3529. Adulteration and misbranding of wine. U. S. v. 60 Barrels of Wine. Tried to the court. Finding for the Government. Product released on bond. (F. & D. No. 5458. I. S. No. 84-h. S. No. 2032.)

On December 2, 1913, the United States attorney for the Western District of Missouri, acting upon a report by the Secretary of Agriculture, filed in the District Court of the United States for said district a libel for the seizure and condemnation of 60 barrels of wine, remaining unsold in the original unbroken packages at Kansas City, Mo., alleging that the product had been shipped by The Engels & Krudwig Wine Co., Sandusky, Ohio, and transported from the State of Ohio into the State of Missouri, and charging adulteration and misbranding in violation of the Food and Drugs Act. The product was labeled, "The Engels & Krudwig Wine Co., Ohio Claret Wine, Sandusky, Ohio. Containing Harmless Coloring."

Adulteration of the product was alleged in the libel for the reason that it had been mixed with a substance, to wit, pomace wine, so as to reduce, lower, and injuriously affect its quality and strength; further, in that pomace wine had been substituted, in whole or in part, for the article and substance represented to be contained in the barrels, in that the labels and brands on said barrels represented and stated that the contents thereof were Ohio claret wine, when, in truth and in fact, said barrels contained a pomace wine; and, further, in that the product was a pomace wine, artificially colored, in a manner whereby its inferiority was concealed. Misbranding was alleged for the reason that the product was labeled as aforesaid, and that said brands and labels on each of the barrels were false and misleading in that the said wine was offered for sale under the distinctive name of another article, to wit, Ohio claret wine, when, in truth and in fact, it was a pomace wine; further, in that the product was labeled and branded so as to deceive and mislead the purchaser thereof, in that said labels and brands on the barrels represented and stated the contents thereof to be Ohio claret wine, when, in truth and in fact, the barrels contained a pomace wine; and, further, in that said labels and brands upon each of the barrels bore statements regarding the ingredients and substances contained therein which were false and misleading, in that said labels and brands stated and represented that the contents of the barrels were Ohio claret wine, when, in truth and in fact, each of the barrels contained a pomace wine.

On December 31, 1913, the said Engels & Krudwig Wine Co. filed its claim and answer to the libel, and on May 13, 1914, the case having come on for trial before the court, evidence was submitted in full by the Government and by the claimants, and arguments of counsel were heard. On July 16, 1914, the following memorandum opinion, finding for the Government, was delivered by the court (Van Valkenburgh, J.):

Succinctly stated, the libel of the Government charges that the wine in question was misbranded, in that the brands and labels on the barrels represented and stated the contents thereof to be "Ohio Claret Wine," when, in truth and in fact, it was not Ohio claret wine, but was a pomace wine, either in whole or in part, by substitution or otherwise. The defense is that the wine is Ohio claret wine and denies that said barrels contained pomace wine, or that pomace wine has been substituted, in whole or in part, for claret wine in said barrels, or any of them. Claimant further asserts that said wine was made from red grapes, that a sugar solution was added, and also a small amount of artificial coloring, all in conformity to Food Inspection Decision 120 of the United States Department of Agriculture. Both the Government and the claimant rely upon said Decision 120 in connection with the general provisions of the act in support of their variant contentions.

A great amount of testimony, expert and otherwise, was taken at the hearing. The issue framed is, however, not a complex one. It is incumbent upon the Government to establish, by a fair preponderance of the evidence, to the satisfaction of the court, first, that the contents of the barrels libeled were not Ohio claret wine within the purview of the law and of the definition established by the food department, and accepted and invoked by the claimant; second, that the contents of said barrels were a pomace wine outright or that a pomace wine had been substituted, in whole or in part, for Ohio claret wine. It will be readily seen, therefore, that the determination of the controversy must depend upon what the court finds the article to be, and it is to the solution of this disputed question that the evidence is directed. It follows that

it is first necessary to determine what a legitimate claret wine must be; second, what the contents of these barrels have been shown to be. Great prolixity of statement on the part of witnesses and the pronounced technicality which characterizes the expert chemical testimony introduced render impracticable an extended analysis, in this memorandum, of the evidence produced at the trial. It will be sufficient if the court adverts with sufficient exactness to the essentials disclosed which control the conclusions reached.

Decision No. 120, above referred to, permits the addition of a sugar solution to grape must before fermentation. If the resulting product by complete fermentation of the must under proper cellar treatment does not contain less than five parts per thousand acid and not more than 13 per cent of alcohol after complete fermentation, that product may be labeled "Ohio Wine," qualified by the name of the particular kind or type to which it belongs. Respecting pomace wine, said Decision No. 120

has this to say:

"The product made in Ohio and Missouri by the addition of water and sugar to the pomace of grapes from which the juice has been partially expressed, and by fermenting the mixture until a fermented beverage is produced, may be labeled as 'Ohio Pomace Wine' or 'Missouri Pomace Wine' as the case may be. If a sugar solution be added to such products for the purpose of sweetening after fermentation they should be characterized as 'Sweet Pomace Wines.' The addition to such products of any artificial coloring matter or sweetening or preservative other than sugar must be declared plainly on the label to render such products free from exception under the Food and Drugs Act."

We have then comprehended within the same decision the definition of Ohio claret wine and of Ohio pomace wine, which must govern this discussion, and to which in fact both parties appeal for justification. It will be noted that the permission to add artificial coloring matter is necessarily confined, by construction and context, to pomace wine. It appears in view of the earlier clauses of the decision, to wit:

"It has been decided after a careful review that the previous announcement is correct and that the term 'wine' without further characterization must be restricted to products made from untreated must without other addition or abstraction than that

which may occur in the usual cellar treatment for clarifying and aging."

That with the exception of the addition of the sugar solution thereafter expressly permitted, all other additions and abstractions are excluded. Claret wine made from the entire content of the grape is conceived to require no addition of artificial coloring. Pomace wine made from the impoverished content remaining after the partial expression of the juice requires such coloring to render it merchantable, and to such the use of harmless coloring matter is restricted. No offense is charged because of the addition of the coloring matter if the product should be held to be a claret wine; but this state of the law is pertinent as bearing upon the identity of this product. It is a matter to be considered by the court whether parties familiar with the law would be presumed to add coloring matter to a product from which, by the terms of the act, it is, at least inferentially, excluded, and whether they would not, in like manner, be presumed to add coloring to a product for which it is expressly permitted.

A pomace wine then, under this act and within the designated territory, is any product made by the addition of water and sugar to the pomace of grapes from which the juice has theretofore been partially expressed and by fermenting the mixture until a fermented beverage is produced. Under this definition it is immaterial to what extent the juice has been partially expressed—whether to a limited degree or almost entirely. The resulting product, made in other respects as it is contended and admitted that this article was made, would be a pomace wine, and if such a situation is established by the evidence, then the charge in the libel is sustained; as also, if a product thus falling within the definition of pomace wine has been added to or sub-

stituted for an unimpeachable Ohio claret wine.

It is necessary, as well as desirable, then, at the outset, to determine, if possible, some characteristic of Ohio claret wine which stamps and identifies it as the legitimate product, and the absence of which condemns the product as spurious in the eye of the law. The Government, in this case, takes the positive ground that that essential characteristic is total tartaric acid, whether free or in the form of cream of tartar or both; that in the finished wine, made in accordance with the law, that constituent must not fall below a minimum fixed as 0.2 per mille. If it is found in appreciably less quantity than that, its absence indicates that a part of the total grape content has been withdrawn. In other words, that the product has been made from a pomace of grapes from which the juice containing the missing percentage of this characteristic acid has been partially expressed. This contention is, of course, combatted by the claimant.

The so-called wine under discussion was made by the claimant company at San dusky, Ohio, from red grapes alleged to have been of Concord and Ives varieties in about equal proportions. These grapes were said to be not quite up to the standard, in that they were a little light in color, with a few berries, on some of the bunches, evidencing a slight effect of hail. They were, however, of fair quality and were up to the standard in that particular district for that year. They were delivered at the winery in the early part of October, 1912, and were treated, and are alleged to have been made into wine that fall. About one year thereafter, to wit, October 13, 1913, claimant shipped 60 barrels of this product to Antonio Basile & Co., Italian wine merchants, located in the north part of Kansas City, Mo. It was sold for 32 cents per gallon, being 5 or 5½ cents less than the average price of Ohio claret wine at that time, and 4 cents more than the average price of pomace wine. This shipment was received in Kansas City 10 days thereafter, and, before storage by the purchaser, a food and drug inspector drew from one of the barrels four full quart bottles; these bottles were securely corked and the seal of the Bureau of Chemistry placed thereon. An analysis was made of two parts of this sample by Mr. Ingle, a chemist of the Bureau of Chemistry, on the 23d day of November, 1913. This analysis resulted, December 2, 1913, in the seizure upon which this libel is based. This chemist Ingle was not at the trial, and after some debate between counsel his analysis was not introduced in evidence. However, on January 27, 1914, another chemist of the department, named Hartmann, analyzed one of the four bottles thus taken. He testifies that this bottle was full, well corked, and in good condition when his analysis was made. The samples taken had been carefully packed and forwarded by express to the Bureau of Chemistry of the United States Department of Agriculture at Washington. One of these bottles was, in like manner, delivered to th

The final result of the testimony was that Dr. Hartmann's analysis is, and is substantially conceded to be, correct Dr. Robinson, on behalf of claimant, stated that he had no reason to criticize it; that such differences as existed between [Dr. Hartmann's analysis] and his own, aside from those due to the usual differences in computation by different analysts, would be naturally accounted for by what might be presumed to be the difference in condition of the bottles when received by the respective chemists. So that we may start with the presumption that the analysis made by Dr. Hartmann, on behalf of the Government, was substantially correct. This analysis showed that the product contained a total acidity of 0.649 and total tartaric acid of 0.05. It will be noted that the total tartaric acid was but one-fourth of the amount fixed by the Government as the necessary minimum of a true wine product. The total acid agrees substantially with that testified by the claimant as having been shown at the winery by the acidimeter test. The wine left Sandusky presumably properly prepared for transportation by experienced dealers. The railroad company presumably handled it in accordance with approved methods. These presumptions stand uncontradicted in the record. But 10 days had elapsed between the date of this shipment and that on which the analyst's samples were taken. It may fairly be assumed that on the latter date it was in substantially the same condition as when it started; and the analysis, as respects the total acid content, confirms this presumption. Of that total acid content but 0.05 was tartaric acid in any form. The Government regards this as determinative of the controversy. The defense minimizes its

importance.

All of the chemists finally agree, substantially, that tartaric acid is the characteristic acid of the grape. It is that which distinguishes it from other fruits. This fruit alone contains this type of acid in marked degree. It is the predominant and identifying acid of the grape. Dr. Alwood, on behalf of the Government, states that tartaric acid in no less percentage than 0.2 must be found in any authentic Ohio claret wine. Dr. Robinson says that the presence of tartaric acid in any fixed amount is no test of purity. The experience and qualifications of Dr. Alwood are fully set forth in the record and will not be repeated here. It may be sufficient to say that he has been for many years attached to the Bureau of Chemistry; that he is an expert in viniculture of international reputation; he has spent approximately seven years at the head of the Government's experimental station for the express purpose, among other things, of determining the exact characteristics of authentic wines, particularly in the Sandusky, Ohio, district. This service had no commercial object in view. The purpose was to establish, by unimpeachable experimentation, the exact qualities and characteristics of true wines, such as the food and drugs department has to deal with. He has made a vast number of experiments under conditions calculated to produce exact and practical results. From these he states with great positiveness that no

true Ohio claret wine can possibly contain less than 0.2 [per cent] of tartaric acid even when aged to the extent of three years and under exacting filtration; that in the wines he has made he has never found it so low as that, but usually about 0.3, and even as high as 0.5; that in no condition, here shown to exist, or which we are justified in assuming, in connection with this discussion, can that tartaric acid disappear to any appreciable extent. The minimum of 0.2 is placed arbitrarily as a matter of extreme concession in the interest of justice, although he freely states that he does not believe it can fall that low in an authentic wine. In addition to his own manufacture of wines he has examined a large number of commercial samples and finds that the great majority corroborate his own experiments. It is true that in some a smaller percentage of tartaric acid is found, but they were, as has been said, from commercial samples not authenticated and subject to legitimate suspicion as to the methods employed in their manufacture.

Dr. Robinson, the chemist employed by claimant, has analyzed a great many samples of the wines of commerce bought in the usual manner upon the market and otherwise unauthenticated and of unknown history. From such experiments he draws the deduction that the presence of tartaric acid is too inconstant to serve as a dependable test of purity. He also cites text books, compilations, etc., which do not affirmatively prescribe this test, and some of which do not disclose the presence of the percentage insisted upon by the Government. Dr. Alwood, in his rebuttal testimony, has to a very large extent explained and reconciled this apparent discrepancy. It may be sufficient to observe that none of the text writers submitted are shown to have been wine experts. Moreover, nearly all the data collected come from widely separated territories and involve conditions and methods which differ greatly from those to be found in the Ohio district. They also very greatly antedate the passage of the Food and Drugs Act. They concern a period when the objects to be obtained by that act were not prominently in mind and when the very practices may be presumed to exist which that law was enacted to remedy. We may likewise not ignore the possibility, if not the probability, that practices still exist, as exemplified in commercial products, that are in conflict with the provisions of the Food and Drugs Act. Experiments made from such products can in no sense compare with those made by Dr. Alwood with the sole object of establishing dependable scientific standards. As has been said, Mr. Krudwig testified that the grapes used were not quite up to the standard, in that they were a little light in color with a few berries on some of the bunches evidencing a slight effect of hail. They were, however, stated to be of fair quality and were up to the standard for that particular district for that year. This being so, their inferiority, if they were appreciably inferior, could not account for the low tartaric acid content, and it conclusively appears from the testimony that grapes a little underripe carry even a higher percentage of that acid. It must be remembered also that this wine was but a year old and had not been subjected to the severer processes of filtration applied by Dr. Alwood in his tests, which were made with wine at least three years old. A higher percentage of the characteristic fruit acid should be found

in the younger wine.

Dr. Robinson, on behalf of claimant, having stated it to be his opinion that tartaric acid in claret wine varied so greatly in amount that it should be disregarded as a test of purity, proceeded to detail other chemical properties by which the character of wine could be determined The following questions and answers were propounded

and returned:

"The Court. Doctor, in view of the matters which you have eliminated as proving nothing respecting the contents of the product and its relation to whether it was or was not a fruit juice, what have you left there in chemical analysis which stamps the product as the pure product of the grape?
"Answer. Well, the total solids, the nonsugar solids, the ash and the character of

the ash, the natural color, flavor and aroma.

"The Court. Laying aside the color, the aroma and that sort of thing, might not those other abstract properties which you have referred to be produced from other than grape or fruit products?
"Answer. Well, that is possible to some extent.

"By counsel:

"Do you have any reason to question the accuracy of the Government chemists' analysis of this wine?

"Answer. No, sir; not in the least.

"Question. Have you ever found a single instance in which said grape juice did not contain tartaric acid?

"Answer. Grape juice, as I said before, I never found a single instance in which tar-

taric acid was entirely out of grape juice." If we accept the contention of the claimant in this regard these anomalies are presented: Tartaric acid is the characteristic acid of the grape; it is the predominant acid distinguishing the grape from other fruits. Nevertheless we are told that it is not necessarily found in any marked degree in a grape wine product. We are left, in the matter of chemical analysis, to other abstract properties which may be found as well in other than grape or fruit products. In other words, we may and must disregard the characteristic, distinctive, and predominant ingredient—the very essence as it were, of the grape. This is to say, that we are left without the most obvious and convincing means of identifying a true claret wine. I can not accept such a paradox. Other matters were dwelt upon in the testimony; notably, the pentosans and the alkalinity of the ash. I do not base my decision upon this branch of the testimony. It is sufficient to say, however, that its ultimate effect tends strongly to corroborate and confirm the conclusion based upon the crucial tartaric acid test. Wine experts were produced who applied the tests of taste and smell to the libeled product. The consensus of their testimony was that that product was not a claret wine. Claimant's explanation of this was that the wine had spoiled; that destructive acetic acid fermentation had set in to such an extent as to render such tests untrustworthy. This, so far as the court can perceive, is the full effect of what has been spoken of as the defense of acetic acid. The testimony does not justify the inference that the wine differed materially in acetic acid content at the time the first samples were withdrawn, compared with its condition on the date of shipment. The cooperage of the barrels from which the letter samples were taken was unimpaired. This subject, as dealt with by the chemists, requires no elaboration here. In view of all the circumstances, nothing in that defense accounts for the absence of the predominant acid of the grape as shown by the analyses.

accounts for the absence of the predominant acid of the grape as shown by the analyses. In further defense claimant produced two witnesses, Mr. Krudwig, a member of the claimant company, and Mr. Crathwal, its foreman, who testified positively that the contents of the barrels are Ohio claret wine and not pomace wine, in whole or in part. With respect to these witnesses, the court, in all kindness, must point out that their claim of scrupulous personal attention to every detail affecting this wine from the time the grapes went into the press until the shipment a year later, presents a remarkable departure from the ordinary and usual course of business, even at their own winery. Their recollection of each step taken, at a time so far removed from the actual occurrences, is not less remarkable. Their interest is, of course, conceded, and the fact that there were at that time in the winery at least 25,000 gallons of pomace wine, used, among other things, for blending purposes. To reject or in any sense to discredit the positive testimony of an individual witness is never a pleasant duty for the court; but it is the settled rule of the Court of Appeals of this circuit, and, I believe, in practically all Federal and State jurisdictions, that where the testimony of a witness is positively contradicted by the physical facts, neither the court nor a jury can be permitted to credit it. (Missouri, Kansas & Texas Ry. Co. v. Collier (C. C. A.), 157 Fed. 347.) If these barrels, otherwise shown to be intact, had been found to contain pork, no witness could be indulged in the statement that he personally packed them with beef. To my mind, the proof that the contents of these barrels are not an Ohio claret wine, as concededly defined, is not less positive and convining. The testimony of Dr. Alwood and Dr. Hartmann as to the contents of these barrels, chemically considered, is not opinion testimony. It is scientific testimony based upon actual facts. By exhaustive experimentation they have determined, as other facts are determine

On October 10, 1914, the final decree of the court was entered, finding the product misbranded in conformity with the foregoing opinion, and it was ordered that the product should be delivered to said claimants, upon payment of the costs of the proceedings, and the execution of bond in the sum of \$1,000, in conformity with section 10 of the act.

CARL VROOMAN, Acting Secretary of Agriculture.