetition of the same.

It has often been remarked, and in my opinion with great justice, that Burgundy wine will not keep good long in this climate. The principal cause is, that certain situations in Burgundy produce a delicate and most pleasant wine, such as the Volney and Pomard; but, as these wines are ruined if exposed to the usual fermentation of the other Burgundy wines, the planters find it their interest to expose them to the most gentle fermentation, whereby that wine is prevented from uniting its rich and oily quality with the other essential qualities, and this oily substance keeping afloat on the watery parts of the wine, ultimately changes its

ruby colour into a tawny yellow, and the wine becomes ropy, and most disgusting in its taste and smell. This happens rarely with the better or stronger sorts of Burgundy wines, such as the Clos de Vougeot, the Romané Conté, &c. &c. the superior aroma and powerful alcohol of which will keep them good in proper hands. The excellent wines coming from those estates, and vintaged during a good season, will keep good for any reasonable time in this climate, and only perish where they are nursed in a similar manner to Port, Sherry, or Madeira wines. They ought to be kept in a cool cellar, and to be simply packed upon laths, without any saw-dust, and would prosper still better were they packed in sand.

It often happens that French and German white wines turn ropy, especially those that have been vintaged during a wet rainy season, and consequently deprived of their due proportion of saccharine matter. They cannot keep the usual time expected by many, and frequently prove a loss. The fermentation during such rainy seasons being partial and imperfect, wines so made become only fit to be used in their new or green state, and will greatly disappoint the owner, if kept on speculation for a better market, by turning ropy. The Swabian, Alsacian, Moselle, and the Palatine wines, with a

very few exceptions of the latter, are of the number of those wines that ought never to be kept to a high age, owing to their not having the full requisites of the better sort of Rhenish wines, which consist of saccharine matter and alcohol, and which preserve them in good condition to old age, when, instead of declining in goodness, they develope their *bouquet* and natural strength in the highest perfection. But here the purchaser of stock or Rhenish wines ought to know the character of the man with whom he deals. The Palatine wines introduced lately by this new name, as Rhenish or Hock wines, have captivated the curiosity of many, and induced them to purchase unwholesome and harsh wines, at prices which most amply remunerated the adventurers, who could thus sell at ten or fifteen pounds per aum, a wine that may be purchased in the Palatinate of Germany, at the low price of from three to four pounds per aum for the very best, and the inferior sorts generally drunk by the labouring German boors, at thirty or forty shillings per aum. The purchaser of these miserable wines, besides the injury he suffers in his health, by drinking them freely, will also suffer injury in his pocket, should he, in imitation of the real Hock or Rhenish wine, attempt to keep them for any period beyond what their natural strength will allow. These wines, as already observed, will

do for the hard working German boors, but they will never do credit to the English gentleman's table. They generally turn ropy, then sour, and end in becoming bad vinegar.

Should any of these wines turn ropy in bottle, the safest and surest way to restore them is, to start them at once into a clean cask slightly matched, or a cask that has had a superior wine in it for some previous time, and to add to every forty imperial gallons, one full quart of spirits of wine; then to work the whole together with a fining stick, and fill up the cask close to the bung, and in ten or twelve days it will be perfectly recovered. This method of recovering ropy wines may in some measure alter the condition of those more genuine wines, which are, more than any of the brandied wines, subject to this fatal variation; yet, as the remedy is a saving one, the wine thus rescued from further decomposition, will ultimately become marketable, and will by no means take a bad flavour, but should be brought to a timely market. There is also a method of curing ropy wines in bottle, which I have found by my own experience to answer the merchant's expectation, provided the wine turned thick or ropy should have more body than wines of that description generally have. The method of curing them is the most simple of

all, and consists in well shaking it in bottle, and putting it aside in a bin for eight or ten months, at the end of which period it will, provided it have a sound body, resume all its former goodness, and amply reward the merchant for his attention, inasmuch as the remaining parts of the floating saccharine matter, often mistaken for ropy substance, having by that time been converted into alcohol, renders the wine of greater value. Should however wine turned ropy in bottle, be of a low description, or vintaged during a wet and bad season, it is of little use to recommend the preceding method, and the only way to recover it, is, to start it, and drink it as soon as it is recovered, for where strength is absent, maladies in wine will take place, and decomposition must follow. The practice lately resorted to by the foreign travellers, of introducing low and weak wines into this country, will in my opinion very soon cure itself, on account of the daily disappointments which they cause to the more inexperienced dealers, and the totally inexperienced private gentlemen who listen to their tales.

CHAPTER THE ELEVENTH.

ON THE FINING OF WINE, AND ITS GOOD EFFECTS
WHEN PROPERLY APPLIED; ALSO ON THE METHOD
OF PREPARING A WHOLESOME FINING, AND THE
MANNER HOW TO USE IT FOR THE DIFFERENT SORTS
OF WINES IN USE IN THIS COUNTRY.

YOUNG wines are constantly working towards their ultimate perfection, which consists in the development of their component parts. During this natural operation, they deposit all such impurities as would otherwise impede their progress to ripeness, and may appear perfectly limpid; after their first fermentation, they seldom remain so for any length of time, and being influenced by any sudden change in the weather, they become turbid or disturbed. In order to prevent the frequent risings of the rejected deposit, the surest remedy is to fine them, and next to rack them into clean vessels, by which operation they are freed from their sedi-

ment, upon which the changes in the weather have so powerful and fatal an influence.

PREPARATION OF THE FINING.

The general mode of fining white wine, adopted by the trade, is, with a solution of isinglas, or some gelatine matter sold for such. As no fining can possibly exceed the innocent gelatine prepared from the isinglas, the great and principal care of the wine merchant here consists in preparing his own fining. This should be from the small bladders or coils of isinglas, such as are nearly transparent, and free from spots. Half a pound of them placed between a coarse cloth, well beaten with a wooden mallet, upon a wooden block, will separate into fibres, and may in that state be easily cut into shreds with a pair of scissors. The finer these shreds are, the better, and easier will the solution be. These shreds must next be put into a wooden can, perfectly clean, with an infusion of three common wine bottlesful of some dry and sound wine, such as Vin de Graves, Barsac, Hock, or Moselle, after which the can should be placed as near a fire as may be considered prudent, for a wooden vessel. Above all, the can ought to be well covered, so as to prevent any dust from mixing with the gelatine. In this situation it ought to remain undisturbed, until the whole has the appearance of a cake of

solid jelly, when it may be broken with clean hands, and filled up gradually with as much as it will take of any of the above-named wines, until it becomes a fluid fit for use. In this state it must be preserved either in glass bottles or in stone jars, well secured from the atmospheric air, and thus it will keep good for years. This operation will generally take from eight to ten bottles of wine, provided the isinglas be good, and will no doubt by many be considered a most expensive sort of fining, which I readily grant; but what prudent and honourable man would sport with his good wines, and also with the health of his customers, by using the fining stuff usually sold to the trade by persons who make a profession of preparing it? This gelatine is sold cheap, and as they dissolve the isinglas, if they use any at all, with vinegar, or some sour liquid, the wine fined therewith will certainly not benefit by it, but will be injured by the bad taste and acidity communicated to it. Besides the danger of communicating acidity to the wine, there is a still greater, which is, that should the gelatine generally sold for fining, have been prepared from any gross animal substance, as I firmly believe is too much the practice, its gluten will no doubt carry to the bottom, with its own weight, the floating impurities in the wine; but it will leave behind a flavour altogether unnatural and

unlooked for in good wine, and if left any time in it, will cause a fatal fermentation. The more simple and the cleaner these operations are performed, the more wholesome the wine will be, and the wine merchant will, after all his expenses, be amply remunerated by the great satisfaction he will give to his customers, and by the full security he will enjoy, of having his wine perfectly transparent, without the danger of its acquiring a bad flavour. As the good state of the wine, as well as the health of the consumer, much depend on the state of the wine, no prudent wine merchant should commit the preparation of his fining to his old cellarmen, who are generally partial to preparing their fining with vinegar, because it gives less trouble. He should either prepare it himself, or see it prepared by a clean healthy person, under his own direction.

I have carefully perused the writings of practical French, German, and other continental authors on wine and its treatment, and find that the great holders of wine in the principal wine countries, from which our markets are generally supplied, recommend isinglas as the safest, most effectual, and most innocent ingredient for producing a clear, healthy, and marketable wine, and although they may differ in the application of the same, yet I

have not found, in one single instance, vinegar, or any other strong acetous matter, recommended for dissolving the isinglas. Many of the treatises on wine which I have perused, recommend various sorts of fining, which, upon trial, I have found to sound well in theory, but work badly in practice. Some experienced French wine merchants recommend the fining to be simply poured into the cask, so as to form a sheet on the surface, and thus to precipitate the floating yeast with the gelatine. Others recommend a certain proportion of gum arabic, finely powdered, to be strewed over the surface of the wine with a small stirring stick, and others recommend nostrums that ought to be ever strangers to wine. As to study all these particular methods, would more bewilder an ordinary cellar-man than benefit him, and since, as above stated, I have found them fail in the application, I am fully convinced that the use of the isinglas, when *properly prepared*, will be preferable to any of the recipes that swell the pages of those writers. The improvements made in chemistry within the last half century, have laid open to the inquiring mind many and sure ways of preserving what formerly only depended on practice, without studying either quality or quantity in the judicious application; for which reason, no wine merchant should entrust his valuable property to the prejudices of old and

bigoted cellarmen, who are unable to give any reason for the effects produced, and but too often, with the best intentions for their employer's benefit, do more harm than good to the wine committed to their management.

The isinglas fining, although chiefly used for fining white wines, may also with great propriety and perfect safety be used for the fining of red wines; with this difference, that for red wine half a pint of it will suffice per hogshead, to be well beaten up with the whites of four fresh eggs, and three or four ounces of marine salt. The proportion or quantity to be increased according to the quantity and quality of the wine to be fined.

It may probably surprise many of my readers, that I should recommend marine salt to be used in the clearing of wine in general, and some also, I fear, may consider it as a stimulus to induce wine drinkers to drink more freely, whilst others may suppose that the salt would produce the same bad effects in the wine, as the vinegar does in the fining prepared with it. All these suppositions will readily subside, after the following easy experiment. Take an eighth part of an ounce of salt, and dissolve it in a gallon of water, which, when tasted, will not have the least saline taste; and the

quantity used in fining wine being far less per gallon than an eighth of an ounce, the effect as far as regards the opinions above alluded to, are not at all to be noticed. This small quantity of salt is only intended to assist the gelatine in clearing the wine more effectually of all its impurities, to assist in raising the natural flavour of the wine, and to preserve it from many incidental ailments.

Wine, after it has undergone its proper fermentations, when cleared with the fining recommended, and the process properly performed, may be bottled with perfect security from its ever becoming turbid in bottle. Should wine so fined be intended to be kept in wood, it ought to be racked, in its limpid state, into a clean cask, and carefully filled up, from time to time, so as to prevent the atmospheric air from entering upon it, which would destroy what the fining effected. This timely precaution will also secure it against the danger of a third, and as it is termed, imperceptible fermentation, which is as often injurious as in other respects it proves highly beneficial to the wine, when under skilful management. The frequent racking of wine has been often objected to by wine merchants otherwise experienced, under a false supposition that it weakens it. As an idea of this kind ought not for a moment to

exist, I will here briefly remark, that all fermented liquors resting upon their rejected impurities, cannot possibly prosper; and wine being the purest of all those liquids, instead of working towards perfection, will deteriorate as long as it remains upon its lees; for every change of weather having influence upon it, brings back what it had previously deposited, to float upon it again, and although the next dry and clear atmosphere may, to all appearance, restore the wine to the brightness it had attained after fining, it will, nevertheless, leave behind an unpleasant taste of the sediment, and too often, to the disappointment of the wine merchant, imperceptible particles of the lees, which, should the wine be bottled in that state, will, more particularly in white wine, discover themselves in flakes, swimming in the wine in bottle. It is therefore ill-judged to suppose that wine will be weakened by being frequently racked, for as it is constantly clearing itself by deposits, it is in the great wine districts racked twice a year, until it has attained the highest state of perfection and purity, when this operation is performed but once in the year.

I have dwelt a considerable time upon this work of racking and fining, so necessary in a well-managed cellar, because I know from experience,

that these important operations are too frequently entrusted to the most ignorant of men, who, fancying themselves fully skilled in the work of the wine cellar perform it too mechanically and superficially to answer the desired end. Cleanliness during these operations in the attendant, as well as in the tools used, and attention to the due proportion of the ingredients used in the art of fining, and to their proper mixture with the whisk, so as to produce the frothy substance that operates so beneficially upon the wine, being all of the first importance, and the future healthfulness of the wine depending on them, should be performed under the inspection of the master, or some other well informed person.

CHAPTER THE TWELFTH.

ON THE ADULTERATION OF WINE, AND HOW TO DETECT IT.

I am well aware that the prevailing notion, that wine merchants adulterate their wines, is as difficult to do away, as it is to restore wine to its pristine goodness, after it has passed through all the degrees of natural decomposition. The reputation of the wine merchant, his prosperity as a trader, and the desire of his making suitable returns by his trade for the great sums embarked, as well as for his care and labour, are certainly powerful inducements to make him employ his best means to become possessed of a good cellar of approved wines, which alone will enable him to meet his friends with an upright conscience and choice recommendation. Adulterated wine can never gain in quality, although it may in taste, and will ultimately return to that state of decomposition to

which it was hastening before the adulteration was thought of. It is therefore unreasonable to suppose that wine merchants should expose themselves to the certainty of ruining their wines, conjointly with their reputation as traders. That a change in the character of low wines may be effected by chemical and other mixtures, cannot be disputed, and it may serve the end of retailers of wine in great cities, where the consumption is quick and great, such as in Paris, where the lower class drink, and know no other beverage but those light and cheap wines. Here there is an encouragement for fraudulent dealers to adulterate wine; and it has been proved that the retailers of wine in Paris are well versed in the art of adulterating their wines, with a mixture of the juice of the beet root with cream of tartar, and the strong and fiery wine of Languedoc, of which, in a preceding chapter, I have mentioned the introduction into this country some years ago as Madeira, owing to its having much of the flavour of that wine. This fraud is however, even in the French capital, confined to retailers of wine of the lowest description, who, in spite of the excellent police establishment in Paris, carry on their evil practices in concealment, and thus impose their manufactured trash upon the poor working community. That such an adulteration would never reward any person in this country is obvious, from

the circumstance of our lower class being fonder of beer and spirituous liquors, than of wine, even of the best description; and also because it would never answer the end of any wine merchant to introduce and pay duty for wine fit for such adulteration. To make weak and light wine strong, requires neither secrecy nor adulteration, and may always be effected by the mixture of good strong wine.

That grape wine may be imitated, is proved by our British wine makers, who legally profess to imitate any of the foreign grape wines; but although many have succeeded in this art, and have brought their wines to great perfection, yet they have never yet been able to communicate to their wines the essential qualities of genuine grape wine.

It is often the case that, in the shipments of wine we receive from our foreign correspondents, there are wines of a much higher flavour than others, and this circumstance has led many to suppose that this high flavour is the effect of art. This however is not the case; for the fine flavour in wine depends by no means on art, but chiefly on the soil that produced it, and on the treatment of the fruit as it ripens during the vintage, and finally, during the first and most important fer-

mentation. There is a difference in adulterating and in flavouring wine, and although neither the one nor the other ought to be practised, yet the more innocent part, namely, the flavouring of wine, has been successfully pursued for some years by the Moselle merchants, who, by a process similar to that of our home-made Frontignac wine, with the elder flower full blossomed, put in fermentation with refined sugar and barm, have prepared a nostrum, wherewith they have flavoured low-priced Moselle and Palatine wines, and introduced them as real Muscatell Moselle wine, with enormous profit. Having frequently visited the best wine districts on the Moselle, and having convinced myself that the very limited quantity of wine made from the Muscatell grape during a rare season of extraordinary fine weather, when that grape attains perhaps only the tenth part of the flavour which the more congenial climate of the south of France might communicate, I have found that the quantity introduced into London from those parts was far greater than the growth, and begun to watch and to taste some of those pretended Muscatell Moselles, imported by myself from very respectable houses, and from a slight analysis, I discovered that, although they had succeeded in extracting the aromatic part of the elder-flower, they had not been fortunate enough to destroy the strong bitter

which that blossom contains, and therefore wine so flavoured, after having lost this artificial aroma, and the sweetness communicated by the sugar, began to exhibit its substantial and very offensive bitter in wood as well as in bottle, and became, of course, any thing but a pleasant beverage. Having accidentally had an opportunity of conversing on this subject with one of those Muscatell merchants, from whom I had purchased some of that sort of wine, and having received a very unsatisfactory reply to my simple question, accompanied with rather more uncourteous behaviour than it merited, I was determined to make a trial with the elder-flower myself, with a few gallons of wine, and amply succeeded, not only in extracting the aroma from the blossom, but also, by a very slight fermentation during that process, was able to prevent the astringent bitter of the flower from entering into the composition. Having thus far experimentally proved that Muscatell Moselles are artificially flavoured, I leave those who admire them more than myself to deal in them, and to drink them at their pleasure. The ingredients being perfectly harmless, the wine itself, *if it was originally good*, will not injure the constitution; but as pure Moselle may be procured from the same houses, my advice would be, to give the preference to the latter.

If, therefore, wine is at all adulterated, it is done before it reaches this country. The Spanish and Portuguese wines, made up to please the palate of the English consumer, are mixed with a certain quantity of brandy, and although that ardent spirit might not always be of the best kind, yet the purest of those wines imported into this country, would not be saleable without it. Habit has rendered highly-brandied wines palatable to the inhabitants of this empire; and although, in my opinion, a pure and genuine wine possesses all we ought to look for in wine, and as history informs us, was the beverage of this country a few centuries ago, yet as climates change as well as customs, a warmer sort of wine was introduced, and will, in spite of all the recommendations of the German and French wines, remain the standard wine of this country.

French wines, especially those grown near Bordeaux, are much admired, the white at table, and the red as a *bonne bouche* at the dessert; but are not generally admired as much as Sherry, Madeira, and Port wine. Many of the valuable Bordeaux wines, such as Chateau Margaux, Lafitte, Latour, and the violet flavoured Haut Brion, are certainly made up for this country by the factors; but instead of brandy, or any other ardent spirit, they

receive their fulness from a slight mixture with excellent Hermitage. The most respectable houses at Bordeaux never use any other mixture; and as their credit depends on the wine they send us, they may be fully relied on. The inferior factors may use *beni Carlos*, and other abominably strong mixtures, to make up their exports; but as I have already observed, their wines are as much rejected by the respectable wine merchants of this country, as their importuning agents are despised.

Some of the wines grown near the Rhone merit every praise, for flavour and strength: of these the white and red Hermitage are first-rate wines. The Cote Rotie, grown near Ampuis, on the right bank of the Rhone, is an excellent wine; it has an agreeable perfume, and is much admired by connoisseurs in this country, for its colour and strength, which latter makes it keep good longer in this climate than many other French red wines.

No liquor is purer than wine, when it has undergone its proper fermentations, and these continue in good wine as long as the least impurity exists in them. It either discharges the same through the bung holes, or precipitates it to the bottom of the cask; the suspicion therefore entertained, that wine merchants adulterate their wines, may easily

be removed by the following simple trials and observations.

Champagne wine, if pure, and free from any mixture not belonging to it, forms a star in the centre of the effervescing froth, when poured into a glass standing on a table. Poor and hungry wine, introduced as Champagne, is thus easily discovered, as are also home-made imitations, either from the apple, the pear, or the gooseberry, many of which, in their sparkling quality, approach to the real Champagne so closely, that they have deceived many pretended connoisseurs. All other wines may as easily be tried by slaking a piece of lime-stone, and bottling the water when perfectly transparent for use, as occasion may require. The proof consists in filling half a wine glass with this water, and the other half with the suspected wine; should it turn black and muddy, it is a sign of impure wine. This will in great measure operate against all mixtures, without sparing those wines which, from the nature of their growth, have not sufficient body to bear the removal from one place to another, without a certain admixture of ardent spirits.

In judging of wine, great precaution is required, but above all, a better knowledge than many pre-

tended judges possess. The least sediment is too often interpreted to the prejudice of the wine merchant; the wine is declared to be adulterated, and the sediment to be sugar of lead, or some other injurious drug. In order to remove these suspicions, a small quantity of sulphur may be boiled in lime water, and strained through a fine linen rag; when cold, a few drops in a glass of the wine will change it immediately to a brown colour, and thus discover the least particle of lead. This chemical operation, although sure in its effects, has in my firm opinion never been successful in wine, for I cannot believe that wine made from the pure juice of the grape, stands in need of sugar of lead to sweeten it; and no other benefit could be expected from the lead, whilst much evil might result from a solution of the same in wine. Having dwelt at considerable length on the cause that produces the sediment in bottle, and on its component parts, I beg to refer my reader to a foregoing chapter, which I trust will do away those unnecessary fears that many entertain.

CHAPTER THE THIRTEENTH.

ON THE BOTTLING OF WINE, AND HOW TO PRESERVE IT IN BOTTLE IN GOOD CONDITION.

THIS operation is perhaps of as great interest as any treated of in this treatise, and in no part of the work of the wine cellar are greater errors committed, than in the bottling and subsequent treatment of wine. In order to perform this necessary work with success, the exact age of the wine should be known, so as to enable the wine merchant to judge of the propriety of bottling it without the risk of paying dear for his inattention. For more ample directions on this subject, I beg to refer my reader to a preceding chapter, treating on the management of wine in general, on which the present operation depends for its success.

It would be unfair, and even invidious, were I to charge our respectable foreign correspondents with

intentional fraud, for expediting their wines to us in too green and unfinished a state ; yet this practice prevails too much amongst those shippers who do not very greatly value their reputation. The receiver of such wines, in full confidence of the integrity of the shipper, bottles them, and before he can reasonably offer them for sale, is obliged to start them again, in order to make them undergo their last fermentation. This error in the shipment of unripe wines, although interestedly committed by the more unprincipled shippers, cannot be laid to the charge of those respectable houses to whom we look for the best wines, but rests in great measure with ourselves ; for, during a fine season, every respectable house here, being desirous of obtaining a good share of the excellent wines of a superior vintage, of which our foreign friends never fail to give us a splendid account, accompanied with their list of suitable prices for early shipments of the same, gives its orders suitable to the consumption it may have for such wines. The factor or foreign correspondent, having duly secured the wine for safe transport, leaves the future management of it to the merchant for whom he is concerned. As good vintages seldom follow in swift succession, the produce of a choice one remains but a short time in the store of the grower or of the factor, and therefore the sooner applica-

tion for those wines is made, the better. For it would be unreasonable to suppose, that those foreign wine houses should keep their wines to await the orders of their neglectful correspondents, when at the same time they can make profitable sales. These wines being therefore shipped off in their full fruity state, will require the greatest care on their arrival.

Three years, and with some very full wines, from four to six years being generally requisite before they throw out a promising prospect to the merchant for the developement of their superior qualities, very few casks of such wine are kept by the factors, and those are seldom disposed of in their original purity, unless the prospect for the next succeeding vintage should be a fair one. The few hogsheads so kept are, in case of a failure of good wine, preserved for the purpose of mixing with the inferior wine of the next vintage; and but too often find their way to our cellars as wine of the best vintage. It is therefore one of the first cares of the wine merchant to endeavour to secure good wine from the grower or factor, and an equally great care to manage it well, when it comes into his possession. These observations are chiefly applicable to wine imported in its pure state, the goodness of which would make its price advance

so rapidly, that a very short time after the vintage the price would be so high, as to prove to the importer, if not a certain loss, at least no benefit.

All those wines, the future developement of which for the table depends on the admixture of ardent spirits, may with great safety and propriety be left in the keeping and care of the factors, until the effect of the brandy has mellowed them, so as to make them throw out their fruity and vinous flavour as a conquest over the spirit, which is added to strengthen and preserve them a much longer time than they would keep, if imported in their natural alcohol. The richness of Port wine is increased by an early infusion of brandy, which checking the second fermentation, by which the saccharine matter is converted into spirit, becomes one of the chief qualities of that wine, which is thereby rendered full in flavour and wholesome in its nature. Too much cannot be said of the great advantage which those houses possess over others, who during prosperous vintages make early purchases before the best growth disappears from the markets. The sums they advance upon those occasions will pay ample interest, and place the holder in a situation beyond that of either the grower himself or the factor, who when their best growth is disposed of, have only to hope for

another good vintage to replace or fill up the vacancies in their stores. Should such vintage fail, it is out of their power to supply their friends, who may have neglected to purchase early, with any but second or third growth, and at prices not altogether so advantageous to the purchasers. There is also another, and still greater advantage arising out of early purchase, which is, that the judicious wine merchant having his wine under his own management, becomes fully acquainted with its ripeness and fit state for bottling, which enables him to bring some of those valuable wines to market fully ripe, and with that superior *bouquet*, which those wines acquire after they have been their proper time in bottle, and which raises the Hock wines of 1822 and the Clarets of 1825 above any vintaged for many years previous to those dates, and exceeding in all their best qualities all those vintaged since. In fact the great study of the wine merchant of this country in particular, being to possess in his cellar a stock of ripe and approved wines of the most admired vintages, he cannot too early turn his thoughts to the bottling of his wines, when he considers them fit for it. In this operation every care is required to see his bottles clean, dry, and free from the least smell, to examine his corks, to reject the worm-eaten, and to use only such as will not endanger the safety of his

wine for keeping the required time. When wine is thus carefully bottled and packed in bins, it should never be disturbed from that situation until it becomes fit for sale; for although wines once bottled may by many be considered as fully finished, and not requiring further care, this security will soon prove injurious to them if they slacken in the least in their attention. Port, Sherry, Madeira, and in short all those wines that are mixed with brandy, require rest and time in bottle before they can with propriety and with credit to the merchant, be placed before good judges; but above all, the greatest care is necessary to keep the purer wines of France and Germany undisturbed in their bins, up to their fullest maturity; for to remove such wines often, and more particularly Champagne, would materially injure them. The cleanness of the cellar, and neatness in the packing or stowing away of wine, are at all times greatly to the credit of a cellarman, but the benefit arising from it to the wine is still greater. The holders of wine of celebrated vintages may truly consider them as treasures, for whatever pains the foreign travellers may take to extol their own stock of wine, they are at this distant date from the good Rhenish of 1822, and the good Claret of 1825, quite unable to supply

the trade with those wines pure and unadulterated, such as they are now to be met with in the wine merchants' cellars of this country, especially of those who have made timely purchases.

CHAPTER THE FOURTEENTH.

ON THE MIXING OF WINE, AND ON SOME OF ITS DEFECTS.

It is essentially requisite that some of the wines more generally drunk in this country, should be prepared to keep in our climate, and to please the consumer. It would be equally difficult and unpleasant to the merchant of this country to have that operation to perform here, and therefore he cannot do better than confide it to the foreign factor, who, from experience is acquainted with the proportion of spirits necessary to strengthen those wines, according to their natural want, which depends on the soil that has produced them, as much as on the vintage itself. The consumers of such wine differing as much in their taste, as the wine does in flavour and strength, it would become a most difficult task in the merchant to give satisfaction, and therefore those wines coming properly prepared for our climate, as well as for the palate of

the consumer, the merchant has only to exercise his judgment in their selection, in order to meet the approbation of his friends in his sales. To obtain this approbation is at no time very easy, for in a commercial country like this, we have persons, who from a long residence in some of our distant colonies, have become habituated to the beverage of those countries, and who, on their return to the mother country, expect their wine merchant to furnish them with such wine as they drank in Calcutta, or some other distant parts. Others who, during a hasty trip through some of the celebrated wine countries of the continent, have tasted in a certain town or village, a wine that pleased them, call on their return at the cellars of respectable wine merchants, taste one and a second, or even a third sort, and finish by condemning the whole as bad wine, because they cannot meet with that good and cheap wine, of which they pretend to have retained the flavour, after having tasted it once accidentally on their tour. Unpleasant as such conduct must be to the feelings of respectable merchants, yet the desire of pleasing their customers might induce some to endeavour, by a mixture, to produce the wine described by such travellers. In this case, I would earnestly advise them to leave well alone, and rather to forego such custom, or rather the sale of such wine, than

attempt to mix it. The wine drunk in India is prepared for that climate, as much as Port, Sherry, and Madeira are for this climate, and for the habits of the people. The wine sent to Russia differs materially from that drunk in the south. The Claret and other precious wines of the growth of France, drunk in Paris, differ widely from the Claret which we receive in this country. Climate therefore, transport, and our constitutions, all bear a share in the cause of this difference. This mixture of wine being more the business of the factor than that of the wine merchant, a second mixture attempted in this country with wine already prepared for the climate, would be attended with a considerable risk of ruining it, and would never please the consumer as well, as if it had been left in the state in which it was imported.

Government having allowed the mixing of wine in the docks or bonded cellars, with French brandy, duty free, this gives the experienced wine merchant an opportunity of strengthening weak wines, and of fitting them to the taste of his friends. By this permission on the part of the Government, the charge made against the Italian, Spanish, and Portuguese factors, of using bad brandy or spirits, distilled from perished fruit, &c. in the mixing or preparing of their wine for this

climate, may be obviated by the importation of the genuine juice of the grape, and by the addition of good brandy on their arrival, in order to fit them for sale. This may all sound well in theory, but it will never succeed well in practice. The brandy will predominate; it will completely change the nature of the wine; for, being shut up in a close bonded cellar, and in small packages, it has not that chance of divesting itself, by an imperceptible fermentation, of the fiery parts of the brandy, which it has in the climate of large packages, and well regulated store-houses of the foreign factors. Much has been said, and much is still said about the bad quality of the brandy used in preparing foreign wine for this country. This charge may have been well founded, at a time when the whole management of wine, from the press to the moment of its shipment, was badly conducted; but the great improvements in the cultivation of the vine, in the vintaging of the fruit, in the more careful fermentation, and in short, in the whole care of the wine by the planters, gives the factor but little trouble in preparing his wine to the palate of his friends on this side of the water. The great competition in trade which now exists in every commercial country, has roused that sluggish indifference which formerly existed under prohibitory laws, by which certain privileges were

granted to close companies or individuals : all are now on the alert to prepare their wines with good and wholesome materials. The distillation has succeeded in the production of better wine, and the brandy now used in the foreign factories being of the most approved quality, the continual charges preferred by writers against the factors, are easily refuted by the excellent wine they send us, provided we pay them a suitable price. It is true that some of the wines imported may have a flavour not altogether agreeable, which may arise from various causes, and cannot with justice be attributed to bad flavoured spirits alone : it is therefore advisable to leave those mixtures to the experienced factor.

Many persons who are fond of trying such fruitless experiments, might be inclined to suppose that wine of a superior flavour would, by a mixture with *good* wine, but without flavour, easily impregnate the same with its own *bouquet*, and would thereby increase the bulk of fine flavoured wine, to the great profit of the owner. This experiment will certainly fail, and the wine so mixed will in a short time completely lose the borrowed flavour, and will hasten to its former state with a weakened body. The surest way for the wine merchant to follow, is to take all the care he can of

his fine flavoured wine, and to bring it to a speedy sale, whereby he will secure the approbation of his customers, and will preserve the strength and other good qualities of the wine, which he intended to flavour with a *bouquet* not altogether agreeing with its other good qualities. I have in a preceding chapter observed, that the flavour in wine is derived more from the soil in which the grapes are grown, than from the fruit itself; for it is a well-known fact, that the same sort of vines planted in one particular soil, will not produce the same flavoured fruit if planted in a different soil, although the aspect and the attention paid by the vineyard-man might be the same. The impregnation of the soil with atmospheric air, carbonic acid gas, lime, potash, and humic acid, will operate differently upon the fruit, than would iron or any other metallic substances; it is therefore well to leave well alone, and to sell to our friends the wine in the purity in which we receive it.

It does however often happen that the importer meets, in a parcel of good wine, with a cask of that which is not so full-bodied as the rest, but yet is far from deserving to be numbered amongst inferior wines. In this case the mixture of the same with a cask of the same wine, but of very superior strength, becomes the duty as well as the interest of the

importer, without being prejudicial to the consumer. To mix inferior wine, and in some cases wine in its declining state, with good wine, by way of improving it, is hopeless; and if attempted, the bad wine will destroy the good, and will in a short period produce a *deadly* fermentation.

Having already stated that the mixing of wine for the respective climates to which it is deported, belonged to the factor more than to the importer, and having also cautioned my readers not to put implicit confidence in the keeping of those wines, and particularly in the more genuine wines of France and Germany, but to pay them every attention, it may perhaps be of service to make the following observations. Inattention during and after a good vintage, in the management of wines, subjects them to many natural defects, which operate against their keeping the usual time expected; and as those defects seldom shew themselves before the last fermentation, denominated the imperceptible forms the character of the wine, they ought at once to be corrected before their strength for keeping becomes exhausted by an unnatural agitation. This sort of commencing decomposition in red wines, of whatever climate, can only be arrested in good season by mixing a judicious quantity of brandy therewith, whilst white wines may be saved

by mixing a small proportion of the best spirits of wine therewith, and by bringing both to a timely market. The factors cannot in these cases always foresee the consequences, and can therefore bear no blame should such a circumstance happen. There are wines which, during a long and dry summer receive in their growth a greater share of natural alcohol or spirit, than it is usual to expect during ordinary vintages. In this case the factors lower them with less powerful wines, so as to bring them to a more speedy market, but would do better if they were to allow them their natural time to ripen; which, although not near so profitable to them, would produce a wine of the very first quality. The soil, as I have frequently had occasion to mention, communicates to wine a peculiar flavour, which is particularly pleasant and desirable in some of the wines used in this country, but most unpleasant to travellers when they meet on their tours with wine peculiar to certain districts, which has a most offensive taste. This I have experienced in some of the southern provinces of France, and also near the Lake of Constance, where a wine, called *See Wein* or Lake Wine, grows, and partakes of the nature of the soil in such manner as to become from habit a favourite wine of the natives, while it is most disgusting to strangers. It would be an

unsuccessful attempt for any one to change the natural aroma, good or bad, of any of those wines by an admixture with any other of a different sort; for it would constantly teach the adulterator that Nature will be Nature still, and will not suffer the interference of man. The natural taste would ever predominate, as much as the roughness of wine grown in a stiff loamy soil would, if even the admixture were made with the mildest of all wines. Many apparent defects in wine disappear in time, as their better qualities develop themselves, and time, care, and patience will alone effect what human ingenuity and art cannot. This appears in no sort of wine more than in Port, Sherry, and Madeira, which by age and good attention, attain their full perfection and mellow state. I have dwelt longer than I intended on the mixing of wine, in order, if possible, to do away with the erroneous notions of many, and often of men of experience, that the wine merchant in this country adulterates his wine by injurious mixtures. Such opinions ought to be abandoned, when it is considered that no wine merchant can possibly increase the bulk of wine in his cellars without its being observed by the excise, and also that his character should at all times stand in opposition to a paltry advantage of the

moment, for such only would it be; whereas the ruin of his character and trade would be a lasting consequence. There follows from all such attempted mixtures a loss that not even time can replace, which is that of character.

CHAPTER THE FIFTEENTH.

ON THE DISEASES TO WHICH WINE IS SUBJECT, AND THEIR CURE.

THE diseases in wine are natural or accidental. The natural ones are chiefly those of which I have spoken in chapter 7th, arising from the different and necessary fermentation, which, with the wine turned ropy, are termed natural diseases. The accidental ones arise from frost, bad fining, musty casks, and bad cellars. The cure of the natural ones, depends entirely on the attention paid to the wine, which will prevent all bad consequences during the time the fermentation lasts; but should acidity take place, either from inattention or some accident, provided it be not too far advanced, a quart of spirits of wine in a hogshead will often recover white wine, and about half a gallon of brandy will recover a hogshead of red wine. As in both cases the forerunners of evil, called messengers, have

doubtless taken possession of the vacuum on the wine, they must be carefully cleared away, as stated before, and the wine racked. In performing this office, a piece of crape tied round the mouth of the racking cock, will prevent any impurity from entering the wine to be preserved. The above spirits may then be mixed with the wine so cleared, and for the better security of the same, and to prevent atmospheric air from entering on the surface, for which sulphur matches used to be applied, a wine glassful of sulphuric acid, poured gently on the surface of the wine, will frequently preserve it, without in the least endangering the health of the consumer.

Putridity is almost hopeless, and discovers itself by the loss of colour in the wine, and by the continual dampness of the outside of the cask, occasioned by the oozing of the wine through the seams of the staves. The cause of this decomposition arises from the loss of a due proportion of its constituent alcohol, owing to the absence of which, its preponderating sugar and saline matter are deposited with the lees. If this change in the wine is observed in due time, the remedy applied to acid wine may sometimes be successfully tried, although the result may remain for ever uncertain. It frequently happens that wine

in cask, as well as in bottle, becomes bitter and of a most unpleasant flavour, which ought never to alarm its owner. Should this happen with wine in cask, the surest remedy is to rack it, and if with wine in bottle, to lay it by for six or eight months will make it recover its former flavour. If the loss of colour takes place in young wine, it is extremely hurtful, whilst old wines of a certain age, by loss of colour, are rendered wholesome.

The unnatural or accidental diseases in wine greatly injure it. Thus, if exposed to frost, the carbonic acid, saccharine matter, and alcohol separate from the water; and the wine, when thawed, will require brandy to restore it. Bad fining communicates a most unpleasant flavour to wine, of which it is seldom perfectly cured. The musty taste of the cask often communicates a similar flavour to wine, but this is easily cured by racking it into a clean cask, well seasoned with brandy. Wine placed in a bad damp cellar with confined air, cannot be too soon removed, if it be worth preserving, otherwise it will make rapid progress towards putridity. There are many other accidental causes that contribute to the decomposition of wine, which should never escape the attention of the wine holder, but more especially that of the

wine merchant, who frequently embarks his all to obtain a cellar of well-ripened wine, and who, from such unforeseen accidental causes, might suffer material loss.

It is customary in some wine countries to expose wine to freezing, for the purpose of separating the water from its more noble qualities, and thereby to obtain an extra wine, to serve as a *bonne bouche*. This is done by exposing a cask of good wine in an open yard or garden, to the severity of the cold, during three or four days and nights, when the watery part will form itself into a coat of ice, so as to leave the alcohol, &c. to swim in the centre of the cask, in which state it is drawn off, and preserved in stone bottles. Although this may in most instances be the act of a *bon vivant* in a country abounding in wine, it is also a certain remedy for saving such wine as, from the derangement of its component parts, shew symptoms of a speedy decomposition. The sacrifice in both cases is great, for which the epicure is fully prepared, and necessity reconciles the other sufferer to his first loss, when he is sure of saving the better part of his wine from decomposition. I have frequently tasted this kind of wine in Alsace, where many of the more opulent proprietors indulge in it on particular occasions, and must confess that it never

proved a luxury to me, but rather a beverage too intoxicating to grace a festive board.

There is a natural roughness in some wine, communicated to it by the soil in which it was produced. This, provided it be free from acidity, will in time soften down, and the wine will become very superior; but, as white wines improve but little in bottle, neither rough nor sweet wines should be bottled until they are become mellow in wood, or they will long, if not permanently, retain the above qualities.

The growers, as well as the factors in France, are most particular in the management of their white wines. Their aim is to keep them as pale as possible; for which they employ various methods, all of which no doubt answer for their local consumption, but will not succeed so well for deportation, where a longer period of time is required before the wine comes into use; for the ingredients used in fining will rise in bottle, to the disadvantage of the consumer. As their fining consists of milk mixed with isinglas, and in many instances of blood, it is a well-known fact that, though such fining is a powerful means of clearing wine, when other more congenial fining has proved fruitless, yet it has its latent evil; for, after a short period,

the sordid remains of the milk will be developed in a concrete and coagulated curd, the wine will be rendered turbid in bottle, and there will be no promise of a healthful keeping. Blood used in the fining will soon after bottling become infected with floating impurities; and if not performed by an experienced cellarman, will communicate a bad smell and taste to the wine. This evil, I am confident some of my readers have experienced in French white wines, especially if imported in bottle from the houses of those agents spoken of in my 3d chapter. No white wines kept to their proper age in wood, retain the pale state required by some of the French factors, but will shew their proper time for being bottled, by the straw colour which they receive from age, and which is nothing but the innocent extract from the cask. Many of the Spanish and Portuguese white wines are however coloured by art for their respective markets, and to please the taste of the consumers.

CHAPTER THE SIXTEENTH.

ON ADULTERATION OF WINE, AND SOME USEFUL REMARKS ON WINE IN BOTTLE.

It is a curious fact, that in nearly all the wine countries, where from its abundance one could hardly suppose that it would remunerate any one to adulterate it, in defiance of the most severe laws, adulterations are practised. The parties concerned in them regularly supply their agents in those parts of the Continent, and probably beyond the seas, where the vine does not prosper, and thus carry on a trade, which proves very injurious to the more honourable merchant. The city of Hamburg is the great emporium for those wines. To this place manufactured Tockay wine is sent from Hungary, besides immense quantities of Rhenish, French, and other adulterated wines. Independently of these consignments, the Hamburg wine makers purchase annually great quan-

tities of the lowest Port, and Teneriffe wines in our markets for their wine manufactories, which find their way to our colonies, and not very rarely, as I have been credibly informed, into the London market, as superior wines under different titles. The immense quantity of wine vintaged during a successful season, and which on the spot is purchased at very reasonable prices, and the inferior growth at still lower prices, one should think would be a bar to those abominable practices, but daily experience proves the contrary; and although on the banks of the Rhine the laws severely punish the perpetrators, yet they renew their work, and smuggle their produce to different parts, with no doubt a good profit. Much of this manufactured wine is sent off in bottles, neatly packed in cases of from two to six dozen, and being sold cheap, it is sure of finding a market.

In this country, where the principal wine cellars are filled with bottled wine, it is of material consequence, that each sort should have that attention paid it, which its particular nature requires. In no case are greater errors committed than in this. Wines from different climates, of different ages, and widely differing from each other in quality, are most injudiciously packed together in the same cellar, have the same attention paid them, and in

this unnatural state become the boast of the proprietor for their *great age*, which is sufficiently denoted by the swarms of lively animalculæ, that rise in dirty waves in the saw-dust in which the wine has been buried for many years. This should not be, and I may venture to say that many wine holders, who are not too tightly chained to old methods and fatal prejudices, will agree with me, that the boast of possessing *old wines* ought to give way to the more reasonable boast of possessing good and wholesome wines, fully matured in wood previous to being bottled, and not imbedded for years in saw-dust, at an immense loss of interest of money, and a loss equally certain sustained by the decomposition of many such wines, as the natural result of their duration, which often happens before the owner can either dispose of them or make use of them himself.

It has been, and is still the practice with many, to bottle Port wine before it has deposited its impurities in wood. Two or three years are hardly allowed to that powerful wine, to disengage itself of that weight of lees, tartar, and too abundant sugar, which all pure liquors in their progress to maturity reject, before it is confined in bottle, there to make this unwholesome incrustation, to serve in time as demonstrative evidence of its age

and perfection. This has not been so much the case with the judicious wine merchant, as with the private holder of wine, who has often carried the passion of possessing a well stored cellar of wine to such a length, that, unacquainted with the powerful operations which wine in general has to undergo before it attains its full perfection, and with its certain decline after the allotted period for its duration; allured also by the fame of a fine fruity vintage, and by the recommendation of his friends, used to lay in a valuable stock, to come into use after a certain prior importation. In this manner, many of my friends have suffered severe loss by the decomposition of such wine, long before they could make use of it. This evil, for so it may justly be called, is now partly remedied by the modern mode of vintaging, fermenting, and more fully purifying *Port wine*, more particularly in *wood*, which leaves but a trifling deposit in the bottles, and renders the wine transparent and wholesome. That dark tartareous incrustation in the bottles, the celebrated *bees' wing* and the like, formerly so much the boast at the convivial table, is so at present with those only who are of the number of the above ill-advised holders of wine, which ought to have been drunk when in a better and more wholesome state.

As long as the colour remains in red wine, it makes deposit in wood as well as in bottle, until it returns to the pale colour of the juice of the grape. This being the natural colour of the wine, proves that the red, although the produce of the same vine, is borrowed and communicated by the chemical process of fermentation. During this fermentation, the saline and woody parts extracted with the colour from the grape, must be properly separated from the wine before it becomes a clean and wholesome beverage. Here it might be asked why wine, when it has fully deposited that which does not belong to good wine, and is become pale or tawny, should in this state of perfection so soon hasten towards its entire decomposition? This very proper question can be more easily answered, than such wine can be arrested in its natural progress; and by referring the reader to a foregoing chapter, where I hope it has been fully proved that the duration of wine depends on the soil in which it grows, and on the weather, and the manner of vintaging, and more particularly on the treatment it receives when safely housed. Port wine, which not only receives its colour by art, but also a great infusion of brandy during its early days, will not retain these borrowed qualities any longer than the nature of pure wine will admit of, and therefore continues making deposit of the former,

whilst the spirit is gradually leaving it by imperceptible evaporation, and unless made use of before this natural operation proceeds too far, it becomes deserted by its borrowed supporters, turns vapid, colourless, and ends by passing the natural period of its existence as wine. This to my knowledge many private wine holders have experienced, and it will no doubt convince them, that wine that has made its principal deposit in wood, will much sooner become fit for their tables, and save them from great loss and disappointment.

I have already observed that many very respectable houses in the capital, as well as in the country, will probably disagree with me on many points, but more particularly on Port wine, the treatment of which has been as different, as the number of houses in the wine trade are numerous. Hot stoved cellars are preferred by one, whilst in the opinion of another, nothing exceeds a damp situation for the speedy mellowing of his port, and a third steady adorer of old customs finds no wine so full, so fruity, and of such exquisite flavour, as that which has been bottled with all its load of saline, saccharine, and woody colour stuff floating in it. This may with many pass as a matter of opinion, but as a practical man I cannot subscribe to it; and having chemically, and I hope rationally,

illustrated the improved mode of cultivating the vine, and of vintaging, and pointed it out to the best of my own experience, and that of still more experienced practical men, who have favoured me with their opinions on the subject, I shall ever consider the modern mode of treating all wines, but more particularly Port wine as the most natural, the most congenial, and the most economical. One proof that Port wine, treated upon the old principle, has not succeeded well, nor been a fruitful speculation to some houses in the wine trade, is their having of late years offered many hundred dozens of old bottled Port to the trade at a considerable sacrifice, at least of interest.

The genius of man ever actively bent upon discoveries and subsequent improvement, although unable to improve the sun and climate of any country, has nevertheless within the last twenty-five years wonderfully succeeded in assisting the natural soil, by chemical and agricultural experiments, in none of which have his labours been more successful than in the improvement of the vineyard, where with proper manure he has strengthened the vine, and made it produce fine and sound fruit. By constant attention he discovered that the blossom makes its appearance much earlier at the bottom of the vine than at

the extremity, and that the berries appear there also earlier than on any other part of the plant; this being the effect of the internal heat reflected from the earth upon the fruit, aided by the influence of the sun, whereby those grapes ripen much earlier, and in greater perfection than the rest. This led him to the fortunate conclusion, that to vintage twice in the same vineyard would produce two different sorts of wine; of which during a favourable season the first would prove far superior in aroma and strength to the second vintaging in the same vineyard, and from the same plants, without in the least injuring the wine made during the second vintaging, which is still in every respect as good as the wine made in the neighbouring vineyards, where the careful selection of the early ripened fruit has not taken place. These and many other valuable improvements in agriculture have been the happy means of producing a wine, durable in its natural state, and wholesome to the consumer.

CHAPTER THE SEVENTEENTH.

MISCELLANEOUS ADDITIONS TO SUBJECTS TREATED UPON IN THE PRECEDING CHAPTERS.

ON FINING.

ALTHOUGH I have dwelt considerably on the fining of wine in a preceding chapter, yet I consider that the following observations will be found useful. The tannin or woody astringent particles which float in new wine, have often been difficult to precipitate ; to remedy which, milk, blood, and in many instances, strong jellies prepared from animal matter have been resorted to, to clear it of its impurities. Thus far no doubt success has attended the operation, but the wine so fined was never so well flavoured as the wine fined with isinglas, the whites of eggs, and marine salt. In all such obstinate cases, the judgment of the cellarman must direct the operation, because wines of the same kind, and of the same shipment, often

require different treatment, and new wine requires at all times a stronger dose than old. If this be properly attended to, even the most obstinate cases will not require milk, blood, or animal jellies, which may with more propriety be employed in the fining of cider, beer, or vinegar. The only deviation from isinglas and the whites of eggs upon which I have ventured, has been to use in French wines, in obstinate cases, as a fining about eight or ten eggs, with shells and yolks beaten up with marine salt, and have succeeded well, but can by no means recommend this as a general practice.

ON THE MIXING OF WINE.

No regular rules can be pointed out for the mixing of one wine with another, whereby to improve its quality. This operation must chiefly depend on the taste of those for whom such a mixture is attempted. Here, as I have stated, in making the mixture of mild wine with harsh wine, if such wine be not speedily used, the harshness of the one will preponderate over the mildness of the other. It is therefore advisable to let the mixture take place, so that one wine, by its abundance of good qualities, shall supply the absence of the same in the other, without however changing its character completely. In this cellar work, as well as

in all other operations about wine, cleanliness cannot too much prevail. The atmospheric air ought to be carefully excluded from wine so mixed, by clean linen round the bungs, and in the course of a month such wine will be fit to be introduced as an amended wine.

ON BOTTLING.

I have already observed that it is wrong to attempt to bottle green or young wines, with an expectation of introducing them successfully. They will disappoint the wine merchant's expectations, and will displease his customers, by becoming sparkling, ropy, and ultimately sour, all arising from their not having gone through the required operations of nature, by making that deposit in wood, which, if expected in bottle, will prove ruinous in nine out of ten attempts. The prevalence of southerly winds, as well as unsettled, rainy, and stormy weather, being ever fatal to the bottling of all wines, is more particularly injurious to those that are young: it is therefore of importance to the trader, as well as to the private gentleman, not to let pass the opportunity of performing that work on a fine day, and at those particular seasons, which I have pointed out in treating more fully on this subject.

ON FERMENTATION, AND HOW TO PREVENT IT.

As wine in cask, as well as in bottle, is much affected during an intense summer heat, and more particularly during lightning and heavy thunder storms, the following simple expedient will prevent the injury which wine of a delicate nature, and too often the stronger kinds, would otherwise sustain in the best of cellars. Take half a pound of powdered sulphur, or as much as a pound if your cellars are extensive; distribute it in three or four earthen pans; place them in different parts of your cellar, and light the whole the last thing in the evening; make a hasty retreat, to avoid suffocation, and close every access of air to your cellar, and you will find, on entering the following morning, that the sulphur has destroyed all damp, and created a wholesome atmosphere throughout the cellar, whereby the healthful state of the wine is promoted, and if this is repeated once a month, the influence of foul air and of intense heat will not be felt. As sulphur is very little, if at all subject to electrical influence, it will be of great service to wine, if the above remedy be resorted to during thunder storms. I have in its proper place fully explained, that a neglected acid fermentation will ruin wine, and that the continual changes in

the atmosphere and temperature, will not promote its goodness, but will too often bring on an undue fermentation. I cannot therefore too highly recommend fumigation with sulphur in wine, which, if even performed once every week, will be of still greater service than once in the month.

ON RACKING.

I have in its proper place observed, that racking instead of weakening wine, as is generally supposed, is of infinite service to it. This must however be understood of such sorts as have not fully deposited their impurities. It is a well known fact, that whilst one wine excels in body or strength, another excels both in strength and aroma; and in short, that as they differ from one another in their natural qualities, the operation of racking ought to be performed, and will therefore ever require careful attention, so that by this operation the body, aroma, and age, may not suffer. Wine on its lees will benefit by racking, whilst wine fully matured would lose much of its strength by frequent racking, although it would benefit by becoming mellow. Red wines, whose natural duration is not that of white wines, ought to be racked sparingly, as well as cautiously.

THE END.

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