

## VARIETIES OF VINES.

### CHOICE OF LOCALITIES.

Advance Sheets

OF THE

### CHIEF EXECUTIVE VITICULTURAL OFFICER'S ANNUAL REPORT.

This being the season when vineyardists in all parts of the State are selecting the varieties of vines which they will plant, and so many new vineyards and additions to old ones are in contemplation, and Mr. Wetmore is besought every day by letter and personal interrogation for advice on varieties and kindred subjects, he has consented to allow the notes of his Annual Report to be published in the MERCHANT in advance. Had publication been delayed until this report appeared from the State Printing Office it would have been of little use this year to most of our vineyardists, and in departing from the usual rule, Mr. Wetmore confers a material benefit on viticulturists, and saves himself much time and labor in giving information orally or by letter, and is able to impart the advice his great experience dictates in much fuller form than he otherwise could.

#### WHAT TO PLANT—WHERE TO PLANT.

Mr. C. A. Wetmore says:

I am continually receiving letters from all parts of the State, asking advice concerning the varieties of vines that should be planted in new vineyards, or the varieties that should be used to improve the products of those already planted by judicious blending. These letters come from so many different places and the problems suggested by their inquiries are so varied that it seems almost impossible to give in one document any adequate guide for all. So much depends on an intimate knowledge of almost infinitely varying conditions of soil and climates, on the purposes, ambitions, and financial ability of planters, on local wants created by plantations already made, and more especially on the resources of our vineyards to furnish cuttings and vines, that I am often conscious of apparent inconsistency in my recommendations. I am often, in the same breath, recommending the cultivation of a certain variety in a certain place and advising the planting of other varieties—knowing—as I may at the time—that the most desirable may not be obtainable and keeping in mind others that may be equally valuable from other standpoints and at the time within reach of the planter.

The day will no doubt come when certain places will become devoted mainly to the culture of certain varieties known to produce the best results; but now we can only estimate within certain limits wherein the best average results may be reached, leaving the future to determine where the highest success is achieved. There are so many ways of accomplishing success in viticulture in any locality that the vine grower is not confined to any fixed selection of varieties of vines. One may believe that quantity will pay better than quality; one may prefer fair quality with good quantity to either great quantity and poor quality, or the finest quality, regardless of quantity; one may even believe that the finest quality

will always be profitable and the safest to pursue, or one may be satisfied that in his locality the finest quality is not attainable and therefore believe that it would be best to compete for cheap prices with large quantity. Again, one may think it safer to produce white wine than to produce red; sweet wine than dry; brandy rather than wine; table or shipping grapes; raisins, etc. And indeed one may prefer to produce raisins but may find that his locality is best suited to wine grapes and vice versa.

My own line of policy has been to advise planters to aim to produce that quality and kind of goods, which their particular localities promise to produce best. I have believed that, if ever we do over-plant grapes, vines, or "over-do the business" as is often talked about, it will be in producing inferior qualities of grapes, wines, brandies or raisins, which the markets will not be ready to take so long as plenty of better quality is offered. In developing a new industry and opening new markets, we must aim, by the tempting quality of our goods as well as also by cheap prices, especially where we come in contact with adverse customs and prejudices, to achieve success. This State has so much land to develop, that can be made to produce superior quality, that I do not believe that this generation will see the day, after we have once produced sufficient to satisfy certain demands, when good quality will be suffered to waste, while poor quality is marketed.

I know that at present it pays better generally to produce quantity rather than quality, but that has been for several reasons, viz:—wine makers and buyers have not yet well learned where to detect good quality until after they have had the wines a good while; the markets have needed all that could be produced; and in most vineyards the grapes producing finest quality, have been drowned beyond recognition in inferior lots. The progress that has been made in the last few years in experimenting with single varieties of vines has, however, been very great and although not appreciable yet in the general markets, it has served to guide many planters in grafting over old stocks and in making new plantations. This process of improvement has been systematized to such an extent that in two or three years more the market can be supplied with considerable quantities of superior wines and brandies—much finer than any now offered in merchantable lots. Then will commence the true competition among wine and brandy producers, and it is hardly fair to presume that the dealers will fail to secure first for their cellars the most desirable goods. Those who fear that the "business may be overdone" should certainly believe that safety is on the side of quality, and danger on the side of inferiority. I myself do believe that the business of making inferior wines, brandies and raisins will be overdone, but that good quality will always find a ready market.

If I am right in this proposition, then I have been right in urging on our people the careful study and selection of varieties of vines—not so much with reference to their fertility as with reference to their value in producing certain qualities after fermentation, distillation or drying. And, as it is known that a certain vine does not produce the same results in all places, and even that where one fails another succeeds, the question of the selection of varieties can only be approximately solved by any process of reasoning in advance of actual experiment. We know, however, certain gen-

eral rules of climate and the adaptations of vines, something but not a great deal about soils, and we know that success is always to be found, if found at all, within certain limits of selection. Advice can therefore be given without too large a margin of doubt. I have always felt my conscience clear when I have told a planter the best that is known, and have always tried to make him understand, whenever he is inexperienced, that his percentages of failure will be less where he plants in accordance with an intelligent theory. This I have always been able to demonstrate by appealing to whatever successes we have attained. Our *Zinfandel* was not propagated by accident, by the advice of intelligent and experienced winemakers, who recognized in it certain good qualities; it has been of great value to us, yet experience proves it to be a failure in many places. It is by applying theory, together with such experience as is now open to study, that we hope to make more rapid progress and fewer failures in the future. Let the beginner not be dismayed by the chance of failure, such as I refer to; his vines will acree at least as roots to graft upon, when he has determined how to improve his plantings. If he is timid, let him plant varieties of known excellence in situations of known results. If he tries unknown spots, let him try to understand why he selects any particular variety before doing so.

With these remarks I will endeavor to outline the known characteristics and uses of the most prominent varieties of vines that have proved their excellencies and uses in various parts of the State, and afterwards to suggest certain combinations for vineyards in different parts of the State.

#### THE RHENISH WHITE WINE VARIETIES.

**RIESLING.**—This is the noble grape par excellence of the Rhine, excelling in its aroma. Properly speaking, there is only one true *Riesling*, viz: that which is by courtesy called the *White Burgundy* of the famous vineyard, where it predominates. Custom has, however, attached the name to other varieties, so that when we wish to speak of this genuine variety, we must now use the word *Johannisberg*, to identify it. This is a shy bearer, requires frequent pruning, and succeeds well only on soil deficient in moisture and strength. (N. B.—I shall speak of characteristics mainly as they are shown in this State, where climatic conditions are different from those of the native homes of the varieties.) It is an early ripener, otherwise it could not succeed on the Rhine. Experience in Europe shows that, as to its aroma<sup>1</sup> and quality when cultivated in warmer countries and situations, where later ripening varieties come to perfection. On the Rhine the greatest perfection is often obtained only when the berries are left on the vines until long after the usual time of vintage. This should not be the rule here except under similar circumstances, viz: where sufficient saccharine is not obtained early. I believe that we shall not succeed in making fine *Riesling* wine of Rhinish type except in such places where overmaturity is difficult to obtain, and where at the time of ordinary ripening the must does not exceed twenty-two per cent sugar. In such places, where the excellence of the product will be, as on the Rhine and as with the varieties used in making *Sauternes* in France, improved by leaving the fruit as long as possible on the vines. What soils are not suited to the *Riesling* we do not well know, but it is a fact that its scarcity is a failure, as to quality of wine, in the greater number of our wine-producing districts, and it is only popular in the counties north of the bay of San Francisco, and west of the Sacramento valley. Other facts for it. It would probably do well in Santa Cruz and San Mateo counties, south of the Golden Gate.

**STYLVANER.**—Better known as *Franken Riesling*. This variety is associated on the Rhine with the *Johannisberg* in producing the finest wine. It is a fine wine grape and, until experience proves the contrary, should be limited to the counties where the *Riesling* is known to make fine wine. This is the variety known as *Green Hungarian* in El Dorado county. The wine made there

from it shows its noble origin, but also that it is not in its true home.

**TRAMINER.**—This variety is also a noble one, but is very little cultivated outside the Sonoma valley. Not much is therefore known about it. An inferior grape, similar in color bunch with the *Riesling*, but sometimes confounded with the *Traminer* in Napa county. Probably the *Traminer* should be limited to the known *Riesling* districts.

**KLEVNER.**—This belongs to the *Pinot* family and will be treated under that head.

**KEINSEBERGER, EBLING, ALBA, WHITE EBLA.**—This variety is the so-called common grape of the Rhine, bearing well and making an agreeable, light white wine. Its quality is sufficiently high to permit its use in vineyards where the *Riesling* is cultivated, contributing to the blend its own excellencies. I cannot find this grape with certainty except in the Sonoma valley in small lots. It is the history of this variety that it improves by being moved to a warmer climate. It enters into the composition of French champagne in some degree. Probably this grape ought to be cultivated more in the Sonoma and Napa valleys, where it is in small quantities. Sonoma, has a small block of this vine. This is the true *Burger* of the Rhine, though I do not use this name here because we might confound it with another variety known erroneously by that name.

**BLAUE ERLAUB, OR ELLING.**—This is simply a dark-skinned variety of the *Keinseberger*. It is a fine wine grape. The English authorities say it is superior in quality to its fairer sister. It makes a very good white wine in Los Angeles county, proving thereby that the authorities are correct in saying that it may be moved to warmer climates without danger. It should be blended with some nobler grape. I believe that in Los Angeles county in places, where the *Zinfandel* does not show good color, the latter should be made into white wine and blended with the *Blau Ebling* and possibly also with the *Burger* (so-called), these varieties being sufficiently planted here already.

**CHASSAS.**—Under this name are classed a number of varieties, but for wine making only one is prominent, viz: the *Chassas Dore*, otherwise known as *Chassas Fontainebleau* or *Gubel*. This is the true *Golden Chassas*; the latter name has been accidentally misapplied in Napa county. In France the *Chassas* on the Rhine, the *Chassas* is not highly esteemed as a wine grape, on account particularly of its low degree of sugar. It is generally used in France as a table grape; in the south of France sometimes for wine, but as such is not highly esteemed. In this State, even in Sonoma and Napa counties, this grape demonstrates the marked difference of our climate, when compared with that of the home of the Rhinish vines. Here it obtains sufficient sugar to make a good-bodied wine, which is highly esteemed by many. I will state it, as a rule that I think is true, that in Napa county the *Chassas* in making good wine in any given spot, we shall find the *Riesling* falling behind the standard excellence of the Rhine. The north slopes should be preferred for the *Riesling* and the south slopes for the *Chassas*. It does not do so well with advantage to the bottom land and the *Chassas* to the hill side.

**GOLDEN CHASSAS.** (so-called).—This variety, well known in Napa county, is, without doubt, accidentally misnamed. It is so well known, however, that it will be with difficulty changed to another name. What its true name is I do not know. Mr. Meldrum calls it the French *Roussin*, but I am inclined to believe that it is one of the many Rhinish varieties, which are little known, and which might easily have been sent here mixed with *Chassas*, or accidentally mis-labeled. It is a very vigorous and fruitful vine. It is a fine wine grape of St. Helena, and would, no doubt, bear planting in places where even more generous vines are produced. It makes good white wine, but not of very high promise unless blended.

**MOSELLE RIESLING.**—I have found this<sup>2</sup> excellent variety only in San Joaquin county. It is very much needed in the *Riesling* vineyards of Napa and Sonoma to impart its



characteristic acids and aroma to blends of the *Johannisberg* and *Franken*. It is, I believe, a better bearer than the last two named. When distilled in Stockton with the *Waltz Prolific*, it was not found to be heavy. On the Rhine it is called also the *Klein Reinischling*. It should not be neglected.

OTHER GERMAN VARIETIES.

MALVASIER.—Known also here as *Black Malvasia*, *Maltoise*, etc. This is no true *Malvoisie*, but came to this country under the name of *Black Malvoisie* from Berlin. It was introduced into Santa Clara county. It is probably a German grape of the *Trottinger* family, of which our

BLACK HAMBURG is a representative. Both these varieties are properly only suitable for the table. The dry red wine which *Malvasier* is disliked by the dealers; some claim to make excellent port wine with it, but the standard of taste for port has not been high, and it has only been compared with *Mission* port. I believe it may be serviceable for port wine, but will need a drier varieties to be blended with it. GERMAN MUSKATELLER.—This variety is different from the French *Frontignan*, or *Muscot Blanc*. It is useful in very small proportions in blending with almost neutral white wines to give a slight aroma. The Schramberg leading vine is a light Burgier slightly flavored with *Muscatteller*.

OTHER WHITE WINE VARIETIES.

Only the *Rhenish* white wine varieties are well represented and studied in this State. The most French and Spanish are scarcely known, which is to be regretted, as we are thereby prevented at present from reproducing the *Sauterne* and *Sherry* types. The Burgundy types of white wine are represented only experimentally. I have, however, in considerable quantities, the best white varieties, of considerable interest, and already distributed in several parts of the State.

BUFOKA.—This variety, now so well known, is evidently misnamed. How such accidents of nomenclature could happen might easily be explained, should it happen to any French or Spanish one, who propagate foreign varieties of vines; the accident is apt to happen in the vineyard in Europe, where the cuttings were made, through the mistake of some workmen; it is apt to happen through similar mistakes in our country, so to even find that we are in danger everywhere of carelessly adopting the names which European workmen erroneously give to varieties which they find growing here and which they think they recognize. Many of our most important varieties, such as *Malvasier* in this State, under names which have been given to them by French or German workmen after they have been grown here for years. For instance, Mr. Chas. Lefranc will tell you that he had great trouble with his importations made about twenty-five years ago, the time in transport being long and labels often being rotted off before their arrival. Thus he had cultivated the *Grenache* for a long time without knowing its name, when accidentally he fell upon a workman from the south of France, who recognized it. Such recognition is, however, generally to be distrusted. I have found by experience that very few French or German workmen have even a faint idea of the great number of varieties of vines that are known outside of the districts they used to work in, and many of them imagine that they are acquainted with all important ones; so they will generally attempt to identify in every variety that they find here some one variety that they knew in their native homes. It is very difficult now to trace back the origin of many of our common varieties. For instance, the *Black Prince* and *Aragon* has especially our popular *Zinfandel*. *Aragon* was imported to this country in the years 1850 and 1860, exchanged with each other without preserving records of origin; and nearly all the public-spirited men who promoted this great work are now dead, without leaving records of their own importations. The great collection of grapes at Agoston, whose assembly was made up of a large number of varieties, collected from all sources in this State and supplemented by his most import-

ant importation during his studies in Europe, while traveling as the Commissioner for California. We cannot tell now from his published catalogue which varieties he imported himself from the European collections and which he had gathered from other importers in this State. During his life he distributed hundreds of varieties throughout the State, the great number of which are now lost to name and used only by mixed vines in old vineyards. It is well known that several parties have commenced to form new and authentic collections by direct importations, which will be the means of assisting in future in unravelling many present mysteries. It is possible, however, that some of the varieties we may yet remain in the dark. We have no doubt propagated, in some instances, vines taken from collections in Europe that are almost as little known there as here, rare curiosities of viticulture, which we have utilized. This, I believe, is the truth about our *Zinfandel* and the claret which I have found, so far, impossible to trace back.

These remarks, suggested by the *Burger* so-called by us, are properly placed here, because this variety is destined to play an important role in our industry. The *Burger* is a true Rhine wine, as explained before. No doubt, the *Kleinberger* or *Waltz Edeling*, and far different from our grape of that name. Our *Burger*, I have no doubt, however, came from the Rhine; yet I have not classed it among the *Rhenish* varieties, because it does not belong to them. The claret from the Rhine is quite unsuited to bring this vine into proper maturity, except, perhaps in most favorable situations and years. Its home is in a warmer climate. In the *Ampelographie Rhenane*, among the varieties cultivated on the Rhine, is described a variety called *the Thalberger* and *Putschler*. The history of this variety is that it came from Hungary and that it even is used in the Grand Tokay vineyards, together with the *Vurmitz*. This statement, however, is doubtful. It was introduced on the Rhine as a curiosity, on account of its extreme fertility, but the Germans were soon forbidden by their government to propagate it, for fear the quality of German wine would be injured by its introduction. On the Rhine, as in this State, it was a tempting variety to plant, on account of its great fertility, but there, as even here, in some situations, it would not sufficiently mature its fruit, the climate being unfavorable. From the description of this variety, I inferred at once that our *Burger* was the *Putschler*, which appears to be the grape of the Grand Tokay.

The picture of this variety, however, differs from our *Burger*, both in shape of bunch and leaf. While in this confusion, Mr. Groezinger, of Yontville, imported the *Putschler* from the Rhine. He succeeded in fruiting it in ten or twelve years, which all but two were identical with our *Burger*, and two were identical with the illustrated plate in the *Ampelographie Rhenane*. Now, we are left to think several things; either that our *Burger* is the *Putschler*; or that the artist made an error in his illustration, or that what is known as *Putschler* really comprises two varieties of similar characteristics; but the evidence points certainly to Hungary as the native home of our *Burger*. Such an opinion accords with its character here, for here we find it ripening its fruit to perfection only in cool, or somewhat cool situations.

I believe that it is destined, together with small proportions of more aromatic varieties, to make the white wines of California as celebrated as the light table wines of the Rhine. With this variety as a basis of blending, the production of wholesome light white wine can be made in all viticultural sections of the State, where it can be well ripened.

In the northern bay counties it should always be confined to the warmest exposures and should never be planted on ridges or hillsides. In Santa Cruz county and in similar places, where the proximity to the sea tends to reduce the saccharine of grapes, the *Burger* may be unsuccessful except in the most favored spots, on rocky or gravelly soil.

In Fresno county and along the hot foothills of the Sierras, I believe that if this grape will stand the excessive heats of the summers it may be used to produce a wine of Manzanilla sherry type, provided the

fruit is allowed to attain all the maturity possible. At least it will be useful, if shall occasionally be used for such purpose, if blended with true sherry varieties from Spain.

In Southern California, Los Angeles, San Diego, etc., it promises to form the basis of light white wines. This I have failed in Anaheim at the end of the second year, leaving the vines for two years, the leaves dropping and exposing the fruit during the hot spells. I say apparently, because I do not believe that this accident is to be a permanent one; at least I believe that it is a question of soil rather than climate in this respect. Our vines in Santa Clara county are certainly more severe than those of Southern California. I will venture to say that the trouble at Anaheim with this grape was due to a sandy soil, not retaining moisture during the summer, and that the *Burger* will succeed, like the *Zinfandel*, if not suffered to over-bear, on soils or sub-soils where there is a sufficiency of clay and red oxide of iron.

The wine from the *Burger* is generally called neutral, and is valued by the merchants to blend with heavy or aromatic white wines. It will, no doubt, play an important part in blending with heavy red wines, to reduce the strength and to add life to their dull characters.

I shall hereafter call attention to two important characteristics that we must seek for the bulk of our wine grapes, viz: wholesome and noble characters. The latter characteristic every wine-maker knows means also easy fermentation.

The must of the *Burger* ferments easily and the wine keeps well. Hence it will be used to some extent in many vineyards where fermentation is difficult, even in cool countries and with well white grapes. The *Burger* and the *Mataro* are to prove the chief safety valves of fermentation in California and the hoops of our wine trade. Let it be understood generally that a poorly fermented wine is unwholesome; that wines difficult fermentation cannot be safely handled nor consumed when young; that wines easily fermented and good keepers are the known wholesome wines; that a great wine trade can only be built upon a reputation for wholesomeness and small risks to the merchant; and the public will understand any way I have encouraged the planting of varieties known to produce satisfactory rather than fancy wines. The so-called noble varieties in some cases are not easy to ferment, and do not produce wholesome wine; but their true office should be to be blended in small proportions with the useful varieties, to add character and beauty to the vintage. In the vat the *Mataro* and the *Burger* will correct the defects of fermentation of many other varieties, will render unwholesome musts wholesome, and save the merchant from handling rebellious wine.

For making fine brandy I believe the *Burger* is also destined to play another important role. In many respects it resembles the *Folle Blanche*, which is the leading grape of the Cognac country. I believe that they are as nearly as family. If I had a vineyard, such as some of those in the bottom lands of St. Helena, where ten to twenty tons of grapes to the acre is not an uncommon yield, and where the quality of the wine is often very poor, I should plant *Burger*, *Folle Blanche* and other varieties of light, greenish white wine, which I would carefully distill, fully believing that the brandy I should make could only be surpassed in quality by the same method in some other similar places, where perhaps soil is what we are ever to make a fine reproduction of the highest type of Cognac, such as was exhibited at our last State Viticultural Convention, the type of which is known as *Grand Fine Champagne*, we must certainly do it after the manner here in California. What we shall have there is in the Naglee brandy is, no doubt, due to the rankness of the vegetation of the maker's vines, the lightness of his wines and their comparative immaturity, together with a certain small proportion of quality in the grapes themselves. Only the *Burger* and the *Folle Blanche* and *Colombier* would have made Naglee brandy, I firmly believe, immensely superior to what it is now. West's *White Prolific* as a brandy grape I shall discuss by itself. I believe it is a variety of the *Colombier* family.

Let some one in Napa county try this experiment next year. Mr. Crab's the man to do it; take some valley *Burgers* from the bottom land, with sixteen per cent sugar; send for some *Folle Blanche* from Alameda or Santa Clara county, with instructions for its preparation; send also for some *Colombier* or twenty to twenty-four per cent sugar; ferment, without pressing the skin too much, and distill immediately after fermentation at low temperature; and then let the public brandy improve itself exceeding twenty per cent sugar; and be careful to keep it in proper coverage of not more than one hundred and fifty gallons in size and changing coverage every two years for new wood. See what can be done this year by a distillate from such light *Burger*, *Colombier* (white green Riesling), and *Folle Blanche* wines, as can be found, to experiment with.

COLOMBIER.—This variety came under its true name to Mr. Pellicier, of Santa Clara county, from the Charente district in France. It is one of the best Cognac grapes ever cultivated with the *Folle Blanche* and *St. Pierre* in all the finest Cognac growths. Mr. Lefranc has it under the name of *Sauvignon Vert*, and for some time it was supposed to be the *Sauvignon* of the high-classed *Sauterne* vineyards. This latter proposition has been proved a mistake, both by comparing the vine with the true *Sauvignon* recently imported in experimental lots, and by the study of the wine. Mr. Lefranc's white wine owes its Sauterne character, no doubt, to the mixture of the *Colombier* with other varieties, which has been known to the public. It is not improbable that in some part near Bordeaux, the *Colombier* may be known as the *Sauvignon Vert*; the Charente, or Cognac country and the *Sauternes* are not far apart. Some authorities put the *Colombier* as a synonym of the *Sauterne* grape, but California growers made recently improve this.

The *Colombier* is, however, a known fine variety for white wine, both in France and in this State. At St. Helena it required accidentally the name of *White Green Riesling*; that it took on the name of *Colombier* I have little doubt in saying now that I believe it should only be called the *Colombier*. We need the *Sauterne* varieties, and should not confound their names.

The *Colombier* has much similarity with West's *White Prolific*, and I believe, from all I know of the vine, that it will make a fine blend for *Burger* in the interior and southern, as well as in the northern counties; a blend that may be improved into a light fine Sauterne type, by grafting in as rapidly as possible a certain percentage of the *Sauterne* vine in the *Colombier* vine in the Sauterne country. To obtain a finer reproduction of the Sauterne type, we must wait until we have stocks of *Sanitoll*, *Sauvignon* and *Muscadelle* of *Bordeaux* (*Raisinetto*, *Cadillac*, etc., synonyms).

The *Colombier*, as has been said before, should accompany the best selections for brandy vineyards, where it is desired to produce the Cognac type.

This vine is a fair bearer—sufficiently fertile with short pruning.

FOLLE BLANCHE.—We are indebted to Mr. Pellicier of the celebrated *Folle Blanche*, of the Charente, which near Cognac is the dominant variety. The vine bears abundantly, with close-set bunches of white, or greenish-yellow (when ripe), grapes. Near Cognac it is distilled, generally set to seven per cent that will not keep over the season. In the low-temperature of the Gironde, near Bordeaux, it ripens better and makes a very light, wholesome white wine, very much liked by German importers.

Some persons have lately cheap *Sauvignon* probably it has been blended with a small quantity of real Sauterne. The quality of the grape for wine appears to improve as it goes south, and for brandy as it goes north; which, together with other facts, has made me announce this rule, that the best brandies we must distill the lightest white wine from a certain type of grapes, and that a certain degree of immaturity will result in better brandy.

As a wine grape, however, I believe the *Folle Blanche* is surpassed only by *Uferre* and *White Prolific*. I have seen many samples fermented separately in this State. When



very young it appears to have an objectionable rawness of flavor; but this passes off within the year. It has fermenting qualities similar to the *Burgur*, in fact, for that reason will be valuable to us. Probably there is no other white wine in France that can be bottled with so low a degree of alcohol as the wine of this grape. In Bordeaux, it is used in preparing what are known as "les clarets," which, in fact, comprise the bulk of the Bordeaux wines exported to this country, and which are labeled to suit after they are put on our market. The object of these preparations is to utilize heavy Spanish clarets and those of the Mediterranean, which, in fact, comprise the bulk of the Bordeaux wines exported to this country, and which are labeled to suit after they are put on our market. The object of these preparations is to utilize heavy Spanish clarets and those of the Mediterranean, which, in fact, comprise the bulk of the Bordeaux wines exported to this country, and which are labeled to suit after they are put on our market.

mean simply *white grape*, and serve only to designate a lost child of viticulture. What they are, I do not know. What they are, use will be also obscure. The wine from the old vines of the Bugby vineyard near Folsom becomes very light as the vines grow older, and last year it was scarcely merchantable except for distillation. A sample that I kept, name-day and age, may which was examined a few days after a year's exposure, and was found to be perfectly sound, though very light in alcohol, and greenish in acid. Mr. Haraszthy believes that this wine has value for blending purposes.

In Napa county I have seen a wine from the Mission vineyard of quality. In the Eisen vineyard near Fresno it produces abundantly, and its wine a sample of which is now four years old, has taken on a marked so-called sherry character. This sample is certainly worthy of study, and our experiments will be made. I should not, however, risk planting this grape for sherry purposes except where there is intense summer heat and a general disposition of other varieties towards a high saccharine percentage. It would no doubt produce a good brandy, but not so surely as the varieties I have named for such purpose.

ZINFANDEL.—This should be classed as a white wine grape of importance, but I reserve notice of it for its place under red wine grapes.

Mission. The Mission variety, so named after the Spanish Missions, where it was found, is probably a seedling propagated by the Franciscan fathers. There is no variety of Spain that is known to resemble it. Governor Downey had no authority whatsoever to say that the Franciscans had imported it from Spain as one of the finest varieties of sherry grapes. The sherry grapes are well known and in no respect resemble the Mission. But if the Mission is to have any role in future in our viticulture, it will certainly be only as a blend for sherry of an inferior type, or as a table fruit. It will no doubt be used for some time for sweet red or port types, but most gradually be abandoned even for that as finer and more sanitary products are made from other varieties. When our Los Angeles friends practice their trade with *Mataro* and *Trousseau* as a base with *Carignan* and *Grenache* blends for ports, they will find their wines will give them less trouble in transportation, will have fine character, and will be so wholesome, that, like the old fashioned Englishmen, our American lovers of "whisky" and "wine" will do better without ruing their digestion.

As a dry red wine grape, it is a nuisance. As a brandy grape, it is a hindrance to our progress; because one has only to try Mission brandy a few times to be satisfied that whisky is the better thing. The same property—whatever it may be—that makes Mission wine so "heady," appears to go over in distillation and impart the same trouble to the distillate. I have never used Mission brandy without suffering afterwards with a dull headache and a general tendency. I have never had such a result after using brandies from our other grapes—even the pomace brandy of Napa county is not so objectionable. Probably if the Mission grape were picked before complete maturity, the brandy might be free from these things, but I do not think I can say these things as forcibly as I can, because I realize that any unwholesome product of viticulture will seriously retard our progress in our contest in the whisky and beer markets. Those who have Mission vines should use them as stocks to graft better varieties upon as soon as experience tells them what selections to make. In Los Angeles county, they need not fear to use *Mataro*, *Carignan*, *Grenache* and *Trousseau* and two years by grafting will determine other varieties.

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FRONTONIAN.—Of all the varieties with the finest flavor, the *Frontonian* is by far the best for wine making. It is called *Muscat* in some parts, but I cannot but to avoid confounding it with other very different grapes, let us keep the name *Frontonian*, the name of the place where it made its greatest reputation before the phylloxera devastated that region. Where this variety will succeed best, I cannot tell. It does very well in Stockton, and I feel safe in predicting success with it in the climate of Southern California. In Fresno I do not know whether it will stand the intense summer heats. In Stockton there can be made a fine wine, of a superior character, or sweet wine, with delicate Muscat flavor, which surpasses, I believe, the famous *Frontonian* wine itself. If enough were made to warrant some merchant making an effort to bring it before the public in England, and in Russia, I believe that it would sell at a high price to our industry.

It may be used in very small proportions to flavor otherwise characterless white wines. I have known very important improvements in otherwise very ordinary brandy being made by mixing its wine with those of other inferior varieties. This proves nothing new, for at one time *Frontonian* brandy was so famous that chemists even sold extracts to imitate it. *Frontonian* wine became too valuable to distill.

An excellent wine is sometimes made in the south of France by blending *Mataro* grapes with other inferior grapes, such as the *Frontonian*. This wine is said to resemble the wine of Constance. This could be done whenever the *Mataro* could be ripened sufficiently for its use.

SEMILOU.—This southern variety, recently imported by Mr. H. W. Brown, of the Natoma company and myself, has already proved its value at Mr. Drummond's through grafting. This, however, as well as the other sauterie varieties, viz: *Sauvignon* and *Muscadelle* of *Bordeaux*, can only be had now by direct importations from France. The vine of this State being insufficient yet to supply the wants of those who have them. Santa Clara, Alameda, Contra Costa, San Joaquin, Solano, Los Angeles, San Diego and other similar regions should get ready to propagate these vines, if they desire to give their superior brandy and Sonoma may also be benefited by them.

SHERRY VARIETIES.—The important true sherry varieties of Spain—such as the *Listan*, or *Palomino Blanco*, etc.—are practically unknown to us, although during the last year some stocks have been imported from California. These sherry varieties have been strangely neglected. Our best success may be in those types.

BURGUNDY AND CHAMPAGNE VARIETIES.—Of the varieties which produce the noble white wines of the Burgundy and Champagne districts, only a very few have been propagated in California. The true Burgundy *Pirot*, of which there are several varieties, is so light a bearer that it has been generally discarded as a practical variety. Mr. Benson, of Napa county, has the *Pirot vert* rose and the *Pirot blanc*, and the *Pirot blanc* is a superior number. I commence testings wine. A sample I have tasted was excellent. The white and gray *Pirot*, which make the famous Chablis wine, are not practically known to us, although we have scattering lots of *Klevner* or *Gray Pirot* in some parts. I believe that *Melon Blanc* in Santa Clara county, which Mr. Crabbe is now using in grafting old vines, is a true Burgundy vine. I am going to test the Chaintre system of pruning on these shy bearing vines, and perhaps I may succeed in getting a profitable crop. *Pirot* ripens too early for the hot valleys.

CHAUCHE GRIS.—This variety came first to Santa Clara county together with the *Chauve Noir* from the country north of Bordeaux, France,—the *Lower Charente*. I find it the together in the collection im-

ported from the Charente by Mr. P. Pellier, and I have little doubt that they were both propagated by his collection through St. Helena and San Jose nurseries. In St. Helena we find a grape which I cannot distinguish from the *Chauve Gris*, viz: the so-called *Gray Riesling*, or *Gray d'Ischia*. I believe it is the same variety and that there never was any other variety of the *Pirot* class in St. Helena. There was a *Black d'Ischia* in Colonel Haraszthy's collection, which resembles the *Chauve Noir*—hence some have named the *Chauve Gris* the *Gray d'Ischia* by reason of the resemblance. This *Black d'Ischia* is the gray variety of the *Pirot* class, known as the *Black Pirot* in many parts. It is not a Burgundy vine—but comes from the west of France. With long pruning, in good moist, deep soil, it yields abundantly. The wine is of fair quality, but varies with the soil apparently, where it may make a fine wine, if any wine we do not yet well know. It will probably succeed in many places too warm for the *Riesling*. It will furnish a good stock to graft on for those who may get tired of cultivating it. I use the word "fine" with a great deal of reserve, for I have seen wine through many may make good, or fair quality.

RED WINE VARIETIES.

MISCELLANEOUS UNCLASSIFIED GRAPES.

ZINFANDEL.—The origin of this popular variety is veiled in mystery. It is quite generally believed to have been a favorite hobby of Colonel Agoston Haraszthy and his son Arpad Haraszthy, who in unstinted terms urged vine-growers to adopt it as a claret grape; but it is equally certain that it was in this State long before Colonel Haraszthy visited it. I am a member of the cultural Commission. I am strongly inclined to believe that there has been a mistake in naming it. Certainly it does not appear to belong to the varieties of *Sylvaner* or *Zinfandel*, described by Count Oskar. I have seen our samples of old *Zinfandel* vines in this State, which had such a remarkable resemblance to high classed *Medoc* (Bordeaux) wines that for all practical purposes I shall continue to recommend it for blends of Bordeaux claret types, although I think that judicious blends with *Burgundy* types can also be made. The four instances of true *Medoc* types from the *Zinfandel* were, viz: samples of wine two to four years old from the vineyards of J. H. Drummond, Glen Ellen, Sonoma Co., and of the Natoma Vineyard Company, Sonoma, California. The other two instances were of *Medoc* and *Andruane* Co., Napa, and Messrs. Brun & Chais, Oakville, Napa Co. Where the grapes in the two latter cases grew I do not know. In three of these instances I believe there was no doubt as to the absolute purity of this wine, and in the fourth case it can also be made. In these instances I recognize the finest wines of Bordeaux type that I have ever seen in the State. In each case the peculiar *Medoc* flavors and bouquet were produced by age and were not detected in the new wines. I am therefore convinced that dissections of these claret types are possible and where the soil is proper, the *Zinfandel* is destined to assist us in rivaling the most popular of the French wines of exportation.

The *Zinfandel* apparently succeeds everywhere in this State; but in the wine that it records many dismal failures. My present impression is that whenever its must marks less than eleven or more than 12½ per cent of alcohol for the wine, its product will be inferior and lose its *Medoc* character, retaining only the acid, such as Napa and Sonoma, it must have warm exposures, in others, such as Santa Cruz, I believe it will fail to properly mature; in others, such as Fresno and the foothills of the Sierras, it ripens too fast and loses its character. In sandy and gravelly soils, where the proportion of clay is small, its wine is thin, lacking in color and greenish acid.

In soils where there is a firm foundation of clay it gives good color, and when such soils are well provided with red oxide of iron, and where the proportion of clay yields *finess*, *Bordeaux* flavor and bouquet. Where there is an abundance of clay, the wine is not afflicted by free acid, but is delicate and velvety to the palate. In many places, such as Yolo and San Joaquin counties, it should be classed, I

mean simply *white grape*, and serve only to designate a lost child of viticulture. What they are, I do not know. What they are, use will be also obscure. The wine from the old vines of the Bugby vineyard near Folsom becomes very light as the vines grow older, and last year it was scarcely merchantable except for distillation. A sample that I kept, name-day and age, may which was examined a few days after a year's exposure, and was found to be perfectly sound, though very light in alcohol, and greenish in acid. Mr. Haraszthy believes that this wine has value for blending purposes.

In Napa county I have seen a wine from the Mission vineyard of quality. In the Eisen vineyard near Fresno it produces abundantly, and its wine a sample of which is now four years old, has taken on a marked so-called sherry character. This sample is certainly worthy of study, and our experiments will be made. I should not, however, risk planting this grape for sherry purposes except where there is intense summer heat and a general disposition of other varieties towards a high saccharine percentage. It would no doubt produce a good brandy, but not so surely as the varieties I have named for such purpose.

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think, as a white wine grape. Its must, when not fermented on the skins, produces wine delicate in flavor and sub-acid; in those places where the crop is large and the saccharine in high degree, it succeeds well in the alluvial soil of Los Angeles county; it should be made into white wine, unless experiment by fermenting it with the *Mataro*, or some similar variety, should prove a great improvement. In San Diego county we have found it to succeed well in the same soil, in the locality of the "dry" clay sub-soil. Across the ridge on similar loam, without clay, it fails to give color. In Fresno county and the Sierra foot-hills it is either a port or a white wine grape.

Judging from its acid and other general characteristics, I believe that it will produce the brandy, where it does not over-ripen.

There will be many who will insist on keeping *Zinfandel* unbled. Certainly under a perfect degree of maturity, neither musty nor over-ripe, it is a fine wine, together with good color, the *Zinfandel* produces well without the acid of any other variety. But I firmly believe that our markets will be better pleased with more solid and expressive wines. The *Zinfandel* and *Mataro*, each good in itself, will be made up to a white wine basis. The red wine vineyards, to be directed in expression towards favorite types by judicious blends with fine Burgundy or Bordeaux varieties. These blends, if perfected by being racked together as soon as each has finished the first violent fermentation, will be, I think, the foundation of our trade in dry red wines. The *Mataro* and *Zinfandel*, in many cases, may be fermented together with great advantage—the *Mataro* correcting any excess of ripeness of the *Zinfandel*.

The *Zinfandel* should not be long pruned; long wood results in light color and irregular maturity with this grape. Possibly this rule might be changed if the Chaintre system of pruning be followed. I believe it is worth while to experiment in doing so.

**MATARO.**—Although this is not as extensively cultivated now as other varieties for red wine, yet its present popularity demands for it a place to its right; indeed, I believe that for the future it will have a wide range of usefulness. It comes to us from two parts of France, under different names. Along the Mediterranean coast of France, it is called generally *Marscidre*, although it is also called *Broustard*, *Etrouge chin* (dog strangler), probably on account of the roughness of the wine when young. Along the Spanish coast it is known as *Mataro*, *Beni-Carab*, (c. in the Charente, north of Bordeaux, it is called *Bolaco*. We find its name reported under both the names *Mataro* and *Bolaco*. It has been, without reason called the *Upright Burgundy* at St. Helena, and *Miller's Burgundy* in Santa Clara; the former is an invention, the latter a misappropriation of name.

All the great French authorities agree in placing the *Mataro* as the finest red wine grape of the southern regions, and many Count Odart included, have commended its use, even in the Bordeaux districts. By reason of its peculiar adaptability, it can be cultivated much further north than its common name would seem to justify. In *Carignan*, it ripens generally a little later than *Zinfandel*, and its must should promise an alcoholic strength of twelve per cent before the grapes are picked; when picked at a less degree of maturity, it fails in color.

The apparent defect of this grape—the roughness of the new wine, but this is the defect of most noble varieties. Like the *Cabernet-Sauvignon* of Bordeaux, it requires age to develop its quality. It should be remembered here that wine which is agreeable when new, seldom, if ever, improves with age; but in the case of the wine markets, unless blended carefully with wines that are durable. The *Carignan* has been generally preferred at St. Helena to the *Mataro*, because its young wine is more agreeable to the palate. I have recently, as a Captain Niebaum's, seen the one of the old *Carignan* vineyards, and in coming back, while the *Mataro* was improving rapidly. I believe that the durable merit of the wine of Mr. Scheffer, known as *Carignan* was due to the *Mataro* contained in it.

In testing red wine samples at St. Helena, a few ago, the St. Helena City gave the preference to a blend of *Mataro* and *Zinfandel*.

The chief merits of *Mataro* are, viz: The

wine bears well and resists early fall rains; the fruit contains an abundance of tannin; the wine is wholesome, easily fermented, and contributes its fermenting and keeping qualities to the wine with which it is combined. A mixture of *Mataro* in the fermenting vat with varieties that ferment with difficulty is often a sovereign remedy in the south of France. Whenever it is well suited in soil, exposure and climate, it gives an intensely colored wine. It abounds in the vineyards from which the Roussillon wines of commerce come. When excessively ripe, it combines well in port wines, and if left to become over-ripe on the vine and partially desiccated after picking, it has been combined with the *Muscot Fronton*, to make a superior liqueur wine—said to resemble the wine of Constante.

Dr. Jules Guyot, the most celebrated of French viticultural writers, says of this grape—"But, of all its advantages, that which should be held in highest esteem is served in Var, in Provence, and in all those regions of the Mediterranean coast of France, where it is cultivated, is this—the wines produced by it are unaffected by disease, firm, agreeable and salutary to a higher degree than the wines of any other variety of these districts." Mr. Pellicot, a later authority, and one most competent, says: "I believe we should add to the judgement of Dr. Guyot that no other wine of our country (the south of France), stands transportation so well and by sea, and equatorial heat, better than that of the *Mataro*. The tannin, with which it is well provided, gives it, in a high degree, preservative qualities; but it is at the same time the cause of the bitterness which is noticeable in its new wine."

I believe there are few red wine vineyards in California, whether for dry or sweet wine, wherein the introduction of a proportion of *Mataro*, varying from ten to seventy-five per cent, will not be a positive gain. The *Mataro*, however, should not be planted on shallow, poor or dry soils; it flourishes best where there is a sufficiency of humus, or leaf mold, and where the sub-soil permits the easy descent of its roots. It should not be placed in those vineyards where the *Zinfandel* and *Burgeo* do not ripen well. It is well, when properly placed, with both of these.

**CHARBONNO.**—I can find in the books only one place where this name appears. I have not yet found it spelled "Charbonneau," as is sometimes done here. This variety comes from the Jura, together with the *Trousseau* and *Ponsard*. The Jura lies south of the Burgundy districts, in the valley of the Alps. Its name is numerous and so obscurely given, that this fact alone, together with the history writ in concerning it, indicates that it is not the most esteemed variety of that country. Its leading name is *Corbonno*; it was imported by Mr. Drummond, under another synonym, the *Plant de Montebian*. It is undoubtedly true to name.

The reader should remember that different varieties of vines received local names throughout Europe long before there was any careful classification of them. The confusion of names in this is bad enough, what we should avoid here is the misappropriation of well known names.

The *Charbonno* in Santa Clara county yields abundantly, and its wine, when under favorable conditions of culture, has a fine, deep color. It will not, however, advance the cause of viticulture, by reason of the cheap marketable product for ordinary use. Its characteristics are such that it generally covers up the finer qualities of better wines. Unlike the *Zinfandel*, it dominates its blends, such as the *Zinfandel* and *Chabuche Noir*, by its identity. Therefore, it is not that the *Charbonno* will ever be as popular as *Zinfandel*—its use being more restricted, excepting that possibly it may succeed where the other may fail. Its color will cause it to be always appreciated. For coarse, common wine, it is a good one, and I commend it to those who prefer quantity to quality. I believe that it will flourish best on warm, deep soils, and that it will fail on cold, clay subsoils. I have seen it failing on such cold soils, where the *Trousseau* and *Chabuche Noir* thrived well. The vines, in this instance, however, are young and not yet fruited. In the low, rich lands near Santa Clara this vine has shown

a tendency to be greenish and acid in vintage time. I think this was due mainly to forcing too large a crop, to too long pruning, and to staking high, because I have seen it in such a state, where the vines were not watered properly. In the vicinity of Stevenson Creek, west of Mountain View, in Santa Clara county—especially in the vineyard of John T. Doyle, Esq., it reaches apparently its highest perfection. The *Charbonno*, no doubt, has come to stay, and will be prized for its fertility; the wine, if blended with *Mataro*, *Trousseau* and *Zinfandel*, will be plentiful, and salable as an ordinary claret, lacking fineness, but possessing good, wholesome properties. Those who desire to produce only high grade wines should not plant this variety.

General Nagle has won for this grape probably its highest praise through his so-called Burgundy brandy, which at the age of ten years develops a faint, delicate aroma and bouquet. I suspect, however, that this brandy should be held in low estimation, the percentage of *Trousseau*, which he has among his *Charbonno*. His young Burgundy brandy does not show any noticeable quality other than purity of spirit and freedom from the disagreeable headiness which so often accompanies Mission brandy. Other grape varieties better suited to making fine brandy, with abundant ethers and desirable flavors.

The role of the *Charbonno* is certainly confined to the making of light, cheap table clarets, in the coast counties particularly.

**TOUSSAUX.**—This variety came to San Jose from the *Chabuche Noir*, both being imported, I believe, by Mr. Delmas, many years ago. These varieties, together with a number of others, were started out as "Burgundy" stocks, thereby causing the confusion that now prevails. It is proper to say here that the term Burgundy, as applied to such wines, is entirely purely conventional, and has lost among our people its original meaning. Commercially speaking, it is now common to call any dry red wine having more than twelve per cent of alcohol, and being rich in body and flavor, as applied to such wines, and the original distinction is becoming lost to the general consumer, and wines from the Jura, from Beaujolais, are sent out as Burgundies; hence, we are drifting into calling all the varieties cultivated from Lyons to Dijon Burgundy grapes, including *Charbonno*, *Trousseau*, *Ponsard*, and a host of others, as the *Pindot*. These grapes vary so much in quality and general characteristics of production that it is not only necessary here to make these remarks, because many ambitious young planters, aiming to reproduce the Burgundy of Charente, are growing Burgundy, as they have known it in their travels—are being misled by our false nomenclature.

I have, however, often written to correspondents, using popular language where necessary, and commended them about combinations of varieties for Burgundy types, as commercially known. In this sense I have often urged the planting of the *Trousseau* together with other fine varieties. And in this sense I shall generally use the expression Burgundy types—the true Burgundy wine of Charente, however, will never become well known in California, for reasons to be given hereafter.

The *Trousseau*, like the *Mataro* and *Zinfandel*, is destined to become widely cultivated in this State, on account of its general adaptability and its fine qualities. Although the wine of *Charbonno* is a true Burgundy, so-called Burgundy, it possesses keeping qualities quite contrary to those of the *Pinot* family. It is especially valued in the Jura for its preservative qualities, when blended with other wines, such as the *Chabuche Noir*. It has a fine, deep color, and imparts a rich Burgundy character to a blend of *Zinfandel* and other varieties. If combined with *Chabuche Noir*, *Pinot*, *Mataro* and *Chabuche Noir*, the result in favorable locations would be a rich Burgundy type, suitable for the English market, especially in those localities where it should be allowed to grow old together with it.

The *Trousseau*, like the *Chabuche Noir* and *Bis* and *Riesling*, ripens its wood early and is not affected by early fall frosts even in very exposed places.

The *Chabuche Noir* suffers severely from the early frosts in some low places.

It bears well with long pruning and is a very vigorous vine.

French authorities nearly all concur in declaring that the *Trousseau* is identical with the *Barbado*—one of the two vines most celebrated in the Douro, Portugal, for making the finest claret port wine. I have imported the true *Barbado* with other Douro varieties and shall be able to compare its fruit as well as foliage and wood next season. Thus far the resemblance is marked in the wood and foliage. More especially have I observed with characteristics which have been pointed out by Mr. George West, of Stockton, and Mr. L. J. Rose, of San Gabriel. It is probably the same as the *Barbado* and it is certainly a superior variety for port wine, in such districts as Solano, San Joaquin, the Sierra foothills, Fresno and Southern California. For dry wine it will excel in the bay counties and, if picked at the proper time, in the vicinity of Stockton.

I have personally tested port wine made from this grape as compared with that made from the *Mission variety*. I found that the *Barbado* wine was more rich than *Trousseau* with impunity, enjoy it and feel no disagreeable after-consequences, while the same quantity of *Mission* I should not dare to consume. It is possible that when we make our ports out of *Trousseau*, with such a companion as the *Chabuche Noir*, other Douro varieties, or with our *Mataro* and *Grenache*, port wine drinking may become popular in the United States.

**CHABUCHE NOIR.**—This is the brother of the *Chabuche Gris*. It is found quite frequently in the Santa Clara and Santa Cruz vineyards, and sometimes scattered among the vines of the *Chabuche Noir*. With the same variety as Schram's *Pinot* (formerly called by him *Merlan*), Mr. Chas. Wheeler's *Black Pinot* and the *Black Cluster*, *Black D'Ischia* and *Black Riesling* of other places near St. Helena, I have prepared a *Chabuche Noir*, with a somewhat different aspect to the *Trousseau*, *Chabuche Noir*, *Chabuche Gris* and *D'Ischia Noir* have a striking resemblance. The *D'Ischia Noir* was imported by Colonel Haraszthy, and no doubt propagated in the early St. Helena plantings; when the *Chabuche Gris* appeared from Santa Clara, its resemblance to the *D'Ischia Noir* no doubt was the cause of its acquiring the name "Graft D'Ischia." So we may be apt to confound the *Chabuche Noir* with the *D'Ischia Noir*. My impression now is that the *Chabuche Gris* appeared from Santa Clara, in a favored place near St. Helena among the old vines—such as at Capt. Niebaum's (in the old vineyard), at Mr. Scheffer's and at Mrs. Weimberger's. No mistake need be made, however, in propagating this vine from Santa Clara or Santa Cruz counties.

The *Chabuche Noir* is found in a few scattered places near St. Helena among the old vines—such as at Capt. Niebaum's (in the old vineyard), at Mr. Scheffer's and at Mrs. Weimberger's. No mistake need be made, however, in propagating this vine from Santa Clara or Santa Cruz counties.

Santa Cruz county, when well ripened, it makes excellent wine of fine type. In St. Helena, it may be seen at Mr. Scheffer's, where in combination with the *Mission*, it was used to make his "Burgundy" wine so much admired two years ago. It will be remembered that I first gave out that the grape which produced the *Chabuche Noir* was the *Franc Pinot*; I was shown what was said to be the vine, and declared it to be the *Chabuche Noir*. The vine I saw was the *Chabuche Noir*; but since then I was shown another block of vines, which I have since seen to be the same wine—these were *Mission* vines; there were no *Franc Pinots* among them, that I could discover. So we are left in doubt as to how much of quality in that "Burgundy" wine was due to the *Chabuche*, and how much to the *Mission*. I think, however, that the *Franc Pinot* contributed in most part the color and the body.

Mr. More remarked when showing this wine in Mr. Scheffer's cellar that it did not resemble a true Burgundy, but was a fine reproduction of *Pissillon*. Count Odart, in his *Amoenograph* says of the *Chabuche Noir* that its wine, when made under favorable circumstances, recalls to mind the wines of Roussillon. Mr. More and Count



Odart agree in describing the wine, but the former was undoubtedly mistaken in calling the wine a *Franc Pinot*. The cause of the confusion was in the loss of the true name in a vineyard planted before Mr. Scheller came into its possession.

I have done these remarks worthy of place here, because our State vine growers would like to know how to reproduce the wine made at Mr. Scheller's. Let them cultivate *Chauche Noir* and *Mouir*. Time may prove that there was also some *Malbeck* in that wine; I think so. It is difficult to obtain the exact truth in such matters.

**BERNER.**—I introduce this variety here, because of its connection with the preceding. It is very little propagated at present. Only a few thousand vines are existing in the State. Its excellence, however, is a matter of history and is corroborated by the experiment in Mr. Scheller's vineyard already referred to. It is found in small lots in Santa Clara and Santa Cruz counties, but this name has been improperly applied in some places in Santa Clara county to the *Mataro*. It is a creeping vine—canses running naturally close to the ground. Both sides of the leaves and the canes are white on one side and green on the other (Miller); it is cultivated also in the high class Burgundy districts of France with the true *Pinot*—hence its name, *Miller's Burgundy*. It bears very much better than the *Franc Pinot*, but its quality is so good that it was admitted to place in the table competition. No doubt it destroys somewhat the fineness of the *Franc Pinot*, but the sacrifice is not considerable. With long pruning properly conducted it will bear very well. It is eminently adapted to the Chauche system. A canopy of canes over the vines is tried on their sheltered slopes. If by planting new ground, plant 7 by 14 feet; if grafting, graft every other row and as soon as the grafts are one year old, take out the alternate ungrafted vines and lay the *Mouir* down in Chauche style. This variety, like the Burgundy vines, should be well ripened—giving a wine twelve to fourteen per cent strong in alcohol; otherwise they do not show their fine qualities. The *Chauche Noir* will show quality with eleven per cent in this respect. It is allied to the Bordeaux vines. I am inclined to believe that the *Mouir* will not generally succeed in the Santa Cruz mountains, where the tendency is to light clarets rather than to Burgundies.

There is an apparent inconsistency in this statement, because the *Mouir* is a white wine, earlier than *Chauche Noir*; but mature is inconsistent. Although an early ripener, it does not develop its full quality in a Santa Cruz climate. If it were taken to the San Joaquin Valley it would ripen too fast, and be fit only for sweet wine. A variety to be properly ripened must not be subjected to a climate or situation that causes it to pass its limit of perfection. On warm, rich slopes of Santa Clara, Alameda, Contra Costa, Napa and Sonoma counties, the *Mouir* cultivated in *Chauches* would succeed admirably.

In carefully constructed and managed cellars its wine would be brought through safely; but in cold, badly regulated cellars, it would be found difficult to clear, its fermentation partaking of the difficulties of Burgundy wine. It is a delicate wine to supply a cool San Francisco market it would, no doubt, be profitable for experienced wine-makers to handle; but in general there should be plenty of *Chauche Noir*, *Trousseau* and some *Mataro* to blend with it, so that the wine may be clear, strong, bouquet and would be preserved by them by finishing its after fermentation in company. The tannin of these grapes would precipitate the albumen of the *Mouir*, and perfect a wine of fine quality and of commercial Burgundy type. It could be combined with the hillside *Zinfandels* and *Mataro* at St. Helena with advantage. A little judicious grafting would add much to the St. Helena wines in a very short time.

**CRABB'S BLACK BURGUNDY.**—This variety has been given a conventional name for purposes of identification. Mr. Crabb obtained it from Mr. Delmas, who brought it to the Valley from St. Helena. It is found in Mr. Pelletier's collection under the name of *Petit Pinot*. He claims that he in-

ported it, together with his other varieties, from the Charente, France. I find all his description, except this one, true to the description given by Count Odart of Charente vine varieties. There is a *Petit Pinot* in the Charente, but it is a white variety. I believe there is no doubt but that it came from the Charente, and it may be the vine described by Odart as the *Pinot Noir* of that district. It is a vine of great prospective value for our coast counties. It produces well, even with short pruning, gives a wine of fine color and bouquet. If it ripens early—as the *Zinfandel*, and might be fermented together with the *Malbeck*; possibly in some seasons with the *Zinfandel*. It has a drooping growth, and would probably do well on sloping lands in *Chauches*. Combined with sloping lands in *Chauches*, it would probably finish its after fermentation in safety. Or, with *Trousseau*, *Chauche Noir* and *Mouir*, carefully handled, it ought to make a fine Burgundy type.

**THE BURGUNDY PINOT.**—This, par excellence the Burgundy wine, boast of a family of varieties, of which the *Franc Pinot* is the chief. It is not yet cultivated in any quantity sufficient to give token of its merits in this State. It has been abandoned on account of its very shy bearings. However, those who have tried it in the past have generally subjected it to short pruning, and hence is yet to be known as it really is. By the *Chauche* system I believe it could be made to yield, on our good Napa and Sonoma hillside and in singular good places, a crop of two tons and a half to the acre. This would be profitable if the wine should prove to be fine, and if it would bear considerable experiment here. We have only one positive advantage in this direction. Mr. J. H. Drummond has inaugurated experiments at Glen Ellen, as I have done also near Livermore.

**PETITE SIRAH.**—This noble variety is that which forms the foundation for the grand wines of the Hermitage, in the valley of the Rhone, France. It requires long pruning and is a shy bearer, though a vigorous vine. Its vigor indicates to me that by the *Chauche* system a profitable crop might be obtained; at least I am willing to test it. A small quantity of wine was made in 1882 by Drummond sufficiently proved its fidelity to its reputation. None are yet planted in practical quantities. A white grape, the *Toussaine*, is the most prominent associate that it has in the Hermitage wines. In the large plantations it is taken to Bordeaux, there to be blended with the fine *Médoc*s. I believe that the *Sirah* would succeed well at San Gabriel, although a small crop could only be expected; it would set its berries well also in San Diego county, probably. In a few places she may know something of this interesting variety.

**MALBECK.**—This vine, of which there appear to be several varieties—generally classed under the name *Cot*, viz.: *Cot a queue vert*, *Cot a queue rouge*, *Cot de Bordeaux* (this last is properly the *Malbeck*), is the most popular claret grape through the center of France—from the Burgundy vineyards to the Atlantic coast of Bordeaux. Of the Bordeaux clarets, as known to the world, the wine from the *Malbeck* is no doubt the characteristic base. Near Bordeaux it is cultivated in the bottom lands, or *Palus*, besides being in certain proportions in choice *Médoc* vineyards, though not in all. A Bordeaux critic says that the *Malbeck* is the most inferior variety that can be suffered to enter into the composition of the celebrated Bordeaux clarets. This, however, is drawing a fine point, because *Malbeck* is not inferior to the grape of any other portion of the French vintage. If we only had our California clarets up to the standard of a good *Malbeck*, we should have no fear in entering the markets of the world; we could sell now a hundred million gallons of *Malbeck* to France.

Of the Bordeaux varieties this is the only one that has been sufficiently propagated here to be considered practically introduced. The other higher classed varieties were gradually abandoned because their crops were so light and proper systems of pruning were not understood, and even the *Malbeck* was only preserved in a sufficient quantity in Mr. Lefranc's vineyard in Santa Clara county, although it is found scattering

throughout several others. A few have tried to propagate it systematically in recent years—notably Mr. G. Griesinger of Kountzeville, Captain Nicholas of Ruthford, Mr. Scheller of St. Helena, Mr. J. P. Smith and others of the Arroyo del Valle district in the Livermore Valley and the Natoma Vineyard Company. Mr. Crabb of Oakville is also to be mentioned in this connection, and to his experiments mainly is due the present favor with which the wine is received here. Lefranc has not been so successful in his efforts, but he has fallen into the error of picking his grapes over-ripe. I have seen two only of his vintages of this grape which were successful in point of perfect fermentation. Those, however, have caused me to believe that in this State we need not despair of rivaling the highest types of Bordeaux wines. The bouquet and general character were exceedingly fine. Mr. Crabb has shown that with this vine he can obtain a abundant color in places where *Zinfandel* and *Malbeck* refuse to respond. It is indeed a bottom land grape.

It is subject to *coulure* (failure to set its fruit), and this year was one of the most choice varieties that succumbed to the hot blasts in June. This ought, however, not to discourage planters too much.

It is a more choice wine and obtains highest prices without some sacrifices. If it can be cultivated profitably in France, it ought to be done also here. The *Cot* is the variety most used in the region where the *Chauche* system was invented. Here it yields less than *Malbeck* and by the new system as it did under old systems, most carefully managed. I believe that by the *Chauche* system we may succeed in our coast counties in profitably cultivating the *Malbeck*. The same might be said of the regions about San Gabriel and the coast counties. I do not expect it to succeed well in regions of great heat and sudden extremes of temperature. With *Malbeck*, a combination of *Mataro*, *Zinfandel* and *Chauche Noir* ought to produce a fine wine of Bordeaux type after two or three years in cask. Mr. Lefranc calls his vines *Chauche Malbeck*; that is because he believes he has *Cobernet* mixed with them. If there is such a mixture, which I do not doubt, it is one of advantage. True collections are now being propagated most extensively, being those of Mr. Drummond, the National Orchard and Water Company, H. W. Crabb and Mr. Lefranc. I wish to verify the vines now planted in mixture. I believe it would be wrong to tie this variety up to high stakes, as is done at St. Helena with *Riesling*. Such a practice cannot be justified. *Malbeck* has the best of quality and color. Some one of the methods practiced near Bordeaux or the *Chauche* must be adopted for the *Malbeck*. The fruit must be kept near the ground to secure even maturity and good color.

Those who have been disappointed with the *Malbeck* this year should remember that this is an unusual year for such varieties, the *Malbeck* not being the only one to suffer. Moreover, those who would profit by quality can afford to take some risks. A worth while experiment would be to blend with the *Mataro* in *Zinfandel* vineyards the *Malbeck* being in a proportion of about twenty per cent. Future experience may demand for it a wider range.

**CABERNET SAUVIGNON.**—This is the highest type of Bordeaux claret grapes. It is a very shy bearer and demands long pruning—training which can only be practically known here at present. The sample of wine made by Mr. Drummond in 1882 was more admired at the last State Viticultural Convention than any other on exhibition—notwithstanding its youth. Those who are now experimenting with it are not generally those who came from France. I am testing its practical value near Livermore. I believe that those who aim at fine wines of Bordeaux type cannot afford to be without it. Those who intend to use such vines would probably be wise to plant them in stocks where they can be trained with them; as soon as they have determined what they will select to graft with, they will have well developed resistant roots ready for their work. That is the plan I am pursuing. I have an experimental block, where nearly all the most celebrated vines are growing; moonville my fields of *California*, *Riparis* and *Arizona* are losing no time in burying their roots deep into

my rich marl subsoil. I have already grafted many varieties to test them—hoping to succeed well with either the *Cabernet Sauvignon*, *Petit Sirah*, or *Franc Pinot*, as a principal stock, my resistant roots nearly all being planted for the *Chauche* system—some 7514 feet, some 7521 feet.

I shall not mention the *Verdot*, *Merlot* and other *Médoc* vines. This paper cannot be extended so far as to discuss all important experiments; I aim to cover leading features only.

**CANONICAL**—I do not participate in the opinion of those who are now inclined to give this variety a higher rank than it has in Europe. I believe they are misled by the delusions of new wines. It may be safely said that when new wines are agreeable to the taste they should not be imported to drink the way they should be imported. I have seen lately a *Carignan* sample at Captain Niebaum's, which was the favorite last year when it was first made, now becoming diseased and acid, and by its side a *Mataro* and a *Chauche Noir*, which were not liked last year, are now being imported in large quantities.

The *Carignan* is a variety from the Mediterranean coast of France, and is there cultivated with the *Mataro* and *Grenache*, principally on account of its deep color. I cannot find that it dominates any one vineyard. It is not to be confused with the *Carignan* in connection with such grapes as the *Mataro* and *Grenache*. It is best suited to districts where the earlier-ripening noble vines are apt to become over-ripe. It requires short pruning.

**GRÉNACHE.**—This vine is so vigorous and fertile, and so well adapted to dry, warm regions, that it is being extensively planted too numerously. Its chief value is in adding fineness and delicacy to the *Mataro*, although it may be used to make a sweet red wine. In France it does not go alone into the cellars. It is destined to play an important part here, and to be kept out of the cellars in the coast counties. For the interior and some parts of the south, together with *Mataro* and *Carignan*, it will probably find its true place, as in Europe. It will succeed and flourish in arid places, where a *Zinfandel* would fail, and it will strike its roots into rebellious soil where a *Malbeck* would perish. It should be kept away from early fall frosts.

**POUSSARD, or PLOUSSARD.**—This variety, which is known as the vine of finest quality in the Jura, where it is cultivated with the *Trousseau*, *Bechem*, etc., is found, true to name, in Mr. Pelletier's collection, though in small numbers. It is a white wine, *chauche* and not propagated for that reason. Mr. Portal has a vine which he calls *Poussard*—one of the synonyms of the *Poussard*—which, until the last State Viticultural Convention, was supposed to be correctly named, notwithstanding its fertility. When shown at the Convention, however, it was clearly not correctly named. It is no doubt a valuable grape, but what its true name is we have not yet discovered. Mr. Portal's vine might profitably be propagated, but the *Poussard* is not a name of any value, and after experiment has been made it may be suited to the soil and climate selected for it.

**FOLLE NOIRE.**—This is also a fertile vine of the Charente, apparently giving good color and quality to claret blends. Not much, however, is known of it here. It bears well in the one place that I have seen it.

**MISCELLANEOUS VARIETIES.**—Experiments are now being made with a great many other important vines, such as *Tannat*, *Moudeux*, *Aranon*, the Portuguese varieties, etc., but the record is too voluminous for the present writing. I have touched upon the most important varieties, those who wish to purchase the seeds with stocks that can now be obtained in the State; also the well-known types which we should strive to reproduce if possible and practicable. The studies of Portuguese, Sherry and Madeira varieties are too new for much comment.

**COLORING VARIETIES.**—There are varieties of vines specially valuable for their coloring properties—useful to the wine-maker whose wine is deficient in color. Prominent among these is the American grape, *Jenior*, which has a colored juice, and whose wine is a tincture of coloring

matter. It has the merit also of being a tree resistant to the phylloxera; but it is very difficult to propagate. Those who wish this variety had better graft it low down on vines already growing, so that it may strike its own root above the point of union, and so accomplish also its resistant role. Mr. Crabb has two vines, which he calls *Pied de Perdrix* and the *Gianny Trinitario*, both of which give intense and beautiful color. The former I have seen, and that it may be misnamed. The common *Teinturier* is well known, but its crop is too small to permit it to be much used.

In the south of France, during this generation, there has been created a new family of coloring varieties—being hybrids between fertile, heavy-bearing vines and the *Teinturier*. This is the Bouschet collection, most of which I am now experimenting with. The best known are the *Petit Bouschet* (hybrid between *Aramon* and *Trinitario*) and the *Alicante Bouschet* (hybrid between the *Petit Bouschet* and the *Grosbois*); the latter grows vigorously with me, and I expect to see its fruit next season; so, also, I expect to have fruit from the *Petit Bouschet*, *Gros Bouschet*, *Petit Bouschet* & *Morastel*, etc.

We shall soon know how to correct deficiency of color. In Fresno, at the Eisen vineyard, I have observed that the *Trinitario* and the *Norton's Virginia* fail to give their accustomed color. I noticed the same as to the *Trinitario* at Folsom.

The *Cydonia*, of the same family as the *Zenith*, shall receive attention as a variety valuable for color, and finer in quality, but less fertile.

AMERICAN RESISTANT STOCKS.

I shall refer only briefly to American stocks for grafting—not those valuable for their fruit. This subject has been fully treated upon in my first Annual Report to the Commission, excepting perhaps the latest knowledge concerning the *California Arizona*. I mention it now only dwell upon this topic sufficiently to speak of three species which I consider most important.

VITIS RIPARIA.—This wild species grows in the Mississippi and Missouri valleys, having the widest range of adaptability known to any vine. It is now the favorite grafting stock in Europe; it grows easily from cuttings, and is reliable as a resistant vine. Cuttings may be procured in this State from Professor George Humann and Messrs. Coates & Tool, of Napa, or from my own collections. Seedlings and rooted cuttings have been exhausted, so far as I know. I have a car-load of the *Riparia* cuttings, received from the wilds of Nebraska. Seeds can be procured by those who wish to propagate seedlings.

VITIS CALIFORNICA.—This is the native wild vine of California. I was the first to send it and the *V. Arizona* to Europe for experiment, and have cultivated and propagated it largely for four years. It is certainly a resistant vine; our experiments in Sonoma clearly demonstrate this fact. It is also a vigorous grower, when in cultivated ground, and makes a stouter trunk to graft into than any other of the wild species now used. It strikes deep tap roots and fails to the graft of all the European varieties that have been tried, with great facility. In my opinion, all its merits being considered, it is superior as a grafting stock to all others. It does not take root readily from cuttings—so the plant must be for practical purposes propagated from the seed, which is not difficult to accomplish. About 100,000 seedling *Californicas* have been planted in this State during the last year, one hundred and forty thousand are engaged for planting this coming season, and I know of only forty thousand remaining unengaged.

VITIS ARIZONICA.—This is the wild vine of Arizona. My first essays were with seed procured at an altitude of six thousand feet above the sea. It is unlike in growth any other species of American vine. It makes a straight, thrifty stalk from the seed, and is more resistant to the trunk than the *Riparia*. It is a most resistant vine. In San Diego county I have seen a specimen seedling, which I sent to Major Merriam, outstripping all others in the experimental block. With me in the Livermore Valley it prospers, but does not quite equal the *Californica* in growth. I am not certain whether it can be propagated from cuttings with facility. I believe not. For two years I

have failed to obtain fresh seed; the crop of wild fruit having dropped before maturity; so I have been unable to get more stocks to offer. I believe it will grow well on our most arid hillsides.

IN CONCLUSION.

I shall apologize for not describing many such varieties as the *Barbaroux*, *White Nier*, etc., but these are not of great importance. Rains and table varieties I shall refer to in another paper. In all that I have written I reserve the right to be inconsistent, whenever further study teaches me any errors that I have fallen into. I shall try to avoid a pride of opinion, while I shall always state as positively as I can all that I think I know with certainty. This study of vines is most kaleidoscopic, and sometimes confusing. I believe, however, in fixing upon certain objects to attain, and from those standpoints trying to bring order out of chaos.

AD MAJOREM GLORIAM BONI VINI.

The undersigned having enlarged his business, has opened a branch office at No. 321 Montgomery Street, where information can be obtained concerning viticultural and horticultural lands, and where orders for vines and vine cuttings will be received, as well as at the old office, No. 111 Leidesdorff Street.

Having accomplished nearly all that is necessary to be done in establishing a flourishing colony of wine producers in the Livermore Valley, I shall now devote my attention especially to the development of the Viticultural and Horticultural resources of San Diego County, which county is one of the most promising in the State.

Information may be had at this office concerning the remarkable offering of the

EL CAJON LAND COMPANY.

And selections of land and subscriptions to the stock of the Company may be made through this agency. This Company controls 27,000 acres of land in the richest part of San Diego County, where the finest raisins in the State are now made, and where nearly all kinds of fruit, particularly the apricot, pear, apple and olive, are raised to perfection without irrigation, and where, in proper sites, the orange and lemon are successfully grown with such slight irrigation as may be provided by means of windmills. The property commands ample means for irrigation whenever its settlers may desire to use the same.

This property is being subscribed for at an average price of less than \$10 per acre to the stockholders; 2500 acres of choice land, platted and laid out with broad avenues, will be immediately allotted to subscribers in severalty. This tract of platted land is worth and has been selling for \$100 per acre, but it is included in the whole tract at the average price; 10,000 acres of the whole tract are arable; the balance grazing lands.

THE DIRECTORS

of this Company will soon be announced officially, as follows:

- ARAD HARASZTY, President,
- DR. JOSEPH JARVIS, Vice-President,

- GEORGE WEST,
- GEORGE A. COWLES,
- CHAS. A. WETMORE.

The Trustees, during the subscription to the stock, is Mr. Bryant Howard, the cashier of the Consolidated Bank of San Diego. Wm. B. West, Esq., who has made special studies in viticulture and horticulture and who has studied raisin-making in Spain, as well as in this State, is a subscriber to the stock of the Company and will devote considerable time during the coming Winter at the San Francisco office of the Company, for the purpose of giving information to those who may desire the same, concerning the prospects of this enterprise. Prof. Frederico Pohndorff has engaged a portion of the land and stock with the object of establishing an olive orchard.

Those who subscribe early and make early selections of the platted land will never regret doing so. It is expected that all the land will soon be taken up. Samples of fruit, raisins and wine, raised in the El Cajon Valley, can be seen at this office; also maps and the plan of the subdivided tract.

Those desirous of purchasing a large tract of land—say 10,000 acres, part grazing and part arable—partly the finest alfalfa land, can find a good opportunity, if applied for soon, as the company can dispose of that much for each in one body in terms that will be most advantageous.

- CHAS. A. WETMORE,
- No. 111 Leidesdorff Street,
- Branch office:
- No. 321 Montgomery st.,
- San Francisco.

For information address also: GEO. WEST, Stockton. DR. JOSEPH JARVIS, San Diego.

KEEPING UP BUSINESS.

Success in business matters is a subject that has been well worn by trade papers, and yet there is one feature that is connected with the matter that will bear considerable comment. That feature is how to maintain a successful business after it has once been obtained. Examples are numerous where merchants have worked hard, built up a fine business, and were making money, when a palsy would seem to have fallen on their business, and the trade they had worked up rapidly dwindled away.

There must be some reason for such a change, and it is not hard to find. The simple fact of the matter is that no business, even at a successful stage, will run itself. Here is where many men make a mistake. Being in a prosperous condition, they say to themselves, "I will eat, drink, and be merry, for my business will now take care of itself." But a grand mistake is made, and, left to itself, the business does not gather volume of its own accord, but goes down hill with an astonishing rapidity.

We believe it takes as much or more energy and push to maintain a business than it does to build it up. This is a truth that will apply to enterprise of every kind. How soon Stewart's immense trade was lost when left to run by its own momentum. In commercial matters eternal vigilance and work is the price of success. He who neglects to use every means to increase his trade must inevitably run behind. There are no commercial hitching-posts, where a man can tie and henceforth take his ease. Mortgages and Government bonds are about the only business investments that do not suffer by neglect. A house divided against itself can not stand, and a business without pushers is in a divided condition.

—St. Louis Grocer.

RIPARIA CUTTINGS.

We offer the above from \$4.50 to \$7.50 per M., according to size. They are cut fresh and hoveled in every day, from the vineyard of Judge Staley, near Suscol, Napa county. The wood is much shorter jointed and better ripened than imported cuttings, and guaranteed true. There are frequently five buds on a cutting, where there will be only two or three on one of the same length raised in Nebraska or Missouri. We have used imported cuttings for the past four years, and our experience, together with others, abundantly proves that cuttings raised here will root 90 per cent, against 15 or 20 per cent of the imported ones. This we will demonstrate to any who will call at our nurseries. Therefore, 1,000 of our *Riparia* cuttings are worth more than 5,000 of the Eastern ones.

Best references given.

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## THE EL CAJON ZINFANDEL.

Here is another positive testimony as to the quality of the Zinfandel wine made this season from the El Cajon maiden crop:

SAN FRANCISCO, Dec. 29, 1883.

Chas. A. Wetmore, Esq., San Francisco—

DEAR SIR: The sample of Zinfandel claret you sent me, made on the El Cajon property, near San Diego, has caused me a most gratifying and agreeable surprise. Without the sample, I would not have believed that any place located so far south in our State could produce a claret with all the characteristics and best qualities of the wine produced from the Zinfandel grape in our most favored cooler northern counties. Since its reception I have tasted this wine carefully, and many times during the day, to ascertain whether I could detect any objectionable peculiarity, and have failed to do so. It is an excellent wine in depth and tone of color, in that elegant characteristic, Zinfandel bouquet, that inviting freshness of taste belonging to the wine of this grape, accompanied by a pleasing astringency, and possessing a good body, without any lingering sweetness. In short, it is a characteristic and good Zinfandel claret in every sense.

The Zinfandel grape I have found to be the most sensitive of any grape coming under my observation in our State, and loses most of its characteristic finer qualities, such as bouquet, flavor and agreeable freshness, whenever planted in any soil or climate that is the least ungenial. In this sample from San Diego it has retained everything, and I can safely say that the land on which it was grown is capable of producing most excellent wines without irrigation. With a view to ascertaining its alcoholic strength, I made three tests, and find the sample to be 12.4 strong, which shows an excellent and complete fermentation, there being to the palate no perceptible amount of saccharine left.

I may say here that I have for many years been a firm believer in the great agricultural and horticultural resources of San Diego county, and have continuously refused to dispose of lands acquired there by my father and grandfather in 1850, and which are still held by our family. This belief I inherited from my father, whose confidence was such that, in 1850, he organized a company among his friends to plant a vineyard and horticultural garden in the Mission Valley, and work begun for a wine vineyard, from records in hand, on the 14th of March, 1850, and finished February 13th, 1851. These plantations were made, I believe, on the present lot No. 1107 of the hundred and sixty acre range, and Joseph Reiner was put in charge. Upon my father's election to the Assembly the plantations were discontinued, and afterwards entirely abandoned.

I remember distinctly the bringing and planting of grape cuttings from the old Mission of San Luis Rey, and the planting of grape seeds taken from boxes of Malaga raisins, as well as date seeds, tobacco, and all manner and kinds of vegetable seeds. Had these efforts been properly sustained, the horticultural status of San Diego county, I believe, would be the second to none in the State. In closing, let me say that I do not think the future of San Diego county lies either in the ungeniality by San Diego, or the price of its house lots, or its unrivaled climate. All these are well enough in their way, but its true prosperity will come from the proper development of its horticultural and viticultural resources, which, after recent careful examination, I consider to be unexcelled by any part of our State. Yours sincerely,

ABRAHAM HARRISZKY.

## THE RAISIN INDUSTRY.

Mr. William B. West is unquestionably the best informed man in this State in the matter of raisin culture. Having had a ripe experience as a pioneer wine grower and nurseryman on this coast, he was well prepared to make the investigations that he undertook in going to Spain to study raisin making at Malaga. He gave the subject close attention, and has frequently made public his observations. At Sacramento, three years ago, he delivered the lecture on raisins before the Sacramento Valley Viticultural District meeting, presided over by Mr. Blowers. His remarks were widely published. We remember that at the close of his lecture, being questioned as to the climate of Malaga, he said it was more delicious and mild than the climate of California. He was then asked by Mr. Wetmore whether he had ever visited Southern California, and particularly San Diego county. He replied that he had not done so; and Mr. Wetmore told him that he would find the climate of Malaga at San Diego. This was three years ago. This year Mr. West has visited San Diego, and becoming charmed with its climate and prospects, has invested in land, and is now planting a vineyard of Muscat grapes there. This much a *propos* to the following extract from a letter, which he has written to us in response to an inquiry about raisins, etc. He now writes:

"I have watched with much interest the progress of raisin culture in this State, and have long been of the opinion that the Muscat varieties for raisins are not a perfect success in the northern portions of the State, except in a few localities. There are still many boxes of good raisins made, but not near the quantity that was anticipated. The reason for this is that the Muscates are very sensitive to climatic influences. A cold wind during the season of indolence will render the blossoms sterile; a hot spell during the early summer will cause the fruit to drop, or a cold summer will retard the maturity of the fruit so that it is difficult to cure, while the early fall rains often destroy the crop, or render costly artificial methods for drying necessary. It is a well known fact that there is no place in Europe where the Muscat grape can be successfully grown, except in the district surrounding Malaga, where the climate is exactly suited to it. This will be found to be the case here. Only in choice localities, fitted by nature for its growth, will it be found profitable to cultivate them for raisins."

"A careful consideration of the conditions necessary, and a study of its products, lead me to believe that the southern portion of this State, the counties of Los Angeles, San Bernardino and San Diego, are particularly favored with the climate necessary, and well suited to the raisin culture of California. These remarks apply, of course, only to favored portions of those counties, sufficiently moist and free from damp fogs and hot blasts."

"As you request my opinion particularly about San Diego county, I will say that, previous to our visit to the last summer, I had supposed that it was almost a desert, possessing, it is true, a fine climate and one of the best harbors in the world, but was only a cattle range and a sanitarium, a dry, arid waste. To my surprise, I found many beautiful fertile valleys, producing fine, rich, purple, thin-skinned grapes, which, when cured, made the best of raisins—flame-colored Tokays, of such a size and rich, ruby color as I had never seen before, and which would be profitable to grow for either San Francisco or the Eastern market. There are other varieties of late-ripening grapes of a finer texture, suitable also for the Eastern market. I am told that apricot peaches and prunes do well, although I did not see them, but am satisfied, from the vigor of the trees, that it is the case."

"The apples were the greatest surprise to me—hard, firm, and of the finest flavor, they rival the best of our mountain fruit. No better investment can be made in the

fruit line than the planting of an orchard of Newtown pippins or Grav-stown apples in San Diego county."

"The pears also were of the same nature, firm and good-flavored, suitable for Eastern shipment."

"It will astonish you perhaps when I tell you that beside the apple, pear, plum and peach, they can grow the orange, lemon, lime and pomegranate to perfection; that the guava is profitable; that the olive is thirty and wonderfully productive; that all these can be produced at little expense, in most places without irrigation; that there is a freedom from blight, mildew and insect pests that is unknown in other parts of the State; that, with all this, they have a most delightful climate, a foothill country with a seaside air, and a soil not worn by previous cultivation."

"I have become so much impressed with the value of the lands in San Diego county, that, with some of my friends, I have purchased a large tract for the purpose of planting a vineyard and orchard. I have also taken an interest in the El Cajon Land Company."

## TRICKS OF FRENCH BRANDY MERCHANTS.

The French brandy merchants are much moved at the publicity given to the tricks of their trade in the English newspapers. The figures given by their own Minister of Agriculture in his recent report on the wines of 1882, are conclusive as to the fact that the vineyards of the two Charentes, which alone supplied the genuine wine brandy, are irrevocably ruined. These two departments, which were devoted almost wholly to grape culture, gave 311,000,000 gallons of wine in 1875. Last year they only gave one-eighth of that quantity, being a falling off of 273,000,000 gallons, and the quality was execrable. The condition of Charente proper, which produced the true cognac, is even worse, for the vintage only gave the twenty-second part of the yield of 1875, and the ravages of phylloxera are each successive year going from bad to worse. In fact, the pest has now utterly destroyed throughout France nearly 2,000,000 acres of vineyards. Besides this, 3,000,000 acres more are now in different stages of destruction, which goes on at the rate of three years to each plant, for that is the time the insect takes to kill the hardest vine.—N. Y. Sun.

A man has invented a chair that can be adjusted to 800 different positions. It is designed for a boy to sit in when he goes to church.

## RIPARIA CUTTINGS.

The superiority of California grown Riparia Cuttings over those imported from the East can be proved, and demonstrated to the satisfaction of anyone who may call at our nurseries. Whereas a 15 to 20 inch imported cutting will frequently have only two or three buds, those raised here, which we offer for sale, have from five to seven, and the wood is also better ripened. We do not hesitate to assert that

**1000 of home raised Riparia Cuttings are worth 5000 of those imported,**

and we can prove it from our own experience, and that of others.

We have now about 250,000 made, which are heeled in every day as they are cut, and have more to make. Our expenses in obtaining these cuttings (from the 3 year old vineyard of Judge John A. Stanly) are very great; but we offer them at the low rate of \$4.50 to \$7.50 per M., according to size. References given if desired.

## COATES &amp; TOOL.

NAPA, CAL.

## SEASON OF 1884!

## VINES AND VINE CUTTINGS

I take pleasure in informing my patrons that I shall be able to furnish, if called for soon, limited quantities of

## GENUINE CUTTINGS

Of the following rare varieties:—FOLLE BLANCHE, COLOMBAR (Sanvignon vert) MATARO, CARIGNAN, GRENACHE, PETIT PINOT (Crabb's Black Burgundy) CHACHE NOIR, TROUSSEAU, MEUNIER (same as the so-called French vine of Mr. Schaeffer—misnamed), CHARBONO, FOLLE NOIRE, MALBECK (same as Letranc's so-called Cabernet-Malbeck) MOSELLE RIESLING, WEST'S WHITE PROLEPIC, MUSCAT OF FRONTIGNAN, SEEDLESS SULTANA, etc.

The prices of the foregoing are capricious and some of the varieties, particularly MATARO, MALBECK, CARIGNAN, MEUNIER and WEST'S WHITE PROLEPIC, are nearly all engaged at the present time.

Price lists will be forwarded to those inquiring, as circumstances vary them.

Also, all the Well Known Varieties such as ZINFANDEL, RIESLING, CHASS-SELS, CHACHE GRIS, BERGER, MUSCATS (Gordo Blanco and Alexandria) FLAME TOKAY, etc., etc.

## ROOTED VINES.

Particular care will be taken in respect to rooted vines to guard against infection by diseases. I can furnish rooted ZINFANDEL, MALVOISIE, VERDAL, PEHER ZAGAS, CHARBONO, etc.; at varying prices, according to the demands of different purchasers.

Also a few thousand CALIFORNIA SEEDLINGS; RIPARIA SEEDLINGS all engaged.

## RIPARIA CUTTINGS.

Having made necessary arrangements, I am prepared until January 15th to offer fresh RIPARIA CUTTINGS from the forests of Nebraska—car load already arrived in better condition than ever before received in this State, as follows:

36 inch CUTTINGS at \$10.00 per M.  
 42 " " " " \$12.00 " "  
 Ten per cent off for cash within 10 days after receipt and acceptance of orders.

For those who desire shorter lengths I will furnish

10 to 15 inch cuttings at \$3.50 per M.  
 15 to 18 " " " " \$5.00 " "  
 18 to 20 " " " " \$6.00 " "

But I advise purchasers to take the long cuttings and prepare them to suit themselves. This is the cheapest offering of Riparia cuttings ever made in California.

All of these Riparia stocks not sold before January 15th will be sold at public auction to the highest bidder.

## SEED.

I have fresh Riparia seed (from Nebraska) to offer at  
 \$2.50 per lb. for less than 5 lbs.  
 \$2.00 " " " " 5 lbs. and more.

Also, Fresh California Seed at  
 \$1.50 per lb. for less than 5 lbs.  
 \$1.00 " " " " 5 lbs. and more.

## CIRCULARS

will soon be ready to explain the importance of certain of the rarest varieties and will be furnished on demand.

Address  
 CHAS. A. WETMORE,  
 No. 321 Montgomery St., or  
 No. 111 Leidesdorff St.,  
 San Francisco, Cal.

P. O. Address  
 No. 111 Leidesdorff St. S. F.

What a waste of water power! It is estimated that ninety thousand millions of cubic feet of water pour over Niagara every hour. Estimating the fall at 168 feet, this means about 600 million horse power running to waste.