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AGRICULTURAL EXPERIMENT STATION

OF THE

STATE COLLEGE OF KENTUCKY.

BULLETIN NO. 100.

INSPECTION AND ANALYSES OF FOODS.

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INSPECTION AND ANALYSIS OF FOODS

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the Governor from the
Director of the Kentucky
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BULLETIN NO. 100.



Inspection and Analyses of Foods.

Summary by
M. A. SCOVELL, Director.

Under an act of the Legislature of 1900 regulating the manufacture and sale of food, this Station is empowered with the enforcement of its provisions. This bulletin gives the results of the work to Jan. 1, 1902.

The present law went into effect June 15, 1900, but owing to the difficulty in getting funds from the State at that time, little work was done until the beginning of last year. In the meantime, however, preparations were made for thoroughly organizing the work under a division in this Station. A circular of information embodied in this report was prepared and sent, together with a printed copy of the law, to the grocers of the State and the manufacturers of food products and other parties, whom it was thought would be directly interested in the law and its enforcement. A thorough inspection in the large towns of the State was begun in January, 1901, as soon as we received check from the Auditor for the work previously done.

During the year 748 samples were taken by inspectors and tested for adulterations. Of these samples 227 were found to be adulterated or mis-branded under the law. In every case where a sample was found adulterated, the prosecuting attorney in the district where found was notified. Indictments have been made in Louisville, Lexington, Owensboro, Frankfort, and other places. In Owensboro and Frankfort, parties indicted pleaded guilty. I am informed by Mr. Kohn, my attorney in Louisville, that the pure food cases will come up in February.

Kentucky, situated as it is on the border of States which have rigidly enforced food laws, was made a dumping ground for adulterated foods which could not be sold in those States. Oleomargarine was advertised and sold as butter. Distilled vinegars, costing only a few cents to manufacture, were labeled apple or cider vinegars, and retailed in some cases as high as 40 cents per gallon. Peppers and other spices, containing in some cases as high as 50

per cent. of adulterants, were sold as genuine. Jellies made from the peelings and cores of apples and containing acid, sometimes sulphuric, in order to cause jellifying quickly, and colored usually with some coal tar dye to imitate the color of jelly desired, plum, currant, raspberry, etc., were labeled and offered for sale as pure plum, currant, etc., jellies. So strong was the sulphuric acid in a sample inspected that it acted on the mucous membrane of the mouth, even while testing it. It certainly would have been very injurious to have eaten a very small quantity of this jelly. We found all tomato catsups containing some antiseptic and usually salicylic acid. This antiseptic was sometimes in unduly large quantities. By the use of such preservatives, the manufacturers can, during the busy season, work the tomatoes up into "stock," that is, to partially boil the tomatoes, add the antiseptic and then store them away in vats until the busy season is over. Often the "stock" is shipped to jobbers without being bottled, and if showing any fermentation, it is again "doped" with antiseptic, and finally when bottled, antiseptic is added again as it is heated up. If no antiseptic is used, the tomato catsup would have to be bottled at the time it was made, insuring thereby cleanliness and healthfulness.

The good resulting from the enforcement of the law can be seen in the sale of almost every food product in the markets. The manufacturers and dealers are taking an interest, as shown by the many inquiries concerning the food standards, and this means that the goods will come into the markets properly labeled. The prohibiting of the sale of all injurious articles, and compelling all imitative, artificially preserved and adulterated articles to be so labeled, and to be sold on their own merits, is bringing a noticeably better class of foods to the Kentucky public. People will not buy adulterated goods if they know it. The consequence is, those goods which have to be labeled adulterated are not being brought into the State. The manufacturers of the various brands of baking powder are putting some kind of label on their packages to designate whether they are alum, or cream of tartar, or phosphate baking powders. The manufacturers of tomato catsup are either putting on the Kentucky market catsups containing no antiseptic or using a milder antiseptic benzoate of soda in small quantity, in which case they are labeling according to the law. In our first inspection we found formaldehyde, boracic acid, freezine, and

other preservatives used in milk. In our last inspection, no milks were found adulterated in this manner. The imitation fruit jellies and preserves are either being driven from the market or being labeled as such. There is more care among the confectioners as to the flavors served in soda fountain drinks than formerly. Distilled vinegars are being labeled, and sold as such, and I believe as soon as the cases can be tried in Louisville that oleomargarine will not be sold in the State, or sold in accordance with the law.

The manufacturers in some cases are evading the intent of the law by putting on adulterated foods labels of small type, placed in obscure places on the bottles, cans or packages. This question of labeling will receive special notice during the coming year. Sanitation and clean surroundings in handling food products will also receive attention. There are many instances where dairies, meat markets, and grocery stores present a very unhygienic depot for distributing foods.

The report which follows includes the work done under the old law from January 1 to June 15, 1900. The analyses up to this time were made by Dr. A. M. Peter, chemist of the station, assisted by Dr. Chase Palmer, Louisville, Ky., and Prof. J. H. Kastle of the college. When the new law went into effect, the Food Division was organized, and Mr. J. O. LaBach was elected chemist, and Mr. R. M. Allen, secretary. Mr. T. S. Byars, of Simpsonville, Ky., was also employed for a time as inspector in Louisville, and collected most of the samples of dairy products and oleomargarine analyzed from there.

The analyses in the body of this report have been compiled and the report written by Mr. R. M. Allen, whose untiring efforts in the enforcement of the law, deserves special mention, and receives my highest commendation.

Very respectfully submitted,

M. A. SCOVELL, Director.

ADULTERATED FOOD PRODUCTS.

...By...

ROBT. McD. ALLEN.

PURPOSE AND EXTENT OF THE WORK.

Chapter 13 of the Acts of 1900, approved March 17, 1900, went into effect on June 13, following. Since this law became effective, charging the Director with its execution, efforts have been directed to organize the food work into a separate division of the Station. This has been nearly accomplished and the work is now being conducted by those who give their entire attention and time to the many and varied phases of the food work; inspecting, analyzing, reporting violations to the courts, and attending as witnesses for the Commonwealth the indictment and prosecution of violations.

An effort has been made to put the Division in immediate touch with the Food Department of other States; with their experiences, methods and results in the enforcement of their respective State laws. Many inquiries are had from food manufacturers and dealers in regard to the law and its rulings, and the answering of these has in many instances been an effective means for enforcing the law's provisions.

Many manufacturers of many articles of food ship their goods into the State. Many grocers are engaged in distributing the many food products of varied quality and innumerable brands and labels. Almost every day some honest interest, prejudice, trick, or deception arising out of or affecting this vast business is presented for thoughtful consideration. The work of the Division is branching in every direction. This work for purer foods, cleanliness in handling them and honesty in the food business is an important one, and if prosecuted with diligence it will result in an immeasurable good to the consumer, the honest, intelligent food dealers and the producers of foods on the farms.

As yet the principal feature of the work has been an educational one. A copy of the law and the standards it authorizes have been mailed to most of the grocers and manufacturers throughout the

State. Farmers' institutes and grocers' conventions have afforded excellent opportunities for presenting the provisions of the law. A representative from the Station attended the National Association of State Food and Dairy Departments held in Buffalo, N. Y., October 15, 16, and 17, 1901, and listened to and took part in the discussion of the important subjects that were brought before the convention. The publication of the results of the analyses, together with the names of the dealer from whom each sample was collected, and also the brand, manufacturer or producer of the article is a wise provision of the law. The publicity attending this is one of the most effective means for the enforcement of the law's intent.

Kind and Number of Samples Analyzed.

Article Sampled.	Not Found Adulterated.	Adulterated.	Total.
Baking powder	5	36	41
Canned goods	12	..	12
Butter	116	5	121
Jellies, preserves, etc.	8	7	15
Milks (sweet and butter)	300	30	330
Minced meats	2	9	11
Oleomargarine .....	..	62	62
Olive oil and lard	13	1	14
Tomato catsup, sauces	3	50	53
Syrups, sugar, honey	15	..	15
Soda fountain drinks	43	26	69
Feeding stuffs	4	1	5
Total number found adulterated			227
Total number not found adulterated			521
Total number of samples analyzed			748

Baking Powder.

Number of samples analyzed	41
Number of samples found adulterated	36
Number of samples not found adulterated	5
Number of samples found to be alum powders	13
Number of samples found to be phosphate powders	3
Number of samples found to be alum-phosphate powders	19
Number of samples found to be cream tartar powders	6

The baking powders analyzed were mostly samples found without labels, showing the kind of acid salt from which they were made. Thirty-three of the forty-one samples proved to be alum and alum-phosphate powders, showing a disposition on the part of

manufacturers of this class of powders to avoid labeling them. However, while these samples were being collected, hundreds of cans were noted with some kind of a label as to the acid salt used; but in many instances the labels were obscurely placed on the cans in small print or worded so as to be misleading. Several samples labeled "cream of tartar" were found by analysis to be alum or alum-phosphate powders, but in no instance was a cream of tartar powder labeled "alum" or "alum phosphate."

The relative merits of baking powders still gives rise to unsettled questions. The position of the Station toward this subject remains as stated by the Director in the first report on food adulteration:

"Baking powders are a mixture of sodium bicarbonate and some form of acid salt, together with from one-fifth to one-half of their weight of starch or flour.

"Baking powders may be classed under four kinds, depending upon the acid salt used, viz: First, cream of tartar baking powders; second, alum baking powders; third, alum-phosphate baking powders; and fourth, phosphate baking powders.

"So far as their efficiency in bread-making is concerned, they are about of equal value; that is to say they all liberate about the same amount of carbonic acid gas when fresh. It is the liberation of this carbonic acid gas in the dough in the process of baking that causes the bread to rise and to be porous.

"When baking powders are used in bread-making, a chemical change takes place, caused by the water used in mixing the dough and the heat in baking the bread resulting in the evolution of carbonic acid gas, and a fixed residue remains in the bread. This fixed residue in the case of cream of tartar baking powder is potassium sodium tartrate, usually called "Rochelle Salts." In the case of alum baking powders or alum-phosphate baking powders, this residue, if the reaction is complete, is sodium sulphate and alumina hydrate or phosphate. In the case of phosphate baking powders, the residue is calcium and sodium phosphates.

"In the case of alum baking powders, or alum-phosphate baking powders, there seems to be a difference of opinion as to whether they are injurious to health or not. It often happens that the reaction is not complete in the process of bread-making. In all such cases, alum is left in the bread. This is known to be an astringent and irritant to the mucous membranes. Even when the reaction

in bread-making is complete, the alumina hydrate is undoubtedly soluble to some extent in the juices of the stomach and albuminous substances, thus irritating weak stomachs, and is undoubtedly injurious in such cases.

"I do not believe that by the use of alum baking powders injury to health has been sufficiently proven to prohibit the sale or manufacture of such baking powders. I am strongly of the opinion, however, that baking powders should be named and plainly labeled according to the acid salt which they contain."

Butter.

Number of samples analyzed	121
Number of samples not found adulterated	116
Number of samples found adulterated	5
Number of samples found adulterated with water	2
Number of samples found adulterated with foreign fats	3
Average price paid per pound when not adulterated	\$0 21
Average price paid per pound when adulterated	25

The adulteration of butter with oleo fats seems not to be practiced now as much as formerly. A fraud in the butter business is the production and sale of process butter. Process or renovated butter is made from the inferior grades of butter collected by the peddler in sections where there is little knowledge, skill or care of butter production. These scraps when collected are melted, churned and colored, and put upon the market as best dairy butter. Sometimes black pepsin or sulphate of soda are added to the mass during the process of churning, which serves to form an emulsion of the fat and water and causes the finished product to contain from forty-five to fifty per cent. of water. Close inspection is made for butter of this character.

During October of 1901 a process butter plant was started in Lexington, and the butter from the plant was put upon the market under the name and at the price of the best dairy butter. Samples were obtained very soon after the plant commenced operation, and the analyses of these samples shows that the butter contained an average of forty-five per cent. of water. As soon as discovered and the violation reported to the county attorney the managers of the plant acknowledged the fraud and ceased operation.

Much country butter of an inferior quality has been noted on the market; but this, like decayed fruit or wilted vegetables, condemns

itself, even when placed by the steward or boarding-house keeper upon the table, its odor betrays it, and there is no deception as to its quality, as might be in the case of the fruit or vegetable. This is a striking example of a great problem affecting the food industry; the problem of work and willingness wasted, because means and methods are wanting to produce a wholesome grade of the article over which much honest but misdirected labor is spent to produce.

Canned Goods.

Twelve samples of canned goods were analyzed for antiseptics and copper. This is a beginning of a study of this class of goods, and no inference can be drawn from this as to the purity of this class of foods generally. With canned goods the method of sterilization is used to preserve, but much testimony shows that antiseptics are often used to assist this method. Other results also show that copper, lead, zinc and other minerals are used to set or preserve the green color in canned foods of the character which depend upon their color or freshness for a popular sale.

Jellies, Preserves, Etc.

Number of samples analyzed	15
Number of samples not found adulterated	8
Number of samples found adulterated	7

Most of the eight samples not found adulterated were samples of home-made goods analyzed for comparison. The larger quantity of these goods bought in the open market were adulterated.

Very little of the commercial jelly is made from pure fruit juices and natural flavors. It is made largely from the by-products of the fruit canneries, such as apple peels and cores, and similar remnants of other fruits; and from glucose as a base which is jellied with commercial gelatine, flavored with an artificial acid and flavor, and colored with an aniline dye to the respective shade of the fruit it is labeled to have been made from. In a sample sulphuric acid was present in a notable quantity; in another pumpkin pulp served for filler, and this sample had the color, flavor, and label of apple butter.

Milks.

Number of samples analyzed	230
Number of samples not found adulterated	200
Number of samples found adulterated	30
Number of samples adulterated with antiseptics	15
Number of samples adulterated with water or skimmed.....	16
Number of samples containing formaldehyde	10
Number of samples containing boric acid	5
Number of samples containing artificial color	5

The methods of adulteration were watering, skimming, and the use of antiseptics.

Much of the milk sampled generally in Louisville was below the purity and quality of good milk. Samples taken in Newport and Lexington show very much less adulteration. Five samples of deceptive adulteration in Louisville are those that had been skimmed or watered, and then colored and thickened to represent rich milk. Similar adulterations are found in other foods, but in milk the universal food for infants, and often for invalids, this practice seems most criminal.

Milk is very easily disorganized, and readily affected by taint and impurities. Clean air, clean care, sterilization of all vessels, and ice, are the proper methods for keeping it sweet and, and insuring the wholesomeness of this delicate and important food. Antiseptics supplant this care, and their presence indicates inferior milk in addition to their harmful effect.

Mince Meats.

Number of samples analyzed	11
Number of samples found adulterated	9
Number of samples not found adulterated	2
Number of samples containing antiseptics	9
Number of samples containing borates	2
Number of samples containing benzoic acid	1
Number of samples containing boric acid	1
Number of samples containing salicylic acid	6

From the analyses of the samples collected it is evident that mince meats are as a rule preserved with antiseptics, especially since all these brands were bought in the open market. The antiseptic used in the majority of cases was salicylic acid.

Pepper.

All of the specimens of ground black pepper examined under the microscope by Prof. Garman were reported to contain some foreign material.

Ground spices and pepper are nearly always adulterated with some inert substance, which is used to increase the bulk of the article. Peanut shells, cocoanut hulls, brick dust, flour, ground corn, cracker meal, and other similar substances, are authoritatively mentioned among the list of refuse from which these fillers are made. There are factories which do nothing else but grind and color these fillers for the trade, and most of the pepper and spice houses have a regular system and plan for such adulterations. A leading example of the system was noted during an inspection tour. The proprietor of a spice and pepper grinding establishment pointed out on the third floor of his factory two long rows of barrels. One row had in each barrel a variety of pepper or spice, ground; the other had its barrels filled with a tasteless material, the color and fineness of the barrel opposite. From this floor the boxes were packed for consignment, and the proprietor stated that when a cheap pepper or spice was ordered, the order was mixed with its respective filler to suit the price. The retailer generally knows of this adulteration, but no instance has been noted where the consumer is made aware of it.

Such adulterations weaken the condiment, and instead of causing a quicker flow of the digestive juices, an extra burden of trash is put into the stomach.

Pure pepper is always cheaper than the adulterated article would be if the trash was separated from it.

Vinegar.

Number of samples analyzed	57
Number of samples found as represented	30
Number of samples not found as represented	27

Vinegar is a dilute form of acetic acid. Acetic acid is a product of alcohol, hence vinegar can be produced from all alcoholic sources. The common sources from which vinegar is produced are the apple, malt, the refuse wine in the grape countries, and the low wine from distilleries.

Apple vinegar has the superior flavor and the highest value as a condiment, and is the standard vinegar in the market. The high demand for apple vinegar causes the manufacturers of the low wine vinegars to advertise their product upon the reputation of apple vinegar, and also to label it under the name of "apple," "cider" and "fruit" vinegar, or "family" and "pickling" vinegar, which is clearly a fraud to the consumer, and an unjust competition to the fruit industries.

In August of 1901 the various vinegar factories in Louisville were inspected, and in no instance did it appear that the vinegar was being made from apples; but in most of the factories the stencils in use made it evident that the brands, "apple vinegar," "fruit vinegar," "Old Homestead apple vinegar," were in constant use. Samples taken from barrels bearing these brands were found to be spirit vinegar. The spirit vinegars were found to be colored with caramel and to contain artificial solids.

Tomato Catsup.

Number of samples analyzed	53
Number of samples found adulterated	50
Number of samples not found adulterated	3
Number of samples artificially colored	43
Number of samples containing antiseptics	47
Number of samples containing benzoic acid	42
Number of samples containing benzoic and boric acid	1
Number of samples containing salicylic acid	4
Number of samples containing saccharin	2
Color found in each instance, aniline dye.	

All except three of the fifty-three samples of tomato catsup and sauces examined were found to contain antiseptics, and forty-three samples were artificially colored with the aniline dyes. The artificial coloring suggests the inferiority of the products from which the samples were possibly made. A large amount of these products are probably made from tomato cores and skins, the by-products of the various tomato canning factories.

The lower grades of catsup are generally put up in barrels or tanks and shipped to the wholesaler, who puts the article into bottles bearing his own label. A large quantity of some antiseptic is necessarily needed to preserve the goods through the first careless exposure in barrels, and to keep it until the dealer puts it into bottles. The dealer sometimes adds more antiseptic in order to further stop fermentation during the long time, sometimes several

years, that his goods may await a sale on the grocer's shelf. A Louisville grocer stated that a quantity of catsup, from which a sample was purchased, had been on his shelf for eight years.

Olive Oils and Lards.

Number of samples analyzed	14
Number of samples found adulterated or not labeled to show the exact character	1
Number of samples found as represented	13

One sample of lard analyzed contained cottonseed oil. This sample was sold as compound lard to the one who purchased it. The word compound in this case did not show the exact character of the article, and the purchaser should have been made aware of the fact that he was obtaining a lard mixed with cottonseed oil. The only obvious advantage to be gained by such a mixture is that of selling the cottonseed oil at the price of hog fat. The consumer is in no way benefited by this; but instead, fraudulently imposed upon. Cottonseed oil is a food, but it is commercially cheaper than lard, and in justice to these products, as well as to the consumer, it should be sold under its own name and upon its own merits.

Syrups, Sugar and Honey.

Number of samples analyzed	15
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Granulated sugar is one of the uniformly pure foods on the market.

No attempt has been made to pass upon the flavor of the samples of maple syrups analyzed. It is evident and admitted that the larger quantity of maple syrup is not made from the sap of the tree, but from other sugars and the flavors of hickory or maple wood. Maple syrup, molasses and honey are largely adulterated with glucose. Glucose is not considered deleterious, but it is cheaper and inferior to the syrups in which it is often used to increase bulk; when used for this purpose the fact should be made known to the consumer.

Soda Fountain Drinks and Grape Juice.

Number of samples analyzed	69
Number of samples not found adulterated	43
Number of samples found adulterated	26
Number of samples containing salicylic acid	18
Number of samples containing aniline dye	16
Number of samples containing cochineal	1

The subject of adulteration with regard to the many soda fountain drinks is of no small importance. The soda fountain is patronized by children and young people largely, and to those who consume the larger portion of these drinks the antiseptics, artificial coloring matter, and artificial flavors used are most harmful.

The base of the drink served at the fountain is carbonated water, which is considered beneficial and is most refreshing. When a fresh fruit flavor is added to this carbonated water, together with ice or ice cream it is a most delightful drink. When spoiled stock, doped with antiseptic, colored with aniline, and artificially flavored, is added, the carbonated water is but contaminated with a mixture deleterious and unfit for any stomach.

An investigation of the better class of these fountains shows much adulteration that should not be permitted, or, if permitted, it should be rigidly restricted so that those who patronize them can in every instance know the character of the drink served.

Samples of a well-known brand of grape juice was analyzed, and a violation was reported to the county attorney. The manufacturers of this juice then immediately withdrew their stock, and substituted, at the same price, a grape juice containing no antiseptic. The antiseptic found was salicylic acid. Grape juice is used to a great extent in the sick room, and invalids especially should have such antiseptics regulated by a physician's prescription.

"Pepsinade," advertised to be an "aid to digestion," contained a large amount of salicylic acid, which has a strong inhibitory influence on ferments, and is recognized as the most antidigestive of the antiseptics.

Oleomargarine.

Number of samples analyzed	62
Number of samples found adulterated	62
Number of samples colored with aniline dyes in imitation of butter.....	54
Number of samples colored with annatto in imitation of butter	6
Number of samples colored, color not determined	2
Number of samples containing boracic acid	18

Number of samples bought as butter	19
Number of samples bought as oleomargarine	43
Number of samples bought as butter, labeled oleomargarine	17
Number of samples bought as butter, no label	2
Average price paid per pound when paid for as butter	\$0 21
Average price paid per pound when paid for as oleomargarine	18

All of the samples of oleomargarine purchased were sold in violation of law. Eighteen of these contained boracic acid, and there was no instance where the purchaser was made aware that the article contained this antiseptic.

Oleomargarine is a legitimate food product. It is made from the by-products of the slaughter pens, and from cottonseed oil. When these fats are fresh and clean, and the oleomargarine made free from antiseptics and coloring matter, it is a wholesome food. It is made from fats, which have their own merits, their own food value, and their own properties, and it should be sold upon its merits, reputation, and under its own name. It is commercially cheaper than butter, for the cost is very much less to produce it. It is regarded as inferior to butter, especially by the manufacturers who mix butter with it to make the better grades, and also color it in imitation of butter in order that the consumer will believe it to be butter. At present it is not one of the foods which has a trade reputation, and whose name is its best advertisement to the consumer; but like most of the other by-products remaining from the manufacture of the various well-known foods, the manufacturers of oleomargarine, wish it to imitate and share the reputation of a superior food product.

No other food product has been sold so deceitfully in the State as oleomargarine. It is our experience that oleomargarine depends for its sale upon the reputation of butter. It is colored in imitation of butter, and this coloring is made to assume the shades which butter produced in the different seasons, in different localities, from different breeds, and under different conditions presents; if any difference, the imitation is more beautiful, for the shades of aniline are more easily controlled than the feed of the cow or the fermentation of the cream. The manufacturers of oleomargarine adopt names longest in use, or which stand for the most trade reputation in the butter business. A factory is known as "The Columbus Butter Co.," another as "The Capital City Dairy Co.;" some advertisements read "churners of creamery butterine," or under the name of "Elgin" still more reputation is sought. Many adver-

tisements of oleomargarine have been noted which present a representation of a dairy maid, dairy cow, churn and spring house.

The present Federal law prevents fraud in the original sale of oleomargarine, but has no measure to protect the consumer from the dishonest dealer, steward, and boarding-house keeper. To protect the consumer and to compel the sale of oleomargarine upon its own merits, the State law prohibits the sale of oleomargarine when it is colored in imitation of butter. Thirty-two other States have enacted a similar law, and the act has been decided constitutional by State courts and by the Supreme Court of the United States.

The Supreme Court in the well-known Plumley case, passed upon the constitutional power of the States to thus regulate the sale of oleomargarine. Mr. Justice Harlan, in handing down the court's decision, made the following much-quoted statement:

"And yet it is supposed the owners of a compound which has been put in a condition to cheat the public into believing it is a particular article of food in daily use, and eagerly sought for by people in every condition of life are protected by the Constitution in making a sale of it against the will of the States in which it is offered for sale, because of the circumstance that it is an original package and had become a subject of ordinary traffic. We are unwilling to accept this view. We are of the opinion that it is within the power of the State to exclude from its markets any compound manufactured in another State, which has been artificially colored or adulterated so as to cause it to look like an article of food in general use, and the sale of which may by reason of such coloration or adulteration cheat the general public into purchasing that which they may not intend to buy."

Artificial Coloring.

Certain colors are associated with the different foods and their condition. Bolted flour, granulated sugar and starch are white. Fruits present different shades of color by means of which the ripeness of the respective fruit is judged; pears, peaches, and apples, grapes and berries present varying shades of red, purple and yellow. The richness of milk is sometimes judged by the yellow tinge from the globules of butter fat it contains. Fresh meats have a color distinct from that of spoiled meats. Vegetables, pickles, and

some others of a similar character are green, or they present their individual garden color.

In the market foods are selected largely by their color. At the table the eye aids the taste in pleasing the senses. Color, therefore, is an important factor in foods, and when the natural color is wanting, or condemns the article, the manufacturer supplies it artificially, or changes it to the color of a better article.

Pastry and confectionery are colored, and the uses of artificial coloring matters, that are harmless, seem legitimate under proper restrictions in this class of foods. Many foods have their colors changed in the process of preservation, and the manufacturers seek to restore the original by adding some artificial coloring matter, as is especially the case with fruit products. When green vegetables are canned, their colors are preserved or set with copper, zinc, lead or alum; thus the green of peas, beans and pickles is kept from changing to the unappetizing shades of deadness when they are canned.

Artificial coloring matters are employed to cover up deficiencies and to make the imitation appear like the real. Skimmed milk is colored in order that it may appear rich; spirit vinegar is colored in imitation of cider vinegar; the oleo fats are colored in imitation of butter fats, and artificial jellies are colored to the respective shades of the fruits they are labeled to have been made from.

When artificial coloring matter is used to such an extent, or of such a poisonous character that the purity of the food is sacrificed for appearance, such use should be prohibited. When color is used to cover up defects, inferiorities, or to imitate, its use is a fraud. In every case where the law does not prohibit coloring matter on account of its poisonous character or fraudulent intent, the law commands that its use shall be made known to the customer and consumer.

The artificial coloring matters found were mostly the aniline dyes, of which there are many forms. These dyes are made from coal tar products.

The Preservation of Foods.

The question of most importance in the manufacture and sale of foods is that of preservation, and this problem presents the most tempting field for adulteration to the otherwise honest food manufacturer and producer.

As soon as the spark of life leaves the animal, putrefaction begins; as soon as milk is exposed to a warm atmosphere it commences to sour, and when ripened grains or fruits become bruised or exposed to a moulding atmosphere decay sets up. The best established theory is, that the disorganization and decay of animal and vegetable tissues, and of milk and its products are due to the action of ferments, or of fermenting bacteria. The preservation of food products depends upon the suspension of these decomposing bacteria or the counteraction of their influence, and is accomplished in four general ways; cold storage and sterilization, ripening, and the preserving influences of salt, sugar, vinegar and smoke. Thus, ice in the refrigerator and cold storage systems causes a low temperature, which delays the decay of meat and souring of milk; meats, vegetables and fruit are sterilized, or heated to a degree hot enough to kill these organisms, and then canned; the fats and caseins of milk are ripened into butter and cheese; fruits are preserved with sugar; vegetables are pickled with vinegar and salt; hams and bacon are cured with salt and smoke. Very often two or more of these methods are employed to preserve a single article of food, and when combined with clean systems they are recognized as the healthful and ideal methods for preservation of food products. Salt and vinegar, besides being used to preserve the food, are relishes and stimulate the flow of the digestive juices; their taste makes them easily detected, and when not desired they can be declined.

These methods require skill and care to execute, proper sanitation and cleanliness in shipping and storage. Manufactured goods sometime remain on the shelf for years before all of the stock is sold. Foods are often produced in unclean surroundings and handled carelessly. Such reasons, with the tendency to imitate, and to put upon the market articles of food without regard to their quality, purity or food properties cause the use of antiseptics.

Antiseptics.

The antiseptics found in the foods were salicylic acid, benzoic acid, boracic acid, saccharin, and formaldehyde. These antiseptics act as a strong paralyzant to the ferments in foods, and their lasting embalming qualities make them the surest method for food preservation, and also the cheapest plan.

The more honest manufacturers make use of them in small amounts; others use them without regard to quantity. These antiseptics, varying in effect, have a deleterious influence upon the human system, and their harmful effect in large quantities is not honestly denied.

It is claimed by the manufacturers who make use of them, and also stated by some authorities, that the use of antiseptics in small quantities in foods is not harmful. However, they are always used in sufficient quantities to delay fermentation; and fermentation stopped by such means out of the stomach will, as the food still contains the antiseptic, be stopped in the stomach to a greater or less degree, making more work for the digestive juices and consequently retarding digestion. The quantity used is often too small to have a direct effect when absorbed into the system; but, put a little formaldehyde in the milk each day; add to this a little benzoic acid in the tomato catsup, a little salicylic acid in the canned fruits and vegetables, a little boracic acid in meats and oleomargarine, a little copper or zinc from the beautiful green of the pickles and peas, and the meal has deposited some poisonous material, which, with the repeated deposits of other meals, must and does have a harmful effect upon the stomach, nerves and health.

Some manufacturers compound and put these acids upon the market under the names of "preservaline," "freezine," "freezem," and similar labels, to be used by those who are ignorant of the antiseptics from which they are made, or the effect of such antiseptics upon the system. When labeled and sold under these names they are guaranteed to be "perfectly harmless" and to "keep all kinds of perishable food substances perfectly fresh and in a sound state, in any kind of weather and temperature for any length of time without the use of ice." The strong paralyzant power claimed for antiseptics is sufficient to condemn their use in foods, for a substance which can preserve perishable foods under any conditions, and for any length of time, will also affect the delicate digestive ferments of the stomach.

There is an overwhelming testimony from scientists that these antiseptics are, for various reasons and in different degrees, harmful when taken into the system. Even those who favor their use in small quantities agree that their use should be made known to the consumer. Recognized experiments show them to be anti-digestive and accumulative; that they are eliminated by the kidneys and that such elimination gives rise to various forms of kidney trouble; that some of them affect the higher nerve centers and depress the heart action.

Dr. J. Kister, of Berlin, has recently carried out some researches on the physiological effects of boracic acid. The ingestion of from 40 to 50 grains of boracic acid daily by strong and healthful subjects, gave rise in from four to ten days to albuminuria, which persisted concurrently with the administration of the drug. In further experiments 15 grains a day sufficed to produce vomiting and diarrhoea. The administration of 15 grain doses in a normal subject was followed within two hours by its appearance in the urine, complete elimination taking eight days. With half that dose excretion began at once, and lasted five days. The doctor considers that the daily ingestion of even small doses of boracic acid is apt to give rise to cumulative effects, which may ultimately determine toxic symptoms, and his experience tends to show that young persons are much more susceptible to the influence of the drug than is the case later in life.

Chief Chemist Wiley, of the U. S. Bureau of Chemistry, considers salicylic acid "very deleterious to health," and states, "There is no preservative which paralyzes the ferments which create decay that does not at the same time paralyze to the same extent the ferments that produce digestion." He also says, "The very fact that any substance preserves food from decay, shows that it is not fit to enter the stomach, especially if the stomach be delicate and the digestion feeble, and again he states, "I maintain that no food should ever be offered for sale which contains a preservative without that fact being plainly marked upon it."

Prof. E. H. Jenkins, of the Connecticut Agricultural Experiment Station, says, "These modern preservatives are used without any notice being given by the vendor that they are used," and when this notice is not given, "that opportunity and right of the individual to find out whether they will or will not injure him is taken away."

Dr. Albert B. Prescott, of the University of Michigan, states, "I

believe that in general preservatives and antiseptics in food are unfavorable to digestion and injurious to health."

Prof. Mitchell, of Wisconsin, states, "Any antiseptic which is an active antiseptic is necessarily deleterious to health. It stops the working of the normal enzymes or ferments, and it stops the digestive processes which take place in the organs, and it stops, in a measure the changes which take place normally in the food products, possibly, in some cases."

Whatever questions concerning the use of antiseptics in foods are unsettled, these are facts; they are a cumulative, harmful drug, and should be taken into the system only upon the prescription of a physician or upon the knowledge of the one who is eating the food that it contains an antiseptic; they supplant to some degree the cleanliness and care necessary to produce wholesome foods, cover up deficiencies and cause the use of many food articles of an unhealthy character; the use of the more harmful should be prohibited, the use of small quantities of those less harmful should be rigidly restricted and only permitted when the fact of their use is made known to the actual consumer.

Watching the various food products with regard to antiseptics alone is a large task, so extensively and recklessly are they used in the numberless articles of food on the market. Many food industries are built upon this principle of preserving foods entirely with antiseptics; it is a wrong principle and should be discouraged. The representatives of such food factories present many arguments and schemes to protect the profits which accrue from the substitution of a pinch of some antiseptic for the more costly methods of ice, sugar, cleanliness and care employed by the manufacturers of the best food articles. To cite a fact, axiomatic of all drugs, that the single instance of a mild antiseptic in minutest quantities has but very little effect in the system, does not defend the reckless use of antiseptics, a practice dangerous to the public's health.

Violations Reported.

Under section 5 of chapter 13, of the Acts of 1900, 174 violations have been reported to the prosecuting attorneys, as follows:

Covington	29
Elizabethtown	10
Frankfort	19
Lexington	12

Louisville	58
Nicholasville	12
Newport	11
Owensboro	18
Richmond	3
Versailles	2

On Wednesday, February 19, 1902, cases against Louisville merchants for making and selling spirit vinegar as apple vinegar; selling foods containing antiseptics and artificial coloring matter with no label stating these facts; selling baking powder with no label on the package or can showing the kind of acid salt used, and for selling oleomargarine colored in imitation of butter, were called for trial.

The first case was that for selling a Chili sauce which contained benzoate of soda and an aniline color, but which had no label on the bottle stating these facts. The defense pleaded "not guilty" and the prosecution proceeded with the trial, producing testimony that the defendant did have in possession for sale, exposed for sale and sold on the date mentioned in the indictment; that there was an antiseptic in the food and also an artificial coloring matter, and that the article of food in question did not have a label stating these facts. To questions from the defense the witnesses for the Commonwealth gave testimony as to the injurious effects of antiseptics.

Defendant went upon the stand and admitted selling the article of food, and that there was no label on the bottle stating that it contained an antiseptic or artificial coloring matter. He stated that he had no knowledge that the article was adulterated and that he had stopped the sale of the Chili sauce as soon as he found that it was adulterated. Witnesses for the defense were put on the stand to prove that antiseptics were absolutely necessary to preserve tomato catsups and sauces, and that such antiseptics and coloring matter as were found in the bottle of Chili sauce were not injurious to the human system. One of the leading vinegar manufacturers took the stand in the defendant's behalf and gave testimony of this character, who, on being cross-examined by the prosecution stated that aniline color was made from burnt sugar, and that benzoate of soda was just ordinary cooking soda used every day in bread making. The defense then rested their case and it went to the jury for trial.

The instructions of the learned judge cover well the points in the testimony and emphasize strongly the fact that the public

must be protected by holding a dealer responsible for what he sells as food for human consumption. The jury returned a verdict of "guilty"; but since the defendant had stated that he would not sell any more of the unlabeled food, the fine was made one dollar and costs.

On the following morning the other cases were called for trial. After consultation with the attorney for the food department the defendants agreed to plead guilty, pay a fine of five dollars and costs each, and promise not to violate the food law further.

JEFFERSON CIRCUIT COURT.

Criminal Division.

Commonwealth of Kentucky

Plaintiff.

vs.

INSTRUCTIONS.

Defendant.

No. 1. If the jury believe, from all the evidence in this case, to the exclusion of every reasonable doubt, that in this county and within 12 months next before the finding of this indictment, the accused, _____, did sell to one, _____ a bottle of Chili sauce, which was then and there an article of food for human consumption, and which contained an antiseptic or an artificial coloring matter, or both, but which said bottle did not have a label showing that said Chili sauce contained said antiseptic matter or said artificial coloring matter, or either or both, and at the time of the sale, if there was one, the said _____ did not disclose to or inform the said purchaser that said bottle of Chili sauce contained said antiseptic or said artificial coloring matter, then they should find him guilty as charged in the indictment, and fix his punishment by a fine not to exceed one hundred dollars, or by fine and imprisonment in the county jail for not more than fifty days, or they may both so fine and imprison him in their discretion.

No. 2. The jury are instructed that it is immaterial whether or not the defendant, _____, at the time of the sale mentioned in instruction No. 1, knew whether said bottle of Chili sauce was adulterated as set forth in said instruction No. 1, but they may consider the evidence on that question in mitigation of punishment, if any; and they are further instructed that it is

immaterial whether the ingredient used in adulterating said Chili sauce, if it was so adulterated, was or was not injurious to the human system.

No. 3. The law presumes the innocence of the accused, and it is the duty of the jury, if they can reasonably do so, to reconcile and harmonize all of the facts and circumstances of the case with that presumption; and if upon the whole case the jury entertain a reasonable doubt of the guilt of the accused, or of any material fact necessary to constitute his guilt of the offense charged in the indictment having been proven, they should find him not guilty.

HENRY S. BARKER, Judge.

Compiled Report.

Following are the results of the analyses, together with a compiled report from the Inspector's data. Those samples containing adulterations are placed under the head of "Found Adulterated." Samples in which no adulterant was found and which were labeled according to law, are under the head of "Not found Adulterated." Attention is called to the fact that under the "Not Found Adulterated" column are samples which were found to contain artificial coloring matter or antiseptics, but were so labeled, and so were reported as "Not Found Adulterated."

The attention of the dealers and manufacturers is called to the fact that the labeling is not satisfactory, because in many instances the label is in such small type, so obscurely placed or in such misleading terms as to evade in part the purpose of the law. Such labeling hides the true character of the goods from the consumer, and it must be replaced by a more honest system of labeling.

BAKING POWDERS—Found Adulterated

Station No.	Name taken from Label.	Where Obtained.	Date of Collection.	From Whom Obtained.
8011	Koenig	Covington	May 14, 1901	N. L. Young
6313	Clover	Lexington	Dec. 6, 1899	J. B. Rogers & Co.
6314	White Cap	Lexington	Dec. 6, 1899	Warren Bros.
6315	Eatwell	Lexington	Dec. 8, 1899	Vogt & Foley
6316	Quaker	Lexington	Dec. 13, 1899	T. L. Campbell
7210	Queen Flake	Elizabethtown	Dec. 19, 1900	Bruner & Duell
7212	Queen Flake	Elizabethtown	Dec. 19, 1900	Davis & Williams
7214	R. T. Royal	Elizabethtown	Dec. 19, 1900	J. B. Walker
7607	Kenton	Versailles	Jan. 18, 1901	Langdon Creasey Co.
7609	R. T. Royal	Richmond	Feb. 2, 1901	E. Deatherage & Co.
7834	Col. Gildeas	Elizabethtown	March 7, 1901	T. J. Neafus
7835	Royal	Elizabethtown	March 7, 1901	T. J. Neafus
7837	Red Star	Elizabethtown	March 7, 1901	Reed & Bro.
7951	Kenton	Covington	May 13, 1901	R. Hamilton Grocery Co.
7952	Crown	Covington	May 13, 1901	R. Hamilton Grocery Co.
7967	White Cap	Covington	May 13, 1901	J. L. Hilker
7968	Red Star	Covington	May 13, 1901	J. L. Hilker
7990	Pride of Covington ..	Covington	May 14, 1901	W. R. Miller
8024	Campbell's	Covington	May 14, 1901	J. G. Herman
8026	Snow Drift	Newport	May 15, 1901	David Brunk
8419	American Beauty	Louisville	July 30, 1901	Wolff & Sons
8422	American Beauty	Louisville	July 30, 1901	Ed L. Meyer
8535	Good Luck	Frankfort	Aug. 23, 1901	Howard & Noonan
8543	Good Luck	Frankfort	Aug. 23, 1901	Jas. O'Donnell
8544	Faultless	Frankfort	Aug. 23, 1901	A. H. Wagner
8557	R. T. Royal	Frankfort	Aug. 24, 1901	George Salender
8559	Good Luck	Frankfort	Aug. 24, 1901	H. L. Tobbin
8560	Royal	Frankfort	Aug. 24, 1901	W. J. Scotto
8652	Clabber	Louisville	Sept. 24, 1901	F. G. Wernert
8653	Clabber	Louisville	Sept. 24, 1901	S. Goldsmith
8700	American Beauty	Louisville	Oct. 10, 1901	Wolff & Sons
8706	Water Lily	Louisville	Oct. 10, 1901	Wolff & Sons
8726	Mascot	Nicholasville	Oct. 14, 1901	H. Frye
8732	Sky	Nicholasville	Oct. 14, 1901	H. H. Lowry
8733	Pure Food	Nicholasville	Oct. 14, 1901	H. H. Lowry
8097	Our Leader	Owensboro	May 13, 1901	E. F. Sturgeon

BAKING POWDERS—Not Found Adulterated

Station No.	Name taken from Label.	Where Obtained.	Date of Collection.	From Whom Obtained.
6317	Richelieu	Lexington	Dec. 13, 1899	Campbell Tea & Coffee Co.
7144	Bon Bon	Lexington	Dec. 12, 1900	Pearson & Clarke
7145	Rabbit's Foot	Lexington	Dec. 12, 1900	Pearson & Clarke
7956	Pure Cream Tartar ..	Covington	May 13, 1901	Geo. C. Goode
8099	Royal	Owensboro	May 14, 1901	H. W. Meek

or Without Label Showing Kind of Acid Salt Used.

Manufacturer.	Acid Salt Found.	Remarks.
Henry Koenig Co.	Alum, Phosphate	30 per cent. soapstone filler.
Clover Chemical Co., N. Y.	Alum	Without label.
Herkin Spice Co., Cin., O.	Alum, Phosphate	Without label.
J. Lankala Co., Chat., Tenn.	Alum, Phosphate	Without label.
Quaker Co., Chicago, Ill.	Alum, Phosphate	Without label.
Northorp, Robertson & Carrier .	Alum, Phosphate	Without label.
Northorp, Robertson & Carrier	Alum, Phosphate	Without label.
R. T. Royal, Louisville, Ky.	Phosphate	Labeled, Cream Tartar.
Kenton Co., Cincinnati, O.	Phosphate	Without label.
R. T. Royal, Louisville, Ky.	Phosphate	Labeled, Cream Tartar.
Boston Baking Powder Co.	Alum	Without label.
Royal Baking Powder Co.	Cream Tartar	Without label.
Ouerbacker, Gilmore Co.	Alum, Phosphate	Without label.
Kenton Co.	Alum, Phosphate	Without label.
Kenton Co.	Alum, Phosphate	Without label.
Jas. Heekin & Co.	Alum, Phosphate	Without label.
G. B. Murphy	Alum, Phosphate	Without label.
Wabash Baking Powder Co.	Alum	Without label.
Potter Parlan & Co.	Alum, Phosphate	Without label.
H. R. Droste & Co.	Cream Tartar	Without label.
Ed L. Meyer & Co.	Alum	Without label.
Ed L. Meyer & Co.	Alum	Without label.
Southern Mfg. Co.	Alum	Without label.
Southern Mfg. Co.	Alum	Without label.
R. T. Royal	Alum, Phosphate	Without label.
Southern Mfg. Co.	Phosphate	Labeled Cream Tartar.
Southern Mfg. Co.	Alum	Without label.
Royal Baking Powder Co.	Cream Tartar	Without label.
Hulman Coffee Co.	Alum, Phosphate	Without label.
Hulman Coffee Co.	Alum, Phosphate	Without label.
Ed L. Meyer	Alum	Without label.
Wolff & Sons	Alum	Without label.
C. T. Ware Coffee Co.	Alum, Phosphate	Without label.
Sky Baking Powder Co.	Alum, Phosphate	Without label.
Fred Parker	Alum, Phosphate	Without label.
E. W. Gillett	Alum	Without label.

And With Labels Showing Kind of Acid Salt Used.

Manufacturer.	Acid Salt Found.	Remarks.
Sprague, Warner & Co.	Cream Tartar	
J. C. Grant Chemical Co.	Alum	Obscurely labeled, Alum.
J. C. Grant Chemical Co.	Alum	Obscurely labeled, Alum.
Cin. Wholesale Grocery Co.	Cream Tartar	
Royal Baking Powder Co.	Cream Tartar	

BUTTER—Not Found Adulterated.

Station No.	Make or Brand.	Where Obtained.	Date of Collection.
6117	Country	Lexington	Dec. 13, 1899
6119	Country	Lexington	Dec. 13, 1899
6120	Country	Lexington	Dec. 13, 1899
6121	Country	Lexington	Dec. 13, 1899
6134	Country	Maysville	Dec. 15, 1899
6135	Country	Maysville	Dec. 15, 1899
6137	Country	Maysville	Dec. 15, 1899
6138	Country	Maysville	Dec. 15, 1899
6136	Country	Maysville	Dec. 15, 1899
6426	Country	Versailles	Feb. 28, 1900
6427	Country	Versailles	Feb. 28, 1900
6751	Home made	Louisville	April 12, 1900
6752	Creamery	Louisville	April 12, 1900
6753	Creamery	Louisville	April 12, 1900
6754	Creamery	Louisville	April 12, 1900
6755	Creamery	Louisville	April 12, 1900
6756	Creamery	Louisville	April 12, 1900
6757	Creamery	Louisville	April 12, 1900
6758	Own make	Louisville	April 12, 1900
6759	Creamery	Louisville	April 12, 1900
6760	Creamery	Louisville	April 12, 1900
6761	Creamery	Louisville	April 17, 1900
6762	Creamery	Louisville	April 17, 1900
6763	Country	Louisville	April 17, 1900
6764	Country	Louisville	April 17, 1900
6765	Country	Louisville	April 17, 1900
6767	Country	Louisville	April 17, 1900
6766	Country	Louisville	April 17, 1900
6768	Country	Louisville	April 17, 1900
6769	Country	Louisville	May 16, 1900
6770	Country	Louisville	May 16, 1900
6771	Country	Louisville	May 16, 1900
6772	Country	Louisville	May 16, 1900
6773	Country	Louisville	May 16, 1900
6774	Country	Louisville	May 16, 1900
6775	Country	Louisville	May 16, 1900
6776	Country	Louisville	May 16, 1900
6777	Own make	Louisville	May 16, 1900
6778	Country	Louisville	May 16, 1900
6779	Own make	Louisville	May 16, 1900
6781	Country	Louisville	May 21, 1900
6782	Country	Louisville	May 21, 1900
6783	Country	Louisville	May 21, 1900
6784	Dairy	Louisville	May 21, 1900
6785	Creamery	Louisville	May 21, 1900
6786	Creamery	Louisville	May 21, 1900
6787	Country	Louisville	May 21, 1900
6788	Country	Louisville	May 21, 1900
6790	Own make	Louisville	May 21, 1900
6792	Country	Louisville	May 24, 1900
6793	Country	Louisville	May 24, 1900
6795	Country	Louisville	May 24, 1900
6797	Country	Louisville	May 24, 1900
6798	Country	Louisville	May 24, 1900
6799	Country	Louisville	May 24, 1900
6800	Country	Louisville	May 24, 1900
7030	Creamery	Lexington	Oct. 8, 1900
7031	Creamery	Lexington	Oct. 8, 1900
7032	Creamery	Lexington	Oct. 8, 1900
7923	Creamery	Owensboro	May 7, 1901
7924	Country	Owensboro	May 7, 1901
7926	Country	Owensboro	May 7, 1901
7928	Country	Owensboro	May 7, 1901
7930	Creamery	Owensboro	May 8, 1901
7931	Creamery	Owensboro	May 8, 1901
7933	Creamery	Owensboro	May 8, 1901
7959	Creamery	Covington	May 13, 1901

BUTTER—Not Found Adulterated.

From Whom Obtained.	Retail Price per pound.	Analytical Data.		
		Reichert, M.	Valenta Test Degrees C.	Color.
T. L. Campbell	25	.....	40.0	Natural.
Scully & Gorman	30	.....	47.0	Natural.
J. M. Crawford	25	.....	49.0	Slight tr. art.
J. M. Crawford	25	.....	39.0	Slight tr. art.
J. C. Cablish	20	.....	54.0	Natural.
J. C. Cablish	20	.....	45.0	Natural.
Ed. Richardson	20	.....	50.0	Natural.
G. W. Geisel	20	.....	46.0	Natural.
C. C. Calhoun	20	.....	48.0	Natural.
Theo. Kessler	20	.....	38.0	Natural.
Theo. Kessler	20	26.8	52.0	Natural.
C. Bodenbender	25	21.3	55.5	Azo dye.
Weikel & Schuh	25	28.8	39.5	Azo dye.
F. Klusmeier	25	28.1	37.0	Azo dye.
Imorde & Bro.	30	29.9	41.0	Azo dye.
Wm. Scharf, Jr.	25	28.6	37.5	Azo dye.
A. Marcus	30	28.6	36.5	Azo dye.
Bode Bros	25	29.1	32.0	Azo dye.
J. M. Schoenbacher	30	26.9	41.0	Azo dye.
D. Montz	20	26.2	41.0	Azo dye.
Jno. Bohlson & Sons	20	28.8	31.5	Azo dye.
George Black	30	28.5	36.5	Azo dye.
Max Levi	30	26.8	40.0	Azo dye.
A. Button	25	27.3	45.0	Natural.
Jno. Keifer	20	28.8	28.0	Natural.
A. J. Dreisel	20	30.4	35.0	Natural.
Wm. Cummings	20	25.5	40.0	Natural.
J. L. Block	20	29.1	35.0	Natural.
Weaver Bros.	25	27.7	34.5	Natural.
N. Neal	20	30.7	42.0	Natural.
C. Oldiges	20	25.4	35.5	Natural.
Ross & McCall	20	28.0	35.5	Natural.
Long & Collins	25	26.8	36.7	Azo dye.
F. Doll Gro. Co.	20	30.7	34.0	Natural.
Watkins & McCandlers	20	28.2	38.5	Natural.
Mrs. Burke	25	28.2	33.5	Natural.
Jno. Heins	20	27.8	30.0	Natural.
F. M. Derkins	25	26.4	33.0	Natural.
G. J. Churchman	25	29.5	32.0	Natural.
Ky. Dairyman's Exchange ..	25	29.9	34.5	Natural.
L. M. Reid	20	29.8	27.0	Natural.
W. A. Call	20	27.2	35.0	Natural.
Fred Brinke	20	30.7	42.0	Natural.
Moses & Nichols	20	29.8	32.0	Natural.
Gt. Atlantic & Pac. Tea Co.	21	28.2	37.0	Natural.
Zapp & Co.	25	29.9	39.5	Azo dye.
A. Button & Sons	20	26.3	44.0	Natural.
L. S. Clemmons	20	26.5	36.0	Natural.
N. L. Ragland & Son	20	26.2	41.5	Natural.
H. Deddins	20	30.9	33.0	Natural.
W. F. Linton	20	27.2	28.0	Natural.
R. L. Price	20	28.1	38.0	Natural.
Jno. Ross	20	26.3	21.0	Natural.
F. Hohmann	20	27.5	38.0	Natural.
R. J. Woertz	20	29.1	31.0	Natural.
August A. Faust	20	29.7	33.0	Natural.
Jno. Hutchison	30	29.7	39.0	Artificial.
A. E. Shields	30	25.3	43.0	Artificial.
Armour & Co. ....	.....	28.1	47.0	Artificial.
Dougherty & Berry	25	28.7	40.0	Natural.
R. B. Pottinger	20	28.2	25.0	Natural.
L. A. Nunn	25	29.9	38.0	Natural.
Thos. Steele	25	30.0	26.0	Natural.
Dawson & Yager	25	26.7	35.0	Natural.
W. F. Reinhardt	30	28.7	38.0	Natural.
Geo. Poehlin	25	26.8	34.0	Natural.
G. H. Voss	15	28.4	38.0	Aniline color.

BUTTER--Not Found Adulterated.--Continued.

Station No.	Make or Brand.	Where Obtained.	Date of Collection.
7963	Creamery	Covington	May 13, 1901.....
7974	Creamery	Covington	May 14, 1901.....
7977	Creamery	Covington	May 14, 1901.....
7978	Creamery	Covington	May 14, 1901.....
7984	Country	Covington	May 14, 1901.....
7985	Creamery	Covington	May 14, 1901.....
7989	Creamery	Covington	May 14, 1901.....
8000	Creamery	Covington	May 14, 1901.....
8002	Creamery	Covington	May 14, 1901.....
8005	Clover Creamery	Covington	May 14, 1901.....
8008	Creamery	Covington	May 14, 1901.....
8009	Country	Covington	May 14, 1901.....
8010	Country	Covington	May 14, 1901.....
8017	Creamery	Covington	May 14, 1901.....
8020	Country	Covington	May 14, 1901.....
8022	Creamery	Newport	May 14, 1901.....
8023	Country	Newport	May 14, 1901.....
8025	Creamery	Newport	May 15, 1901.....
8027	Creamery	Newport	May 15, 1901.....
8031	Creamery	Newport	May 15, 1901.....
8038	Country	Newport	May 15, 1901.....
8039	Creamery	Newport	May 15, 1901.....
8040	Country	Newport	May 15, 1901.....
8093	Country	Owensboro	May 13, 1901.....
8094	Country	Owensboro	May 13, 1901.....
8098	Country	Owensboro	May 14, 1901.....
8108	Country	Owensboro	May 15, 1901.....
8109	Country	Owensboro	May 15, 1901.....
8441	Country	Louisville	Aug. 3, 1901.....
8789	Creamery	Lexington	Oct. 29, 1901.....
7927	Country	Owensboro	May 7, 1901.....
7929	Creamery	Owensboro	May 7, 1901.....
7954	Creamery	Covington	May 13, 1901.....
8101	Country	Owensboro	May 14, 1901.....
8102	Country	Owensboro	May 14, 1901.....
8103	Creamery	Owensboro	May 14, 1901.....
8104	Country	Owensboro	May 14, 1901.....
8714	Creamery	Louisville	Oct. 10, 1901.....
*9066	Creamery	Lexington	Dec. 20, 1901.....

*Sent for information.

BUTTER—Not found Adulterated.—Continued.

From Whom Obtained.	Retail Price per pound.	Analytical Data.		
		Reichert, M.	Valenta Test Degrees C.	Color.
J. J. Schular	25	27.5	42.0	Aniline color.
E. J. Goebel	25	26.6	41.0	Aniline color.
I. H. Steppenfield	26	27.9	41.0	Aniline color.
I. H. Steppenfield	26	29.4	40.0	Azo dye.
M. Niehaus	25	31.0	33.0	Natural.
M. Niehaus	14	29.0	43.0	Azo dye.
W. R. Miller	25	29.5	36.0	Azo dye.
G. T. Ellison	25	28.9	40.0	Natural.
Jno. Dalheim	25	27.2	40.0	Aniline.
Jno. Evans	20	29.7	40.0	Aniline color.
Omeara Bros.	25	29.4	42.0	Aniline color.
Siffen Bros.	22	30.0	36.0	Natural.
N. L. Young	30	28.0	38.0	Natural.
G. H. Voss	23	29.3	37.0	Azo dye.
H. Voss, Myer & Bro.	20	29.0	34.0	
J. G. Herman	30	30.0	31.0	Azo dye.
J. G. Herman	20	33.3	33.0	Azo dye.
David Brunk	26	29.9	39.0	Azo dye.
Ed Quinn	24	30.0	41.0	Azo dye.
Otto Deppenbrock	30	30.1	35.0	Azo dye.
Frank Fecker	16	27.0	37.0	Azo dye.
T. W. Wilson	25	29.7	37.0	
T. W. Wilson	20	33.0	31.0	
J. J. Gavin, Jr.	25	31.1	32.0	
Ed Francke & Son	25	30.8	34.0	
H. W. Meek	25	26.4	45.0	
J. R. Lancaster	25	27.9	37.0	
R. H. O'Flaherty	25	28.3	38.0	
E. B. Swift	20	27.2	35.0	Natural.
Vogt & Foley	25	.....	42.0	
C. E. Fournier	25	31.6	30.0	
Frank Meier & Bro.	25	29.0	40.0	Azo dye.
R. Hamilton Grocery Co.	25	27.6	43.0	Azo dye.
G. O. May	25	24.5	44.0	
Linegar & Linegar	25	26.5	49.0	
J. W. Reinhardt	25	26.9	27.0	
J. W. Reinhardt	20	27.5	28.0	
Great A. & P. Tea Co.	24	31.9	43.0	Aniline.
Foster Butner .....	.....	.....	32.0	No antisept.

BUTTER—Found Adulterated.

Station No.	Name of Brand or Make.	Where Obtained.	Date of Collection.	From Whom Obtained.
6886	Fresh Butter	Ky. D'ryman's Ex. Louisville	Aug. 28, 1900.....	J. Rule, Goshen, sent sample.
8788	Dairy Butter	Lexington	Oct. 28, 1901	Mrs. Ella Chinn sent sample..
8791	Creamery Butter	Lexington	Nov. 1, 1901.....	Wm. Lyons
8793	Creamery Butter	Lexington	Nov. 2, 1901.....	J. M. Moberly
6789	Creamery Butter	Louisville		Blue Grass Gro. Co. J. W. Pittinger

CANNED GOODS.

Station No.	Where Obtained.	From Whom Obtained,	Date of Collection.	Price Paid.	Manufacturer.
8697	Louisville	M. Wolff & Sons .	Oct. 10, 1901	10	Gibbs Preserving Co.
8699	Louisville	M. Wolff & Sons .	Oct. 10, 1901	10	Morgan & Clarke
8704	Louisville	M. Wolff & Sons .	Oct. 10, 1901	15	.....
8712	Louisville	M. Wolff & Sons .	Oct. 10, 1901	15	J. T. Schroth
8713	Louisville	M. Wolff & Sons .	Oct. 10, 1901	10	Circleville Canning Co.
8720	Nicholasville	J. R. Miller	Oct. 14, 1901	10	Peckaway Canning Co.
8725	Nicholasville	R. L. Goucher ...	Oct. 14, 1901	10	J. L. Hayner & Co.
8728	Nicholasville	H. Higgs & Son .	Oct. 14, 1901	10	Cobb Preserving Co.
8730	Nicholasville	D. S. Waide	Oct. 14, 1901	15	Thos. J. Myers & Co.
8736	Nicholasville	Robt. Hare	Oct. 14, 1901	10	New London Canning Co. ...
8729	Nicholasville	D. S. Waide	Oct. 14, 1901	10	Hageman & Harting
7972	Covington	E. J. Goebel	May 14, 1901	13	Martin Wagner Co.

BUTTER—Found Adulterated.

Retail Price Per Lb.	Analytical Data.					REMARKS.
	Reichert, M.	Valenta Test Degree C.	Fat Per Cent.	Water Per Cent.	Color.	
25	21.7	59.0	.....	.....	Artific'l	20% Oleomargarine
25	.....	48.0	.....	49.37	Artific'l	Process Butter
25	.....	47.0	49.49	44.30		Process Butter Salt, 3.9%, Casein, 2.31%.
25	.....	44.0	46.88	46.07		Process Butter ... Salt, 4.62%, Casein, 2.43%.
25	19.4	51.0	.....	.....	Natural	Oleomargarine, 25%

CANNED GOODS.

Brand.	Antiseptic.	REMARKS.
Choice Cove Oysters	None found.	Not found adulterated.
Early June Peas	No Salicylic or Boric Acid....	Not found adulterated.
French Peas	No Salicylic Acid	Not found adulterated—no copper.
Frankfurt Sausage	No Boric Acid	Not found adulterated.
Early Valentine String Beans	No Salicylic	Not found adulterated.
Sugar Corn	No Salicylic	Not found adulterated.
Sugar Corn	No Salicylic	Not found adulterated.
Sugar Corn	No Salicylic	Not found adulterated.
Grated Pine Apple	No Salicylic	Not found adulterated.
Purity Sugar Corn	No Salicylic	Not found adulterated.
Warren's Sugar Corn	No Salicylic	Not found adulterated.
Ex. Des. Grated Pine Apple..	No Salicylic or Benzoic Acid..	Polariz'on Dir. + 0.4, Invert—4.3 T. 26°C

FEEDING STUFFS—Not Found Adulterated.

Station No.	Name.	Date of Collection.	Where Obtained.	From Whom Obtained.
7120	Bran	Nov. 30, 1900.....	Louisville	Callahan & Sons
7121	Bran	Nov. 30, 1900.....	Louisville	Callahan & Sons
7123	Bran	Nov. 30, 1900.....	Louisville	Oscar Farmer & Son
7124	Bran	Nov. 30, 1900.....	Louisville	Geo. Becker & Co.

FEEDING STUFFS—Found Adulterated.

Station No.	Name.	Date of Collection.	Where Obtained.	From Whom Obtained.
7122	Mixed Feed	Nov. 30, 1901.....	Louisville	A. C. Schuff

PEPPER, SPICES, ETC.—Not Found Adulterated.

7996 Black pepper, bought of B. H. Kroger, Covington Ky., May 14, 1901, Contains too little pepper starch and too much pepper hull. Probably not adulterated with anything foreign in pepper berry.

FEEDING STUFFS—Not Found Adulterated,

Manufacturer.	Protein Per Cent.	Foreign Material.	REMARKS.
J. D. Guthrie & Sons	15.75	Some Fragments of Gr. Cobs.	
J. D. Guthrie & Sons	17.21	.....	Very clean sample.
	16.37	Fragments of Cockle	
Ky. Milling Co.	16.62	Fragments of Cockle	

FEEDING STUFFS—Found Adulterated,

Manufacturer.	Protein Per Cent.	Foreign Material.	REMARKS.
Ky. Milling Co.	14.12	Ground Corn Cobs	

PEPPER—Found Adulterated.

- 8710 Ground black pepper, bought of Wolf & Sons, Louisville, October 10, 1901. Contains some foreign starch.
- 8715 Ground black pepper, Great A. & P. Tea Co., Louisville, October 10, 1901. Contains foreign starch.

JELLIES, PRESERVES, ETC.—Not Found Adulterated.

Station No.	Name or Brand on Label, or Stated.	Where Obtained.	Date of Collection.	Price Paid.	From Whom Obtained.
7964	Pure White C. Honey	Covington	May 13, 1901	10	J. L. Hilker
7971	Jello	Covington	May 14, 1901	10	E. J. Goebel
7973	Pure Honey	Covington	May 14, 1901	20	E. J. Goebel
7979	Strawberry Pomona	Covington	May 14, 1901	10	I. H. Seppenfield
7980	Pure Honey	Covington	May 14, 1901	13	I. H. Seppenfield
8106	Damson Preserves	Owensboro	May 15, 1901	50	R. B. Pottinger
8783	Wild Plum Jelly	Lexington	Oct. 25, 1901	.....	Mrs. T. H. Clay
8785	Green Gage Jam	Lexington	Oct. 25, 1901	.....	Mrs. T. H. Clay
8787	Gooseberry Jam	Lexington	Oct. 25, 1901	.....	Mrs. T. H. Clay
8107	Raspberry Jam	Owensboro	May 17, 1901	20	R. B. Pottinger
8003	Currant Jelly	Covington	May 14, 1901	10	Jno. Dalheim

JELLIES, PRESERVES, ETC.—Found Adulterated.

Station No.	Name or Brand on Label, or Stated.	Price Paid.	Where Obtained.	From Whom Obtained.	Date of Collection.
7213	Raspberry Jelly	.....	Elizabethtown	Davis & Williams..	Dec. 19, 1900.....
7215	Apricot Jam	.....	Elizabethtown	G. Watkins	Dec. 19, 1900.....
7611	Apple Butter	10	Richmond	Higgins & Ellis	Feb. 2, 1901.....
7953	Raspberry Jam	10	Covington	R. Hamilton Gro.	May 13, 1901.....
8014	Currant Jelly, Acme..	10	Covington	Geo. Reedy	May 14, 1901.....
8016	Crab Apple Jelly	10	Covington	Geo. Reedy	May 14, 1901.....
8650	Red Raspberry Pres..	25	Louisville	Wm. Cummings	Sept. 26, 1901.....

JELLIES, PRESERVES, ETC.—Not Found Adulterated.

Manufacturer or Producer.	Analytical Data.		Temp.	Sugar Per Cent.	
	Polarization Direct.	Polarization Invert.			
F. W. Muth & Co.	-13.3	+15.5	31.	1.97	Glucose 26 per cent. so labeled.
Genisee Pure Food Co.	+29.	-22.0	31.	79.2	
C. H. Webber	- 3.5	-10.5	31.	1.5	
P. J. Riller	+44.	+39.2	26.	7.3	
C. H. Webber	-10.0	-12.0	31.	1.5	
	+12.4	- 7.1	31.	30.2	
Mrs. T. H. Clay	+ 6.0	-10.7	21.	....
Mrs. T. H. Clay	- 1.2	- 9.6	21.	....
Mrs. T. H. Clay	- 4.4	- 9.7	21.	....
Goodwin Pres. Co.	+23.7	-17.8	31.	66.2	
Cruikshank Bros. & Co.	+19.7	- 9.8	26.	44.8	No Salicylic or Benzoic.

JELLIES, PRESERVES, ETC.—Found Adulterated.

Manufacturer or Wholesaler.	Analytical Data.				REMARKS.
	Polarization Direct.	Polarization Invert.	Sugar Per Cent.	Color.	
Louisville Preserving Co.	-127.2	+125.6	.....	.....	Glucose.
Idea Preserving Co.	+119.0	+107.0	.....	.....	Glucose.
Exley, Watkins & Co.	+ 38.0	+ 37.0	.....	.....	Glucose 25 per cent.
Austin, Nichols & Co.	+ 31.3	+ 20.4	16.6	.....	Glucose 18 per cent.
.....	+ 9.1	+ 5.5	5.5	.....	Glucose 5 per cent.
Flaccus Bros.	+ 36.2	+ 33.5	4.1	.....	Glucose 20 per cent.
Lutz & Schramm	+ 4.6	- 4.2	8.8	Aniline....	

MILK—Not Found Adulterated.

Station No.	Where Obtained.	Date of Collection.	Seller or Producer.
6651	Louisville	April 10, 1900	A. J. Phillips
6652	Louisville	April 10, 1900	F. Schurch
6653	Louisville	April 10, 1900	Gauman Bros.
6655	Louisville	April 10, 1900	Frank & Keller
6656	Louisville	April 10, 1900	F. Lacker
6660	Louisville	April 10, 1900	George Laible
6661	Louisville	April 11, 1900	H. E. Lewman
6663	Louisville	April 11, 1900	H. E. Lewman
6665	Louisville	April 11, 1900	H. E. Lewman
6667	Louisville	April 11, 1900	H. E. Lewman
6668	Louisville	April 11, 1900	H. E. Lewman
6670	Louisville	April 11, 1900	H. E. Lewman
6671	Louisville	April 13, 1900	Mrs. D. Kluer
6672	Louisville	April 13, 1900	J. G. Strohmiers
6673	Louisville	April 13, 1900	Ky. Dairyman's Exchange
6674	Louisville	April 13, 1900	F. Bauer & Sons
6675	Louisville	April 13, 1900	Ky. Dairyman's Exchange
6676	Louisville	April 13, 1900	Ky. Dairyman's Exchange
6678	Louisville	April 13, 1900	Ky. Dairyman's Exchange
6679	Louisville	April 13, 1900	Ky. Dairyman's Exchange
6681	Louisville	April 14, 1900	J. Peiper
6682	Louisville	April 14, 1900	Andy Kaelin
6683	Louisville	April 14, 1900	E. W. Sewell
6684	Louisville	April 14, 1900	U. L. Ragland
6685	Louisville	April 14, 1900	D. H. Ewing & Son
6686	Louisville	April 14, 1900	J. Thies
6687	Louisville	April 14, 1900	H. E. Lewman
6688	Louisville	April 14, 1900	H. E. Lewman
6689	Louisville	April 14, 1900	H. E. Lewman
6690	Louisville	April 14, 1900	H. E. Lewman
6691	Louisville	April 16, 1900	J. C. Straub
6692	Louisville	April 16, 1900	F. W. Meihoff
6693	Louisville	April 16, 1900	Jas. Kaelin
6694	Louisville	April 16, 1900	W. & H. Wetterau
6695	Louisville	April 16, 1900	B. Greive
6696	Louisville	April 16, 1900	M. Bisig
6697	Louisville	April 16, 1900	D. H. Ewing & Sons
6698	Louisville	April 16, 1900	D. H. Ewing & Sons
6699	Louisville	April 16, 1900	D. H. Ewing & Sons
6700	Louisville	April 16, 1900	D. H. Ewing & Sons
6701	Louisville	April 19, 1900	Simon & Goldstein
6702	Louisville	April 19, 1900	B. Fischner
6703	Louisville	April 19, 1900	H. Harlammert
6704	Louisville	April 19, 1900	K. Kaelin
6709	Louisville	April 19, 1900	Fred Meyer
6710	Louisville	April 19, 1900	Fred Meyer
6711	Louisville	April 20, 1900	B. Bodeman
6712	Louisville	April 20, 1900	Wm. Onill
6713	Louisville	April 20, 1900	H. Friecks
6714	Louisville	April 20, 1900	Jno. Stockenborg
6715	Louisville	April 20, 1900	J. D. Broderic
6716	Louisville	April 20, 1900	L. Leibert
6717	Louisville	April 20, 1900	Weaver Bros.
6718	Louisville	April 20, 1900	Jas. Reinert
6719	Louisville	April 20, 1900	W. P. Grigsby
6721	Louisville	April 27, 1900	Long & Collins
6722	Louisville	April 27, 1900	W. C. Cope
6723	Louisville	April 27, 1900	S. J. McCaddle
6724	Louisville	April 27, 1900	Geo. H. Young
6725	Louisville	April 27, 1900	U. Neal
6731	Louisville	April 30, 1900	E. F. Detrick
6732	Louisville	April 30, 1900	F. F. Gilmore
6733	Louisville	April 30, 1900	C. H. Merhoff & Son
6734	Louisville	April 30, 1900	U. L. Ragland & Son
6735	Louisville	April 30, 1900	Von Gounigen Bros.
6737	Louisville	April 30, 1900	Chas. Kaelin
6738	Louisville	April 30, 1900	Moser Bros.
6739	Louisville	April 30, 1900	Beadle & Son
6740	Louisville	April 30, 1900	Hall Bros.

MILK—Not Found Adulterated.

Analytical Data.						REMARKS.
Specific Gravity.	Fat Per Cent.	Solids, not Fat Per Ct.	Total Solids, Per Cent.	Antiseptic.	Color.	
1.0287	6.4	8.60	15.00	None	None....	
1.0335	3.0	9.12	12.12	"	"	Fats, low.
1.0305	3.6	8.49	12.09	"	"	Fats, low.
1.0340	3.4	9.32	12.72	"	"	Fats, low.
1.0295	3.6	8.23	11.83	"	"	Fats, low.
1.0290	4.0	8.19	12.19	"	"	
1.0300	4.1	8.46	12.56	"	"	Frank Potter.
1.0285	3.2	7.90	11.11	"	"	Fats, low—Chas. Swartz.
1.0310	5.4	9.32	12.72	"	"	Fats, low—E. A. Dun.
1.0305	3.0	8.37	11.37	"	"	Fats, low—Lewman & Graves
1.0315	3.8	8.77	12.57	"	"	Fats, low—V. G. Adair.
1.0320	3.0	8.74	11.74	"	"	Fats, low—Wm. Sims.
1.0300	3.2	8.28	11.48	"	"	Fats, low.
1.0300	3.2	8.28	11.48	"	"	Fats, low.
1.0295	3.8	8.27	12.07	"	"	Fats, low.
1.0340	3.8	8.36	13.20	"	"	J. L. Simcoe.
1.0300	3.6	8.36	11.96	"	"	
1.0300	4.0	8.44	12.44	"	"	Fats, low—Mrs. A. Corn.
1.0305	3.0	8.37	11.37	"	"	M. C. Colyer.
1.0305	4.0	8.57	12.57	"	"	Fats, low—J. P. Pound.
1.0305	4.0	8.57	12.57	"	"	A. R. Bennet.
1.0340	4.3	9.50	13.80	"	"	
1.0325	4.2	9.11	13.31	"	"	
1.0295	3.5	8.21	11.71	"	"	Fats, low.
1.0330	3.6	9.11	13.31	"	"	Fats, low.
1.0330	3.3	9.05	12.35	"	"	Fats, low.
1.0265	6.8	8.13	14.93	"	"	
1.0295	5.5	8.62	14.12	"	"	S. A. Prather.
1.0270	9.4	8.77	18.17	"	"	E. A. Spangler.
1.0300	4.2	8.45	12.68	"	"	Chas. Ashton.
1.0280	3.4	7.82	11.22	"	"	Fats, low.
1.0325	3.0	8.87	11.87	"	"	Fats, low.
1.0315	3.8	8.77	12.57	"	"	Fats, low.
1.0340	3.4	9.32	12.72	"	"	Fats, low.
1.0325	3.5	8.97	12.47	"	"	Fats, low.
1.0330	3.5	9.09	12.59	"	"	Fats, low.
1.0330	4.2	9.23	13.43	"	"	
1.0310	3.8	8.65	12.45	"	"	J. D. Wakefield.
1.0325	4.5	9.17	13.67	"	"	G. W. Hardin.
1.0310	3.8	8.65	12.45	"	"	J. L. Collins.
1.0310	3.0	8.49	11.49	"	"	Fats, low.
1.0320	3.9	8.92	12.82	"	"	
1.0280	3.7	7.88	11.58	"	"	
1.0280	3.6	7.86	11.46	"	"	Fats, low.
1.0315	4.0	8.82	12.82	"	"	
1.0325	4.4	9.15	13.15	"	"	A. Koehler.
1.0285	3.5	7.97	11.47	"	"	
1.0285	5.0	8.27	13.27	"	"	
1.0305	3.4	8.45	11.85	"	"	
1.0325	3.3	8.93	12.23	"	"	Fats, low.
1.0310	3.1	8.51	11.61	"	"	Fats, low.
1.0325	3.2	8.91	12.11	"	"	Fats, low.
1.0315	4.0	8.82	12.82	"	"	
1.0280	3.4	7.82	11.22	"	"	Fats, low.
1.0315	3.2	8.65	11.85	"	"	Fats, low.
1.0325	4.2	9.11	13.31	"	"	
1.0305	5.0	8.77	13.77	"	"	
1.0315	3.4	8.69	12.09	"	"	Low in Fats.
1.0315	3.3	8.67	11.97	"	"	Low in Fats.
1.0310	4.6	8.81	13.41	.....	Annatto	
1.0300	2.8	8.20	11.00	.....	None....	Low in Fats
1.0315	6.2	9.13	15.33	.....	.....
1.0310	3.0	8.49	11.49	.....	.....	Low in Fats.
1.0315	4.0	8.82	12.52	.....	.....
1.0340	4.4	9.52	13.92	.....	.....
1.0340	3.0	9.36	12.96	.....	.....	Low in Fats.
1.0320	3.0	8.74	11.74	.....	.....	Low in Fats.
1.0320	4.4	9.02	13.42	.....	.....
1.0325	3.2	8.91	12.11	.....	.....	Low in Fats.

MILK—Not Found Adulterated.

Station No.	Where Obtained.	Date of Collection.	Seller or Producer.
6741	Louisville	May 2, 1900	Jno. Tobb
6742	Louisville	May 2, 1900	L. Brumleve
6744	Louisville	May 2, 1900	A. Wilman
6747	Louisville	May 2, 1900	Henry Harlammert
6748	Louisville	May 2, 1900	F. Von Allmen, Jr.
6750	Louisville	May 2, 1900	P. Von Allmen
6936	Lexington	August 2, 1900	H. S. Lawson
6937	Lexington	August 2, 1900	R. D. Huffman
6938	Lexington	August 2, 1900	M. G. Featherston
6939	Lexington	August 2, 1900	J. R. Tucker
6940	Lexington	August 2, 1900	N. B. Haggard
6941	Lexington	August 2, 1900	N. B. Haggard
6942	Lexington	August 2, 1900	M. R. Perkins
6944	Lexington	August 2, 1900	R. L. & E. L. Parker
6945	Lexington	August 2, 1900	J. B. Baudekofel
6946	Lexington	August 2, 1900	Kriegel Bros.
6947	Lexington	August 2, 1900	Kriegel Bros.
6948	Lexington	August 2, 1900	D. A. Trapp
6949	Lexington	August 2, 1900	McGovern Bros.
6950	Lexington	August 2, 1900	John Furrer
6951	Lexington	August 2, 1900	Ed Downing
6952	Lexington	August 2, 1900	G. Kraehenbuehl
6953	Lexington	August 2, 1900	Odd Fellows' Home
6954	Lexington	August 2, 1900	M. L. Henry
6955	Lexington	August 2, 1900	Mrs. N. B. Frazier
6956	Lexington	August 2, 1900	Geo. W. Jett
6957	Lexington	August 2, 1900	W. B. Hawkins
6958	Lexington	August 6, 1900	J. E. Lilly
6959	Lexington	August 6, 1900	J. B. Hunt
6960	Lexington	August 6, 1900	Lear Bros.
6961	Lexington	August 6, 1900	Mrs. E. E. Berry
6962	Lexington	August 6, 1900	Jas. P. Headley
6963	Lexington	August 6, 1900	Mrs. G. A. Thompson
6964	Lexington	August 6, 1900	Walter Dingle
6965	Lexington	August 6, 1900	Albert Schuler
6967	Lexington	August 6, 1900	Mrs. Mary L. Sayre
6968	Lexington	August 6, 1900	R. C. Nave
6970	Lexington	August 8, 1900	E. L. Lilly
6971	Lexington	August 8, 1900	Mrs. L. B. Shouse
6972	Lexington	August 8, 1900	G. L. Ballard
6973	Lexington	August 8, 1900	J. W. Clark
6974	Lexington	Aug. 8, 1900	T. H. Wilson
6975	Lexington	Aug. 8, 1900	J. D. Yarrington
6977	Lexington	Aug. 8, 1900	W. B. Taylor
6978	Lexington	Aug. 8, 1900	J. M. Downing
6979	Lexington	Aug. 9, 1900	J. H. Parker
6980	Lexington	Aug. 9, 1900	Jno. Furrer
6981	Lexington	Aug. 9, 1900	J. E. Muir
6982	Lexington	Aug. 9, 1900	W. B. Taylor
6983	Lexington	Aug. 9, 1900	Ed Downing
6984	Lexington	Aug. 9, 1900	M. A. Pharis
6985	Lexington	Aug. 9, 1900	W. F. Wheatley
6987	Lexington	Aug. 9, 1900	David Cahil
8048	Newport	May 16, 1901	Geo. Hilbert & Bro.
8049	Newport	May 16, 1901	P. Young & Son
8050	Newport	May 16, 1901	Wersch Bros.
8051	Newport	May 16, 1901	Wersch Bros.
8052	Newport	May 16, 1901	Wersch Bros.
8053	Newport	May 16, 1901	J. D. Burgman, Jr.
8054	Newport	May 16, 1901	F. Hunleman
8055	Newport	May 16, 1901	N. Northeide
8056	Newport	May 16, 1901	Jno. F. Long
8057	Newport	May 16, 1901	Jno. F. Long
8058	Newport	May 16, 1901	Henry Wulkot
8059	Newport	May 16, 1901	Henry Wulkot
8060	Newport	May 16, 1901	A. Young
8061	Newport	May 16, 1901	Mrs. Young & Son
8062	Newport	May 16, 1901	A. Young
8063	Newport	May 16, 1901	P. Young

MILK—Not Found Adulterated.

Analytical Data.						REMARKS.
Specific Gravity.	Fat Per Cent.	Solids, not Fat Per Ct.	Total Solids, Per Cent.	Antiseptic.	Color.	
1.0300	3.2	8.28	11.48	.....	.....	Low in Fats—Wilson Clan.
1.0320	3.2	8.78	11.98	.....	.....	Low in Fats.
1.0295	3.4	8.19	11.59	.....	.....	Low in Fats.
1.0320	5.2	9.18	14.38	.....	.....
1.0310	3.0	8.49	11.49	.....	.....	Low in Fats.
1.0330	3.0	8.99	11.99	.....	.....	Low in Fats.
1.0320	4.1	8.83	12.93	.....	.....
1.0340	4.6	9.44	14.00	.....	.....
.....	0.3	.....	.....	.....	.....	Buttermilk.
1.0360	4.8	9.99	14.79	.....	.....
.....	0.4	.....	.....	.....	.....	Buttermilk.
1.0320	5.6	9.15	14.75	.....	.....
1.0350	4.2	8.98	13.82	.....	.....
1.0340	5.0	9.52	14.52	.....	.....
1.0320	6.0	9.23	15.23	.....	.....
1.0330	5.2	9.27	14.47	.....	.....
1.0320	0.5	8.10	8.60	.....	.....	Buttermilk.
1.0320	4.8	8.98	13.78	.....	.....
1.0310	5.0	8.76	13.76	.....	.....
1.0320	4.4	8.90	13.30	.....	.....
1.0320	5.0	9.02	14.02	.....	.....
1.0310	4.7	8.70	13.40	.....	.....
1.0340	5.0	9.52	14.52	.....	.....
1.0320	4.6	8.94	13.54	.....	.....
.....	4.3	9.13	13.43	.....	.....
1.0330	4.6	9.19	13.79	.....	.....
1.0340	4.0	9.32	13.32	.....	.....
1.0330	4.6	9.19	13.79	.....	.....
1.0330	4.1	9.09	13.19	.....	.....
1.0340	4.1	9.34	13.44	.....	.....
1.0320	4.5	8.92	13.42	.....	.....
1.0330	4.5	9.17	13.67	.....	.....
1.0310	4.7	8.85	13.05	.....	.....
1.0310	4.7	8.70	13.40	.....	.....
1.0340	4.0	9.32	13.32	.....	.....
1.0340	5.1	9.54	14.64	.....	.....
1.0300	3.7	8.25	11.95	.....	.....
1.0330	4.9	9.25	14.15	.....	.....
1.0310	4.2	8.60	12.80	.....	.....
1.0320	3.9	8.79	12.69	.....	.....
1.0330	4.9	9.25	14.15	.....	.....
1.0330	5.4	9.36	14.76	None	None	
1.0340	4.8	9.48	14.28	.....	.....
.....	0.6	.....	.....	.....	.....	Buttermilk.
1.0310	5.6	8.89	14.49	.....	.....
1.0320	5.4	9.10	14.50	.....	.....
1.0330	5.0	9.27	14.27	.....	.....
.....	0.6	.....	.....	.....	.....	Buttermilk.
1.0340	4.8	9.48	14.28	.....	.....
1.0310	4.3	8.62	12.92	.....	.....
1.0320	5.4	9.10	14.50	.....	.....
1.0320	4.3	8.88	13.18	.....	.....
1.0320	4.8	8.98	13.78	.....	.....
.....	.....	.....	.....	.....	.....	Sample broken.
1.034	4.2	9.36	13.56	.....	.....
1.032	3.9	8.79	12.69	.....	.....
1.031	4.2	8.60	12.80	.....	.....
1.031	4.6	8.68	13.28	.....	.....
1.029	3.2	7.89	11.09	.....	.....	Fats low.
1.033	4.0	9.06	13.06	.....	.....
1.034	4.0	9.32	13.32	.....	.....
1.034	4.2	9.36	13.56	.....	.....
1.034	4.2	9.36	13.56	.....	.....
1.033	4.1	9.08	13.18	.....	.....
1.031	5.6	8.89	14.49	.....	.....
1.034	4.5	9.42	13.92	.....	.....
1.034	3.9	9.30	13.20	.....	.....
1.034	4.2	9.36	13.56	.....	.....
1.032	4.0	8.81	12.81	.....	.....

MILK—Not Found Adulterated.

Station No.	Where Obtained.	Date of Collection.	Seller or Producer.
8064	Newport	May 16, 1901	P. Young
8065	Newport	May 16, 1901	Wm. Percy
8066	Newport	May 16, 1901	Wm. Percy
8067	Newport	May 16, 1901	Mrs. H. A. Northcott
8068	Newport	May 16, 1901	Schurman Bros.
8069	Newport	May 16, 1901	Schurman Bros.
8070	Newport	May 16, 1901	Albert Fieldman
8071	Newport	May 16, 1901	Albert Fieldman
8072	Newport	May 16, 1901	Jno. Kuchler
8073	Newport	May 16, 1901	Jno. Kuchler
8074	Newport	May 16, 1901	Jno. Kuchler
8075	Newport	May 16, 1901	Jno. Kuchler
8076	Newport	May 16, 1901	P. Young
8077	Newport	May 16, 1901	P. H. Sauerbeck
8078	Newport	May 16, 1901	P. H. Sauerbeck
8079	Newport	May 16, 1901	P. H. Sauerbeck
8080	Newport	May 16, 1901	P. Young
8225	Lexington	July 18, 1901	Ky. Pasteurizing Co.
8226	Lexington	July 18, 1901	Ky. Pasteurizing Co.
8227	Lexington	July 18, 1901	Ky. Pasteurizing Co.
8228	Lexington	July 18, 1901	Ky. Pasteurizing Co.
8229	Lexington	July 18, 1901	N. F. Berry
8230	Lexington	July 18, 1901	H. S. Lawson
8231	Lexington	July 18, 1901	J. R. Tucker
8232	Lexington	July 18, 1901	G. R. Ballard
8233	Lexington	July 18, 1901	Ky. Pasteurizing Co.
8234	Lexington	July 18, 1901	W. B. Hawkins
8235	Lexington	July 18, 1901	Ed. Patterson
8236	Lexington	July 18, 1901	R. C. Nave
8237	Lexington	July 18, 1901	" "
8238	Lexington	July 18, 1901	" "
8239	Lexington	July 18, 1901	J. A. Thompson
8240	Lexington	July 18, 1901	Mrs. M. B. Frazee
8241	Lexington	July 18, 1901	B. A. Wilson
8242	Lexington	July 18, 1901	J. E. Lilly
8243	Lexington	July 18, 1901	J. M. Downing
8244	Lexington	July 18, 1901	McGovern Bros.
8245	Lexington	July 18, 1901	J. D. Yarrington
8246	Lexington	July 18, 1901	L. & H. Kreigel
8247	Lexington	July 18, 1901	Williams Bros.
8248	Lexington	July 18, 1901	Odd Fellows' Home
8249	Lexington	July 18, 1901	W. B. Taylor
8274	Lexington	July 23, 1901	W. L. Honaker
8275	Lexington	July 23, 1901	E. W. Jackson
8276	Lexington	July 23, 1901	J. W. Clarke
8277	Lexington	July 23, 1901	N. B. Haggard
8278	Lexington	July 23, 1901	M. R. Perkins
8279	Lexington	July 23, 1901	Mrs. E. E. Berry
8280	Lexington	July 23, 1901	E. T. Lilly
8281	Lexington	July 23, 1901	A. Schuler
8282	Lexington	July 23, 1901	W. B. Taylor
8283	Lexington	July 23, 1901	W. B. Taylor
8284	Lexington	July 23, 1901	I. H. Parker
8285	Lexington	July 23, 1901	Lear Bros.
8224	Lexington	July 18, 1900	Jno. Furrer
9057	Lexington	December 14, 1901	J. D. Yarrington
9058	Lexington	December 14, 1901	" "
9061	Lexington	December 18, 1901	" "
9061(b)	Lexington	December 18, 1901	" "
8379	Lexington	July 20, 1901	L. & H. Kreigel
7888	Lexington	May 7, 1901	" "
7889	Lexington	May 7, 1901	" "

MILK—Not Found Adulterated.

Analytical Data.						REMARKS.
Specific Gravity	Fat Per Cent.	Solids not Fat Per Ct.	Total Solids Per Cent.	Antiseptic.	Color.	
1.032	4.6	8.94	13.54	None	None....	
1.034	4.0	9.32	13.32	"	"	
1.034	3.6	9.24	12.84	"	"	Fats, low.
1.033	4.8	8.47	13.27	"	"	
1.030	6.6	.....	.....	"	"
1.033	3.8	9.02	12.82	"	"	
1.026	4.2	7.34	11.54	"	"	
1.032	3.0	8.61	11.61	"	"	Fats, low.
1.034	3.8	9.28	13.08	"	"	
1.034	4.2	9.36	13.56	"	"	
1.035	4.8	9.75	14.55	"	"	
1.033	4.2	9.11	13.31	"	"	
1.035	3.6	9.49	13.09	"	"	Fats, low.
1.031	4.6	8.68	13.28	"	"	
1.031	5.2	8.81	14.01	"	"	
1.027	10.0	.....	.....	"	"	Cream, low in fat.
1.034	4.3	9.38	13.68	"	"	
1.032	4.4	8.90	13.30	"	"	
1.032	4.7	8.96	13.66	"	"	
1.032	4.9	9.00	13.90	"	"	
1.031	4.6	8.68	13.28	"	"	
1.032	5.8	9.19	14.99	"	"	
1.033	4.7	9.21	13.91	"	"	
1.033	4.5	9.17	13.67	"	"	
1.030	4.1	8.33	12.43	"	"	
1.032	4.3	8.88	13.18	"	"	
1.032	3.4	8.69	12.09	"	"	Fats, low.
1.033	4.2	9.11	13.31	"	"	
1.032	4.8	8.98	13.78	"	"	
1.036	4.3	9.89	14.19	"	"	
1.031	4.4	8.64	13.04	"	"	
1.031	4.5	8.66	13.16	"	"	
1.032	4.8	8.98	13.78	"	"	
1.033	5.1	9.29	14.39	"	"	
1.033	5.0	9.27	14.27	"	"	
1.032	5.3	9.08	14.38	"	"	
1.032	5.2	9.06	14.26	"	"	
1.031	4.7	8.70	13.40	"	"	
1.033	4.8	9.23	14.03	"	"	
1.032	4.3	8.88	13.18	"	"	
1.032	4.9	9.00	13.90	"	"	
1.033	3.1	8.88	11.98	"	"	Fats, low.
1.032	3.6	8.73	12.33	"	"	" "
1.030	4.5	8.41	12.91	"	"	
1.032	4.6	8.94	13.54	"	"	
1.032	4.4	8.90	13.30	"	"	
1.033	3.7	9.00	12.70	"	"	
1.031	4.6	8.68	13.28	"	"	Fats, low.
1.030	5.0	8.51	13.51	"	"	
1.030	3.5	8.21	11.71	"	"	
1.030	6.4	.....	.....	"	"	Fats, low.
1.032	3.4	8.94	12.34	"	"	His own sample.
1.030	3.4	8.19	11.59	"	"	Fats, low.
1.031	3.9	8.54	12.44	"	"	" "
1.033	4.8	9.23	14.03	"	"	
1.030	5.2	8.55	13.75	"	"	
1.035	5.3	9.82	15.12	"	"	
1.032	3.4	8.69	12.09	"	"	Sent by R. VanDyke.
1.031	3.4	8.44	11.84	"	"	" " "
.....	.....	.....	.....	"	"	Sent by W. H. Warren.
1.028	4.4	7.89	12.29	"	"	Sent by F. W. Gann.
1.028	4.5	7.91	12.41	"	"	

MILK—Found Adulterated.

Station No.	Where Obtained.	Date of Collection.	Seller or Producer.
6654	Louisville	April 10, 1900.....	J. T. Davis & Son
6657	Louisville	April 10, 1900.....	M. Norris
6658	Louisville	April 10, 1900.....	Blue Grass Milk Depot
6659	Louisville	April 10, 1900.....	Hikes & Hess
6662	Louisville	April 11, 1900.....	H. E. Lewman
6664	Louisville	April 11, 1900.....	"
6666	Louisville	April 11, 1900.....	"
6669	Louisville	April 11, 1900.....	"
6677	Louisville	April 13, 1900.....	Kentucky Dairymen's Exchange
6680	Louisville	April 13, 1900.....	"
6705	Louisville	April 19, 1900.....	Louis Meyer
6706	Louisville	April 19, 1900.....	"
6707	Louisville	April 19, 1900.....	"
6708	Louisville	April 19, 1900.....	"
6720	Louisville	April 20, 1900.....	Mrs. L. C. Marsh
6726	Louisville	April 27, 1900.....	Katie Sauer
6727	Louisville	April 27, 1900.....	J. R. Wigginton
6728	Louisville	April 27, 1900.....	J. W. Pittinger
6729	Louisville	April 27, 1900.....	M. J. Steinmetz
6730	Louisville	April 27, 1900.....	Mrs. Burke
6736	Louisville	April 30, 1900.....	B. M. Leinert
6743	Louisville	May 21, 1900.....	F. Sanders
6745	Louisville	May 21, 1900.....	Geo. Berry
6749	Louisville	May 21, 1900.....	Jno. Gassman
6943	Lexington	August 2, 1900.....	W. F. Wheatley
6959	Lexington	August 6, 1900.....	J. B. Hunt
6966	Lexington	August 6, 1900.....	E. W. Jackson
6976	Lexington	August 8, 1900.....	W. B. Taylor
6986	Lexington	August 9, 1900.....	E. W. Jackson
6746	Louisville	May 21, 1900	J. Nielsen
	Lexington	April 17, 1900.....	W. B. Taylor

MILK—Found Adulterated.

Analytical Data						REMARKS.
Specific Gravity.	Fats Per Cent.	Solids not Fat Per Ct.	Total Solids, Per Cent.	Color.	Antiseptic.	
1.0298	3.6	8.36	11.96	None.....	Formalin	Fats low.
1.0320	3.2	8.78	11.98	"	"	" "
1.0325	4.6	9.19	13.79	"	"	
1.0315	2.4	8.50	10.90	"	None	Fats below standard.
1.0235	3.0	6.62	9.62	"	"	Watered.
1.0250	3.2	7.03	10.23	"	"	"
1.0245	3.0	6.87	9.87	"	"	"
1.0280	2.6	7.66	10.26	"	"	"
1.0225	2.7	6.23	8.93	"	"	"
1.0275	3.2	7.66	10.26	"	"	"
1.0305	3.9	8.55	12.45	"	Boric acid	
1.0330	4.4	8.52	12.92	"	"	
1.0315	4.1	8.84	12.94	"	"	
1.0325	3.7	9.01	12.71	"	"	
1.0250	2.2	6.83	9.03	"	None	Watered.
1.0250	3.0	6.39	9.39	Annatto..	"	" and colored.
1.0275	3.8	7.78	11.58	"	"	" " "
1.0235	2.3	7.09	9.39	"	"	" " "
1.0285	3.8	8.03	11.83	"	"	" " "
1.0295	3.7	8.25	11.25	"	"	" " "
1.0290	3.5	8.09	11.59	None.....	Formalin	
1.0300	4.3	8.50	12.80	"	"	
1.0300	4.3	8.50	12.80	"	"	
1.0325	2.3	8.73	11.03	"	None	Watered or skimmed.
1.0320	4.8	8.98	13.78	"	Formaldehyde	
1.0330	4.1	9.09	13.79	"	"	
1.0270	2.8	7.31	10.11	"	None	Watered.
1.0340	4.8	9.48	14.28	"	Formaldehyde	
1.0250	3.4	7.00	10.4	"	None	Watered.
1.0315	3.6	8.73	12.33	"	Boric acid	
				"	Formaldehyde	Sent by George Neal.

OLEOMARGARINE—Found Adulterated.

Station No.	Bought as	Price per lb.	Where Obtained.	Date of Collection.	From Whom Obtained.
6118	Butter	20c	Lexington	Dec. 13, 1899	Blue Grass Grocery Co.
6780	Dairy Butter	20c	Louisville	May 16, 1900	Louisville Tea & Coffee Co.
6791	Dairy Butter	20c	Louisville	May 24, 1900	Hiram Forn
6794	Dairy Butter	20c	Louisville	May 24, 1900	J. & B. Kupper
6796	Dairy Butter	20c	Louisville	May 24, 1900	J. B. Smith
7807	Butter	20c	Louisville	March 16, 1901	E. H. Jenne
7808	Butter	20c	Louisville	March 16, 1901	J. W. Weatherton
7809	Butter	20c	Louisville	March 18, 1901	Louisville Tea & Coffee Co.
7810	Butter	20c	Louisville	March 18, 1901	J. B. Swift
7811	Oleomargarine	20c	Louisville	March 18, 1901	A. Button & Son
7812	Butter	20c	Louisville	March 19, 1901	M. Wolff & Sons
7813	Oleomargarine	20c	Louisville	March 19, 1901	Chas. A. Heusser
7814	Butter	20c	Louisville	March 19, 1901	E. B. Evans
7815	Butter	25c	Louisville	March 19, 1901	Geo. E. Adams
7816	Oleomargarine	20c	Louisville	March 20, 1901	Jno. Bohlson
7817	Oleomargarine	20c	Louisville	March 20, 1901	Fred. Brinke
7818	Oleomargarine	20c	Louisville	March 20, 1901	G. W. Brown
7819	Oleomargarine	20c	Louisville	March 22, 1901	J. C. Becker
7820	Oleomargarine	20c	Louisville	March 22, 1901	W. C. Brown
7821	Butter	20c	Louisville	March 22, 1901	W. C. Cope
7822	Oleomargarine	20c	Louisville	March 22, 1901	Chas. Deckel
7823	Oleomargarine	20c	Louisville	March 25, 1901	Edward Frank
7824	Oleomargarine	20c	Louisville	March 25, 1901	W. P. Grigsby
7826	Butter	20c	Louisville	March 26, 1901	Jno. Hardy
7827	Oleomargarine	20c	Louisville	March 27, 1901	S. S. Jones
7828	Oleomargarine	20c	Louisville	March 27, 1901	A. E. Jones
7829	Oleomargarine	15c	Louisville	March 28, 1901	Wm. Kunker
7830	Oleomargarine	20c	Louisville	March 28, 1901	Robt. Lucas
7831	Butter	25c	Louisville	March 29, 1901	Anton Meyer
7832	Oleomargarine	20c	Louisville	March 29, 1901	Thos. F. Morgan
7833	Butter	25c	Louisville	March 29, 1901	Paul A. Neff
7921	Oleomargarine	20c	Owensboro	May 7, 1901	C. F. Sturgeon
7922	Oleomargarine	25c	Owensboro	May 7, 1901	Lee Birk
7925	Oleomargarine	25c	Owensboro	May 7, 1901	Scherer & Haffendorfer
7932	Butterine	25c	Owensboro	May 8, 1901	Dugan & Rogers
7955	Oleomargarine	15c	Covington	May 13, 1901	R. Hamilton Grocery Co.
7957	Oleomargarine	15c	Covington	May 13, 1901	Geo. C. Goode
7961	Oleomargarine	15c	Covington	May 13, 1901	Great China & Tea Co.
7969	Oleomargarine	20c	Covington	May 13, 1901	J. L. Hilker
7987	Oleomargarine	15c	Covington	May 14, 1901	J. M. McKinley
7988	Oleomargarine	10c	Covington	May 14, 1901	J. M. McKinley
7992	Oleomargarine	20c	Covington	May 14, 1901	B. H. Kroger
8001	Oleomargarine	16c	Covington	May 14, 1901	G. T. Ellison
8013	Oleomargarine	12c	Covington	May 14, 1901	Joe Lalond
8028	Oleomargarine	20c	Newport	May 15, 1901	Great China & Tea Co.
8032	Oleomargarine	11c	Newport	May 15, 1901	Otto Deppenbrock
8034	Oleomargarine	12c	Newport	May 15, 1901	B. H. Kroger
8037	Oleomargarine	13c	Newport	May 15, 1901	Frank Fecker
8045	Oleomargarine	15c	Newport	May 15, 1901	B. H. Kroger
8436	Butterine	15c	Louisville	Aug. 2, 1901	F. H. Wirries, Manager
8439	Oleomargarine	15c	Louisville	Aug. 2, 1901	Mammoth Grocery Co.
8534	Oleomargarine	20c	Frankfort	Aug. 23, 1901	Howard & Noonan
8553	Oleomargarine	20c	Frankfort	Aug. 24, 1901	Howard & Noonan
8554	Oleomargarine	20c	Frankfort	Aug. 24, 1901	A. H. Wagner
8636	Oleomargarine	20c	Frankfort	Sept. 6, 1901	Howard & Noonan
8637	Oleomargarine	20c	Frankfort	Sept. 6, 1901	A. H. Wagner
8709	Oleomargarine	25c	Louisville	Oct. 11, 1901	M. Wolff & Sons
8716	Oleomargarine	15c	Louisville	Oct. 11, 1901	Mammoth Grocery Co.
7825	Oleomargarine	15c	Louisville	March 26, 1901	Fred Gansman
7934	Creamery Butter	25c	Owensboro	May 9, 1901	D. Deyer
7991	Creamery Butter	20c	Covington	May 14, 1901	G. B. Murphy
8440	Butter	20c	Louisville	Aug. 2, 1901	I. Felsenthal
8941	Oleomargarine	20c	Lexington	Dec. 10, 1901	T. B. Satterwhite

OLEOMARGARINE—Found Adulterated.

Manufacturer.	Analytical Data.			Antiseptic.	Label or Stamp on Package.
	Reichert, M.	Valenta Test, Degrees C	Color.		
.....	.....	96.0	Annatto .....	.....	Oleomargarine.
.....	1.5	88.0	Azo Dye ...	.....	None.
.....	0.34	86.0	" " .....	.....	Oleomargarine.
.....	2.5	89.0	Questionable .....	.....	"
.....	0.86	93.0	" " .....	.....	None.
.....	1.2	90.0	Azo Dye ...	Boric acid, 20%	Oleomargarine.
.....	1.0	96.0	" " .....	.....	"
.....	1.7	98.0	" "	Boric acid, 14%	"
.....	1.0	95.0	" " .....	.....	"
.....	.....	91.0	" " .....	.....	"
.....	1.2	98.0	Questionable .....	.....	"
.....	.....	88.0	Azo Dye ...	.....	"
.....	0.9	90.0	" " .....	.....	"
.....	1.0	96.0	" " .....	.....	"
.....	.....	94.0	" " .....	.....	"
.....	.....	95.0	" " .....	.....	"
.....	.....	95.0	" " .....	.....	"
.....	.....	89.0	" " .....	.....	"
.....	.....	92.0	" " .....	.....	"
.....	0.9	89.0	" " .....	.....	"
.....	.....	92.0	" " .....	.....	"
.....	.....	92.0	" " .....	.....	"
.....	.....	94.0	" " .....	.....	"
.....	0.9	90.0	" " .....	.....	"
.....	.....	87.0	" " .....	.....	"
.....	.....	89.0	" " .....	.....	"
Grom Bros. ....	.....	88.0	" " .....	.....	"
.....	.....	90.0	" "	Boric acid, 0.11% ..	"
.....	1.7	89.0	" "	Boric acid, 0.15% ..	"
.....	.....	89.0	" " .....	.....	"
.....	1.8	90.0	" " .....	.....	"
Braun & Fitts .....	.....	88.0	" " .....	.....	"
" " .....	.....	96.0	" " .....	.....	"
" " .....	.....	94.0	Aniline .....	.....	"
Columbus Butter Co.	2.2	90.0	" " .....	.....	"
Kruggar & Co. ....	.....	87.0	" " .....	.....	"
Mulverhill & Ruban .....	.....	85.0	" "	Boric acid	"
Ohio Butterine Co. ....	.....	90.0	" "	" "	"
" " .....	.....	90.0	" "	" "	"
" " .....	.....	92.0	" "	" "	"
" " .....	.....	90.0	" "	" "	"
Wm. J. Moxley .....	.....	87.0	" "	" "	"
Ohio Butterine Co. ....	.....	79.0	" "	" "	"
" " .....	.....	78.0	" "	" "	"
" " .....	.....	88.0	" " .....	.....	"
" " .....	.....	84.0	" " .....	.....	"
Ohio Butterine Co. ....	.....	83.0	" "	Boric acid	"
" " .....	.....	83.0	" "	" "	"
" " .....	.....	81.0	" "	Boric acid	"
Capital City Dairy Co.	1.9	87.0	Annatto .....	.....	"
Falls City Dairy Co.	1.6	83.0	Aniline .....	.....	"
Columbus Butter Co. ....	.....	88.0	Annatto .....	.....	"
" " .....	.....	90.0	" " .....	.....	"
Ohio Butterine Co. ....	.....	89.0	Aniline .....	.....	"
Columbus Butter Co. ....	.....	91.0	Annatto .....	.....	"
Ohio Butterine Co. ....	.....	89.0	Aniline .....	.....	"
" " .....	.....	90.0	" " .....	.....	"
" " .....	.....	90.0	" " .....	.....	"
" " .....	.....	93.0	" " .....	.....	"
" "	1.5	93.0	" " .....	.....	"
" "	2.0	87.0	" "	Boric acid	"
" "	2.3	87.0	" "	Boric acid, 0.6%	"
Capital City Dairy Co. ....	.....	93.0	Annatto .....	.....	"

MINCE MEATS—Found Adulterated.

Station No.	Where Obtained.	Date of Collection.	From Whom Obtained.
6128	Lexington	December 8, 1899.....	J. W. Parrish
6130	Lexington	December 13, 1899.....	Honaker Grocery Co.
6221	Maysville	December 15, 1899.....	Jno. O. Keefe
6467	Lexington	April 2, 1900	Honaker Grocery Co.
6481	Lexington	April 14, 1900	" " " " " " " " " " " "
6492	Louisville	April 18, 1900	Mammoth Grocery Co.
6493	Louisville	April 18, 1900	Moses & Nichols
7612	Richmond	February 2, 1901	L. D. Landers
8092	Owensboro	May 13, 1901	O'Bryan & Lawson

MINCE MEATS—Not Found Adulterated.

Station No.	Where Obtained.	Date of Collection.	From Whom Obtained.
7997	Covington	May 14, 1901.....	B. H. Kroger

LARD AND OLIVE OILS, ETC.—Not Found Adulterated.

Station No.	Make or Brand on Label or Stated.	Where Obtained.	Price Paid.	Date of Collection.	From Whom Obtained.
7960	Table Oil	Covington	\$0 08	May 13, 1901	Great China Tea Co.
7994	Olive Oil	Covington	28	May 14, 1901	B. H. Kroger
7995	Salad Oil	Covington	08	.....	B. H. Kroger
8041	Olive Oil	Newport .....	.....	May 15, 1901	T. W. Wilson
8044	Lucca Oil	Newport	50	May 15, 1901	W. H. Homer
8046	Salad Oil	Newport	08	May 15, 1901	B. H. Kroger
8651	Olive Oil	Louisville	25	September 26, 1901..	I. Schafer
8658	Olive Oil	Louisville	25	September 28, 1901..	P. F. Cook
8709	Leaf Lard .....	.....	15	October 10, 1901	Wolff & Sons
8041	Olive Oil	Newport .....	.....	May 15, 1901	G. W. Wilson
8044	Olive Oil	Newport	50	May 15, 1901	W. H. Homer
7805	Olive Oil .....	.....	.....	March 21, 1901 .....	.....
7806	Olive Oil .....	.....	.....	March 21, 1901 .....	.....

LARD AND OLIVE OILS, ETC.—Found Adulterated.

Station No.	Make or Brand on Label or Stated.	Where Obtained.	Price Paid.	Date of Collection.	From Whom Obtained.
8707	Compound Lard	Louisville	10	October 10, 1901	Wolff & Sons

MINCE MEATS—Found Adulterated.

Manufacturer or Producer.	Sugar Per Cent.	Glucose, Per Cent.	Antiseptic.	REMARKS.
E. N. Dailey & Co.	4.6	21.	Borates	
Atmore & Son	Benzoic acid	
Mann Pk. Co.	Salicylic acid	
Atmore & Son	" trace	
" "	" "	
" "	" "	
E. G. Dailey & Co.	15.	Borates	
" " " "	14.	Boric acid	

MINCE MEATS—Not Found Adulterated.

Manufacturer or Producer.	Sugar, Per Cent.	Glucose, Per Cent.	Antiseptic.	REMARKS.
Merrill, Soule & Co.	5.74	.....	.....

LARD AND OLIVE OILS, ETC.—Not Found Adulterated.

Manufacturer or Producer.	Analytical Data.					REMARKS.
	Sp. Grav. 15.5C.	Iodine No.	Halphin Test.	Baldwin Test.	Bechi Test.	
Bruce & West .....	.9220	109.7	Dark red .	.....	.....	Cotton seed oil.
Benton Fils .....	.9168	82.5	Pink	No change .....	.....
Lissard Fils .....	.9218	107.7	Dark red ..	" " .....	.....	Cotton seed oil.
.....	.9161	78.8	Same .....	" " .....	.....
E. Rae & Co. ....	.9159	78.3	Same .....	" " .....	.....
.....	.9221	107.1	Dark red ..	" " .....	.....	Cotton seed oil.
.....	.9160	77.7	No change.	" " .....	.....
.....	.9164	79.4	No change.	" " .....	.....
Swift & Co. ....	.....	60.0	Faint pink.	.....	.....	Bechi's, no reaction
Rugins & Co. ....	.9161	78.8	No change.	No change .....	.....
S. Rae & Co. ....	.9159	78.3	No change.	" " .....	.....
L. A. Price .....	.9166	80.2	No change.	" " .....	.....	Quality extra sup.
L. A. Price .....	.9163	81.1	No change.	" " .....	.....	Quality superfine.

LARD AND OLIVE OILS, ETC.—Found Adulterated.

Manufacturer or Producer.	Analytical Data.					REMARKS.
	Sp. Grav. 15.5c.	Iodine No.	Halptrin Test.	Baldwin Test.	Bechi Test.	
Swift & Co.	72.5	Dark red ..	.....	.....	Cotton seed oil.

SODA FOUNTAIN DRINKS—Not Found Adulterated.

Station No.	Name of Syrup or Flavor.	Date of Collection.	Where Obtained.	From Whom Obtained.
8381	Rock Candy	July 26, 1901	Lexington	McGurk & Spears
8383	Coca Cola	July 26, 1901	Lexington	McGurk & Spears
8385	Banana	July 26, 1901	Lexington	McGurk & Spears
8391	Orange Cider	July 26, 1901	Lexington	J. P. Glenn
8392	Coca Cola	July 26, 1901	Lexington	J. P. Glenn
8394	Cherry Cobbler	July 26, 1901	Lexington	J. P. Glenn
8397	Peach Stock	July 26, 1901	Lexington	George Schange
8398	Claret Phosphate	July 26, 1901	Lexington	George Schange
8399	Peach	July 26, 1901	Lexington	Davis Drug Co.
8400	Grape Juice	July 26, 1901	Lexington	Childs Bros.
8401	Coca Cola	July 26, 1901	Lexington	Davis Drug Co.
8402	Orange Cider	July 26, 1901	Lexington	F. Fugazzi
8403	Cherry	July 26, 1901	Lexington	F. Fugazzi
8404	Coca Cola	July 26, 1901	Lexington	F. Fugazzi
8407	Strawberry	July 26, 1901	Lexington	C. A. Johns
8408	Cherry Phosphate	July 26, 1901	Lexington	C. A. Johns
8411	Blue Ribbon	July 26, 1901	Lexington	Childs Bros.
8412	Grape Juice	July 26, 1901	Lexington	Childs Bros.
8414	Pineapple	July 26, 1901	Lexington	R. H. Gray
8640	Pineapple	September 18, 1901	Lexington	J. P. Glenn
8641	Peach	September 18, 1901	Lexington	J. P. Glenn
8645	Claret Phosphate	September 18, 1901	Lexington	McGurk & Spears
8646	Banana	September 18, 1901	Lexington	McGurk & Spears
8660	Phospho	October 7, 1901	Lexington	R. H. Gray
8661	Strawberry	October 7, 1901	Lexington	R. H. Gray
8662	Pineapple	October 7, 1901	Lexington	R. H. Gray
8663	Raspberry	October 7, 1901	Lexington	Davis Drug Co.
8664	Strawberry	October 7, 1901	Lexington	Davis Drug Co.
8665	Pineapple	October 7, 1901	Lexington	Davis Drug Co.
8666	Claret Phosphate	October 7, 1901	Lexington	Davis Drug Co.
8668	Strawberry	October 8, 1901	Lexington	George Schange
8669	Wild Cherry Phosp.	October 8, 1901	Lexington	George Schange
8670	Banana	October 8, 1901	Lexington	George Schange
8671	Orange Phosphate	October 8, 1901	Lexington	George Schange
8672	Pineapple	October 8, 1901	Lexington	George Schange
8673	Pineapple	October 8, 1901	Lexington	F. Fugazzi
8674	Vanilla	October 8, 1901	Lexington	F. Fugazzi
8675	Claret Phosphate	October 8, 1901	Lexington	F. Fugazzi
8638	Strawberry	September 18, 1901	Lexington	J. P. Glenn
8643	Strawberry	September 18, 1901	Lexington	J. P. Glenn
8667	Orange Phosphate	October 7, 1901	Lexington	McGurk & Spears
8635	Grape Juice	September 11, 1901	Lexington	Davis Drug Co.
				George Schange

SODA FOUNTAIN DRINKS—Found Adulterated.

8043	Concord Grape J.	May 15, 1901	Newport	W. H. Homer
8201	Welch's Grape J.	July 16, 1901	Lexington	McAdams & Warford
8382	Cherry Cobler	July 26, 1901	Lexington	McGurk & Spears
8384	Orange Cider	July 26, 1901	Lexington	McGurk & Spears
8386	Strawberry	July 26, 1901	Lexington	McGurk & Spears
8387	Orange Syrups	July 26, 1901	Lexington	McGurk & Spears
8388	Wild Cherry Phosp.	July 26, 1901	Lexington	McGurk & Spears
8389	Pepsin Ade	July 26, 1901	Lexington	McGurk & Spears
8390	Claret Phosphate	July 26, 1901	Lexington	McGurk & Spears
8392	Strawberry Syrup	July 26, 1901	Lexington	J. P. Glenn
8395	Concent'd Cherry J	July 26, 1901	Lexington	J. P. Glenn
8396	Vola	July 26, 1901	Lexington	George Schange
8406	Pineapple	July 26, 1901	Lexington	C. A. Johns
8410	Raspberry	July 26, 1901	Lexington	Childs Bros.
8413	Strawberry Syrup	July 26, 1901	Lexington	R. H. Gray
8425	Orange Phosphate	July 31, 1901	Louisville	R. M. Hughes & Co.
8639	Cherry Cobbler	September 18, 1901	Lexington	J. P. Glenn
8642	Claret Phosphate	September 18, 1901	Lexington	J. P. Glenn
8644	Cherry Cobbler	September 18, 1901	Lexington	McGurk & Spears
8659	Cherry Phosphate	October 7, 1901	Lexington	Childs Bros.
8405	Blood Orange	July 26, 1901	Lexington	C. A. Johns
8409	Cherry Phosphate	July 26, 1901	Lexington	Childs Bros.
8421	Cherry Phosphate	July 30, 1901	Louisville	Wolf & Sons
8006	Grape Juice	May 14, 1901	Covington	Jno. Evans
8377	Cherry Cobbler	July 17, 1901	Lexington	McGurk & Spears
8378	Cherry Cobbler	July 17, 1901	Lexington	J. P. Glenn

SODA FOUNTAIN DRINKS—Not Found Adulterated.

Manufacturer of Syrup or Flavor.	Antiseptic.	Color Artificial.	Remarks.
Burr, Paff & Co.	None found	None found	Found to be raspberry flavor.
Coca Cola Co.	None found	None found	
.....	None found	None found	
J. P. Glenn	None found	None found	
Coca Cola Co.	None found	None found	
Concentrated Co.	None found	None found	
Crown Cordial & Extract Co.	None found	None found	
Benton Meyers	None found	None found	
Crown Extract & Cordial Co.	None found	None found	
Childs Bros.	None found	None found	
Coca Cola Co.	None found	None found	
F. Fugazzi	None found	None found	
Benton Meyers	None found	None found	
Cocoa Cola Co.	None found	None found	
Gunthers	None found	None found	
Thompsons	None found	None found	
Benton Meyers	None found	None found	
Vinland Grape Juice Co.	None found	None found	
.....	.....	None found	
.....	None found	None found	
.....	None found	None found	
.....	None found	None found	
.....	Questionable	None found	
.....	None found	None found	
.....	None found	None found	
.....	Questionable	None found	
.....	None found	None found	
.....	Questionable	None found	
.....	None found	None found	
.....	None found	None found	
.....	None found	None found	
.....	None found	None found	
.....	None found	None found	
.....	None found	None found	
.....	None found	None found	
.....	None found	None found	
.....	None found	None found	
.....	Questionable	None found	
.....	Questionable	None found	
.....	None found	None found	
Welch Grape Juice Co.	None found	None found	Red label, "Without Antiseptics."

SODA FOUNTAIN DRINKS— Found Adulterated.

Freemont Grape Juice Co.	Salicylic acid .....	.....
Welch's Grape Juice Co.	Salicylic acid .....	.....
McGurk & Spears	Salicylic acid	Aniline color	
McGurk & Spears	None	Aniline color	
Crown Cordial Extract Co.	Salicylic acid	Aniline color	
Crown Cordial Extract Co.	Salicylic acid	None found	
Walker Shaw Phosphate Co.	Salicylic acid	None found	
Pepsin Ade Co.	Salicylic acid	Aniline color	
.....	Salicylic acid	None found	
J. P. Glenn	Salicylic acid	Aniline color	
Hance Bros. & White	Salicylic acid	None found	
Chicago Concentrated Co.	Salicylic acid	Aniline color	
Benton Meyers	Salicylic acid	None found	
Benton Meyers	Salicylic acid	Aniline color	
.....	Salicylic acid	Aniline color	
R. M. Hughes & Co.	None found	Aniline color	
.....	None found	Aniline color	
.....	.....	Aniline	
McGurk & Spears	Salicylic acid	Aniline	
.....	None found	Aniline color	
.....	None found	Cochineal	
.....	Salicylic acid	None found	
Thompson .....	.....	Aniline	
Freemont Grape Juice Co.	Salicylic acid .....	.....
McGurk & Spears	Salicylic acid	Aniline	
Buck & Carridge	Salicylic acid	Aniline	

SYRUPS, SUGARS AND HONEY—Not Found Adulterated.

Station No.	Make or Brand.	Where Obtained.	Date of Collection.	From Whom Obtained.
6148	Old Manner Canadian Maple Syrup	Lexington	December 6, 1899 ..	Warren Bros.
6149	Pure Quebec Maple Syrup	Lexington	December 6, 1899 ..	Warren Bros.
6151	Pure Maple Syrup	Lexington	December 8, 1899 ..	J. W. Parish
6154	White Clover Honey..	Lexington	December 11, 1899 ..	Joe Dinelli
6423	Pure Maple Sugar	Versailles	February 28, 1900....	J. E. Neet
6424	Pure Maple Sugar	Versailles	February 28, 1900....	J. E. Neet
6425	Granulated Sugar	Versailles	February 28, 1900....	J. E. Neet
6428	Pure Maple Syrup	Versailles	February 28, 1900....	J. M. Wasson
6448	Pure Maple Syrup	Garrard County ...	March 17, 1900	M. Simmons
6609	New Orleans Molasses	Lexington	June 12, 1900	H. P. Kinkead
7059	Sorghum Molasses	Lynnville	October 24, 1900	W. H. Scherffius
7964	Pure White Clover Honey	Covington	May 13, 1901	J. Hilker
7973	Pure Honey	Covington	May 14, 1901	E. J. Goebel
7980	Pure Honey	Covington	May 14, 1901	I. H. Seppenfield
8711	Granulated Sugar	Louisville	October 10, 1901	M. Wolf & Sons

TOMATO CATSUP, SAUCES, ETC.—Not Found Adulterated.

Station No.	Brand or Make.	Where Obtained.	Price Paid.	Date of Collection.	From Whom Obtained.
8648	Tomato Catsup ...	Louisville	10c	Sept. 26, 1901	Wm. Cumming
8796	Standard Catsup...	Frankfort .....	...	Nov. 4, 1901	H. S. Wash & Co...
8795	Pepper Sauce	Frankfort .....	...	Nov. 4, 1901	H. S. Wash & Co...
8795 (b)	Pepper Sauce	Frankfort .....	...	Nov. 4, 1901	H. S. Wash & Co...

SYRUPS, SUGARS AND HONEY—Not Found Adulterated.

Manufacturer or Wholesaler.	Sugar, Per Cent.	Water, Per Cent.	Ash, Per Cent.	Acidity.	Polarization.		Temper- ature C.
					Direct.	Invert.	
Power Grocery Co.	62.4	....	....	....	+60.4	-22.	24°
J. F. Hertmeier & Sons	61.8	....	....	....	+60.6	-21.	24°
Pearson & Clarke	60.4	....	....	....	+59.3	-20.4	24°
Vogt & Foley	2.6	....	....	....	-12.0	-15.4	24°
Curry, Tunis & Norwood	87.2	....	....	....	+85.	-29.2	26°
Reinhardt & Newton	84.1	....	....	....	+85.	-25.2	26°
Martin & Woolfolk	99.94	....	....	....	+99.6	-21.4	26°
Curry, Tunis & Norwood	63.0	....	....	....	+61.6	-21.	26°
.....	56.3	....	....	....	+55.2	-18.6	26.6
New Orleans Coffee Co.	46.9	24.45	3.03	....	....	....	....
.....	....	35.8	2.4	11.8cc	....	....	....
F. W. Muth & Co.	1.9	....	....	....	-13.3	-15.5	31°
C. H. Weber	1.5	....	....	....	-8.5	-10.5	31°
C. H. Weber	1.5	....	....	....	-10.0	-12.0	31°
.....	98.0	....	....	....	+99.6	-30.3	27°

TOMATO CATSUP, SAUCES, ETC.—Not Found Adulterated.

Manufacturer.	Antiseptic.	Color.	Label.
E. Ottenheimer & Son.	Benzoic acid	Aniline	"These goods are thus labeled adulterated to conform to the Pure Food Laws of Kentucky." "Harmless vegetable coloring and soda benzoate used; preservative used."
Hirsch Bros. & Co..	Benzoic acid	Aniline	
Hirsch Bros. & Co..	None	None	
Hirsch Bros. & Co..	None	None	

TOMATO CATSUP—Found Adulterated.

Station No.	Brand or Make.	Where Obtained.	Price Paid.	Date of Collection.	From Whom Obtained.
6162	West Virginia	Lexington .....	...	Dec. 8, 1899	H. Buchegnani
6170	Maple Leaf	Lexington .....	...	Dec. 13, 1899	W. W. Williams ..
6171	Anchor	Maysville .....	...	Dec. 15, 1899	Jno. O'Keif
6172	Butters	Maysville .....	...	Dec. 15, 1899	R. B. Lovill
6173	Wild Rose	Maysville .....	...	Dec. 15, 1899	Jno. W. DeBald ...
7981	Standard High Grade.	Covington	5c	May 14, 1901	I. H. Seppingfield
7993	Ivory	Covington	5c	May 14, 1901	B. H. Kroger
8033	Pure Tomato	Newport	4c	May 15, 1901	Otto Deppenbrock.
8035	Roseberry	Newport	8c	May 15, 1901	B. H. Kroger
8042	Monogram	Newport	5c	May 15, 1901	T. W. Wilson
8082	Finest Quality	Owensboro	10c	May 11, 1901	Scherer & Hafenderfer
8085	Waldorf	Owensboro	15c	May 11, 1901	Dugan & Rogers ..
8987	Home Prepared	Owensboro	10c	May 13, 1901	McCann & Jones .
8089	Admiral	Owensboro	10c	May 13, 1901	Mrs. Rollins
8091	High Grade	Owensboro	10c	May 13, 1901	O'Bryan & Lawson
8430	Tomato Catsup	Louisville	10c	Aug. 1, 1901	Gast & Croffts ...
8435	Rival	Louisville	5c	Aug. 1, 1901	Price & Lucas
8438	Sunny Side	Louisville	10c	Aug. 2, 1901	Mammoth Gro. Co.
8442	Ferndale	Louisville	15c	Aug. 3, 1901	L. Zapp & Co.
8540	Cruikshank's Ketchup	Frankfort	15c	Aug. 23, 1901	M. Ellwanger
8541	Chill Sauce	Frankfort	20c	Aug. 23, 1901	Jno. Driscoll
8548	Chimes	Frankfort	5c	Aug. 23, 1901	Landers & Tichenor
8549	Waldorf	Frankfort .....	...	Aug. 23, 1901	Landers & Tichenor
8558	Tomato Catsup	Frankfort	10c	Aug. 23, 1901	George Salender ..
8647	Tomato Catsup	Louisville	10c	Sept. 26, 1901	Wm. Cummings ..
8538	Maple Leaf	Frankfort .....	...	Aug. 23, 1901	Lang'd'n Creasey Co
8545	Monarch	Frankfort	10c	Aug. 23, 1901	N. B. McKinney .
8649	Heinz	Frankfort	10c	Aug. 23, 1901	N. B. McKinney .
8654	High Grade	Frankfort	5c	Aug. 23, 1901	S. Goldsmith
8656	Chill Sauce	Frankfort	20c	Aug. 28, 1901	P. F. Koch.....
8657	Chimes	Frankfort	5c	Aug. 28, 1901	P. F. Koch.....
8698	Tomato Catsup	Louisville	10c	Oct. 10, 1901	Wolff & Son
8701	Price's Imp.	Louisville	10c	Oct. 10, 1901	Wolff & Son
8703	German	Louisville	10c	Oct. 10, 1901	Wolff & Son
8721	Van Camp's	Nicholasville	10c	Oct. 14, 1901	J. R. Miller
8722	Sunny Side	Nicholasville	10c	Oct. 14, 1901	J. R. Miller
8723	Heinz	Nicholasville	15c	Oct. 14, 1901	R. L. Goucher
8724	Chill Sauce	Nicholasville	10c	Oct. 14, 1901	R. L. Goucher
8727	Hoffman House	Nicholasville	10c	Oct. 14, 1901	Johnson & Co.
8731	Clover	Nicholasville	10c	Oct. 14, 1901	D. S. Waide
8734	Heinz	Nicholasville	15c	Oct. 14, 1901	Jas. M. Johnson ..
8735	Heinz Chutney	Nicholasville	25c	Oct. 14, 1901	Jas. M. Johnson ..
8737	Pure Gold	Nicholasville	10c	Oct. 14, 1901	Robt. Hare
7958	Butler's	Covington	5c	May 16, 1901	G. H. Voss
8717	Snyder's	Lexington .....	...	Oct. 14, 1901	Vogt & Foley
8718	Waldorf	Lexington .....	...	Oct. 14, 1901	Vogt & Foley
8719	Snyder's	Lexington .....	...	Oct. 14, 1901	Curry Tunis & Norwood
8015	Chill Sauce	Covington	15c	May 14, 1901	Geo. Reedy
8794	Worcester Sauce .....	.....	...	.....	.....

TOMATO CATSUP—Found Adulterated.

Manufacturer or Producer.	Antiseptic.	Color.	Label, If Any.	Remarks.
Buch & Batton	Benzoic acid .....	.....	None	
Maple Leaf Packing Co. ..	" " .....	.....	" .....
Tip Top Ketchup Co.	Salicylic acid .....	.....	" .....	Trace antiseptic.
.....	Benzoic acid .....	.....	" .....	Trace salicylic acid.
Exley, Watkins & Co.	" "	Aniline	"	
Ivory Canning Co.	" "	"	"	
W. M. Spencer & Son	Sulphites	"	"	
Ky. Pickling Co.	Benzoic acid	"	"	
.....	" "	"	"	
Wilhojte, Barret & Co.	" "	"	"	
Williams Bros. & Charbonneau	" "	"	"	
E. G. Daily & Co.	Benz. & bor. acids.	"	"	
Knadler & Lucas	Salicylic acid	"	"	
M. Kahn & Co.	Benzoic acid	"	"	
Gast & Croffts	" "	"	"	
Price & Lucas	" "	"	"	
Tip Top Co.	None found	"	"	
Ontario Preserving Co.	Benzoic acid	"	"	
Cruikshank Co.	" "	"	"	
Lippincott & Cree	" "	"	"	
Standard Packing Co.	" "	"	"	
Williams Bros. & Charbonneau	" "	"	"	
Gast & Strosler	" "	"	"	
Lutz & Schramm	" "	"	"	
Maple Leaf Packing Co. ...	" "	"	"	
N. Sibal	" "	"	"	
H. J. Heinz	" "	"	"	
M. Kahn & Co.	" "	"	"	
Hyman Pickle Co.	" "	"	"	
Standard Packing Co.	" "	"	"	
.....	Salicylic acid .....	.....	" .....
Price & Lucas	Benzoic acid .....	.....	" .....	"In stock 8 yrs;" seller stated. Sample very old.
Ed. L. Meyer	" "	Aniline	"	
Van Camp Packing Co.	" "	"	"	
Tip Top Co.	Saccharine.	"	"	
H. J. Heinz & Co.	Benzoic acid	"	"	
.....	" "	"	"	
J. Wells Co.	" "	"	"	
Flach Bros. Gro. Co.	" "	"	"	
H. J. Heinz & Co.	" "	"	"	
H. J. Heinz & Co.	" "	"	"	
New London Canning Co....	" "	"	"	
Tip Top Co.	None	"	"	
Snyder Co.	Benzoic acid	"	"	
Williams Bros. & Charbonneau	Benzoic acid 49%..	"	"	
Snyder	" "	"	"	
Lippincott & Cree	" "	"	"	
.....	

VINEGARS—Found Adulterated.

Station No.	Represented to be.	Where Obtained.	Date of Collection.	From Whom Obtained.
6218	Extra pure vinegar...	Maysville	Dec. 15, 1899	C. C. Calhoun
6219	Apple vinegar	"	Dec. 15, 1899	Ed. Richeson
6319	P. & C. pure vinegar.	Lexington	Dec. 6, 1900	Jno. Hutchison
7211	Apple vinegar	Elizabethtown	Dec. 20, 1900	Davis & Williams
7836	Vinegar	"	March 7, 1901	Reed & Bro.
7986	Cider vinegar	Covington	May 14, 1901	D. Porter
8004	Apple vinegar	"	May 14, 1901	Jno. Dalheim
8012	Apple vinegar	"	May 14, 1901	M. L. Young
8021	Cider vinegar	Newport	May 14, 1901	H. Voss, Meyer & Bro.
8081	Cider vinegar	Owensboro	May 10, 1901	Frank Meis & Bro.
8084	Fruit vinegar	"	May 11, 1901	D. T. Haley
8083	Fruit vinegar	"	May 11, 1901	Winter Bros. & Birx
8088	Apple vinegar	"	May 13, 1901	W. L. Brown
8095	Cider vinegar	"	May 13, 1901	A. B. Thompson & Co.
8096	Cider vinegar	"	May 13, 1901	E. F. Sturgeon
8100	Cider vinegar	"	May 14, 1901	McCann & Jones
8105	Cider vinegar	"	May 14, 1901	L. A. Nunn
8420	Apple vinegar	Louisville	July 30, 1901	Wolff & Sons
8423	Fruit vinegar	"	July 31, 1900	R. M. Hughes & Co.
8424	Apple vinegar	"	July 31, 1900	R. M. Hughes & Co.
8426	Apple vinegar	"	July 31, 1900	C. W. Adams & Son
8427	Apple vinegar	"	July 31, 1900	C. W. Adams & Son
8428	Apple vinegar	"	Aug. 1, 1901	Lou. Cider & Vin. Works..
8431	Cider vinegar	"	Aug. 1, 1901	Gast & Croffts
8433	Apple vinegar	"	Aug. 1, 1901	Price & Lucas
8555	Cider vinegar	Frankfort	Aug. 24, 1901	George Salender
8655	Cider vinegar	Louisville	Sept. 28, 1901	P. F. Koch

VINEGARS—Not Found Adulterated.

6217	Cider vinegar	Maysville	Dec. 15, 1899	R. B. Lovel
6220	Cider vinegar	"	Dec. 15, 1899	G. W. Geisel
6320	Apple vinegar	Lexington	Dec. 6, 1900	J. C. Berryman
6321	Apple vinegar	"	Dec. 8, 1900	J. W. Parish
6322	Apple vinegar	"	Dec. 13, 1900	Honaker Gro. Co.
7962	Apple vinegar	Covington	May 13, 1901	J. J. Schular
7983	Apple vinegar	"	May 14, 1901	I. H. Seppenheld
8007	Tarragon vinegar ...	"	May 14, 1901	Jno. Evans
8029	Cider vinegar	Newport	May 15, 1901	Great China & Tea Co.
8036	Apple vinegar	"	May 15, 1901	B. H. Kroger
8086	Cider vinegar	Owensboro	May 11, 1901	W. F. Reinhardt
8090	Apple vinegar	"	May 13, 1901	O'Bryan & Lawson
8145	Cider vinegar	Lexington	June 24, 1901	John Hutchison
8429	Apple vinegar	Louisville	Aug. 1, 1901	Lou. Cider & Vin. Works ..
8432	Apple vinegar	"	Aug. 1, 1901	Price & Lucas
8434	Apple vinegar	"	Aug. 1, 1901	Price & Lucas
8536	Apple vinegar	Frankfort	Aug. 23, 1901	Howard & Noonan
8537	Apple vinegar	"	Aug. 23, 1901	Rupert Gro. Co.
8539	Apple vinegar	"	Aug. 23, 1901	M. Ellwanger
8542	Apple vinegar	"	Aug. 23, 1901	J. M. Saffel & Son
8546	Apple vinegar	"	Aug. 23, 1901	N. B. McKinney
8550	Apple vinegar	"	Aug. 23, 1901	J. W. Tichenor
8556	Vinegar	"	Aug. 24, 1901	George Salender
8551	Apple vinegar	"	Aug. 23, 1901	Franklin & Berryman
8790	Cider vinegar	Lexington	Nov. 1, 1901	Jno. Hutchison
8198	Cider vinegar	"	July 16, 1901	J. B. Rogers & Co.
8047	Apple vinegar	Newport	May 13, 1901	E. H. Voss
7975	Apple vinegar	Covington	May 14, 1901	E. J. Goebel
7983	Apple vinegar	Covington	May 14, 1901	G. H. Voss
8018	Apple vinegar	"	"	"

VINEGARS—Found Adulterated.

Manufacturer or Producer.	Analytical Data.					REMARKS.
	Specific Gravity.	Ac. Acid, Per Cent.	Total Sol. Per Cent.	Ash Per Cent.	Color.	
I. F. Heibmeier & Son	1.010	3.42	0.98	0.03	Caramel.	Spirit vinegar.
B. T. Chandler & Co.	1.007	3.54	0.18	0.18	"	" "
Pearson & Clarke	1.007	4.14	0.28	.....	"	" "
Sou. Molasses & Coffee Co. .	1.008	4.15	0.34	0.04	"	" "
Drexler, Heft & Co.	1.007	3.54	0.23	0.04	"	" "
H. Schmidt & Son	1.004	3.12	0.31	0.04	"	" "
.....	1.013	3.78	2.23	0.04	"	" "
Weller Austinburg	1.006	3.66	0.24	0.04	"	" "
J. Weller	1.006	4.14	1.28	0.01	"	" "
May & Schoenfeld	1.009	3.90	0.67	0.10	"	" "
H. L. Koltensky & Son	1.006	3.48	0.23	0.04	"	" "
Lou. Cider & Vin. Works ..	1.007	4.20	0.50	0.11	"	" "
Price & Lucas	1.007	3.66	0.36	0.06	"	" "
Price & Lucas	1.008	4.26	0.44	0.07	"	" "
May & Schoenfeld	1.008	3.66	0.85	0.13	"	" "
L. Fishback	1.006	3.66	0.30	0.05	"	" "
Price & Lucas	1.007	3.84	0.38	0.06	"	" "
Ed. L. Myer & Co.	1.006	3.30	0.17	0.20	"	" "
R. M. Hughes & Co.	1.007	4.26	0.34	0.06	"	" "
R. M. Hughes & Co.	1.006	3.97	0.27	0.03	"	" "
Gast & Croffts	1.004	2.04	0.27	0.04	"	" "
R. M. Hughes & Co.	1.004	3.66	0.34	0.04	"	" "
Lou. Cider & Vin. Works...	1.007	3.78	0.39	0.07	"	" "
Gast & Croffts	1.006	3.66	0.30	0.03	"	" "
Price & Lucas	1.005	3.30	0.23	0.02	"	" "
Red Cross	1.007	3.36	0.39	0.04	"	" "
R. M. Hughes	1.007	4.38	0.25	0.04	"	" "

VINEGARS—Not Found Adulterated.

Flach Bros. Gro. Co.	1.016	4.08	3.20	0.31	Natural....	.....
Flach Bros. Gro. Co.	1.018	4.02	3.09	0.29	"	.....
H. J. Heinz	1.018	4.62	2.81	0.33	"	.....
Morby, Raum & Grogreve ..	1.014	4.02	1.79	0.28	"	.....
H. J. Heinz & Co.	1.018	4.86	2.82	0.33	"	.....
Farm near Covington	1.009	3.48	2.42	0.40	"	.....
Lutz & Schramm	1.017	3.73	3.08	0.31	"	Acetic acid, low.
Tarragon, bottled	1.020	5.82	2.49	0.45	"	Acetic acid, low.
.....	1.018	4.80	2.69	0.35	Q'stionable.	.....
.....	1.016	4.14	2.80	0.26	"	.....
S. R. & J. C. Mott	1.015	3.18	2.90	0.37	"	.....
Hyman Pickle Co.	1.010	4.20	1.30	0.14	"	Acetic acid, low.
H. J. Heinz & Co.	1.017	4.74	2.51	0.31	"	.....
Lou. Cider & Vinegar Works	1.009	4.14	0.80	0.13	Natural ...	.....
Price & Lucas	1.013	9.00	0.12	0.02	"	.....
Price & Lucas	1.020	5.76	2.76	0.23	Q'stionable.	.....
Elko Co.	1.017	4.14	2.71	0.27	Natural. ...	.....
J. Weller Co.	1.016	4.14	2.63	0.19	"	.....
J. Weller Co.	1.017	4.74	2.38	0.26	"	.....
Hirsch Bros. & Co.	1.017	4.50	2.67	0.22	"	.....
Hirsch Bros. & Co.	1.016	4.20	2.38	0.32	"	.....
.....	1.017	4.74	2.58	0.36	"	.....
Own make	1.015	2.76	2.91	0.36	"	.....
Heinz & Co.	1.017	4.80	2.66	0.25	"	Acetic acid, low.
Elko Cider & Vinegar Co...	1.016	4.08	2.50	0.18	"	.....
.....	1.017	5.88	3.31	0.24	"	.....
.....	1.021	5.58	3.35	0.39	"	.....
Williams Bros.	1.017	4.26	2.80	0.22	"	.....
.....	1.018	5.16	2.54	0.30	"	.....

Vinegars marked "questionable" show some change in color with Fuller's Earth.

Chapter 13 of the Acts of 1900.

CIRCULAR OF INFORMATION AND FORM OF GUARANTY.

AN ACT to Amend an Act of the General Assembly of the Commonwealth of Kentucky, Entitled an Act Regulating the Sale of Food, which became a Law June 13, 1898.

Be it enacted by the General Assembly of the Commonwealth of Kentucky:

First. That the statute mentioned in the title of this act and being an act regulating the sale and manufacture of food, which became a law on June 13, 1898, be, and the same is hereby repealed, and in lieu thereof, the following is enacted:

Section 1. It shall be unlawful for any person, persons, or corporation within this State to manufacture for sale, or expose for sale, or have in his or their possession for sale, or to sell any article of food which is adulterated or misbranded within the meaning of this act; and any person, persons or corporation, who shall manufacture for sale, expose for sale, or have in his or their possession for sale, or sell any article of food which is adulterated or misbranded in violation of this act, shall be fined not to exceed one hundred dollars, or be imprisoned for not more than fifty days, or both such fine and imprisonment.

Sec. 2. The term food, as used in this act, shall include every article used for, or entering into the composition of, food or drink of man or domestic animals, except spirituous, vinous or malt liquors.

The term misbranded, as used in this act, shall include every article of food, and every article which enters into the composition of food, the package or label of which shall bear any statement purporting to name any ingredient or substance as not being contained in such article which statement shall be untrue in any particular or any statement purporting to name the substance or substances of which such article is made, which statement shall not give fully the names of all substances contained in such articles in any measurable quantity.

Sec. 3. For the purpose of this Act, an article shall be deemed adulterated:

First. If any substance or substances be mixed or packed with

it so as to reduce or lower or injuriously affect its quality or strength;

Second. If any inferior substance or substances be substituted wholly or in part for the article;

Third. If any valuable constituent of the article has been wholly or in part abstracted;

Fourth. If it be an imitation, or sold under the name of another article; provided that nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine, butterine, or kindred compounds in a separate and distinct form, and in such manner as will advise the consumer of its real character, free from coloration or ingredient that causes it to look like butter;

Fifth. If it is colored, coated, polished or powdered, whereby damage is concealed, or if it is made to appear better or of greater value than it is;

Sixth. If it contains poisonous ingredients which may render such article injurious to the health of the party consuming it, or if it contains any antiseptic or preservative not evident or not known to the purchaser or consumer.

Seventh. If it consists in whole or in part of a diseased, filthy or decomposed or putrid substance, either animal or vegetable, unfit for food, whether manufactured or not, or if it is in any part the product of a diseased animal, or of any animal that has died otherwise than by slaughter.

Eighth. If it be labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or is an imitation either in package or label of another substance of a previously established name.

Provided, That any articles of food which are adulterated or misbranded within the meaning of this act, but which do not contain any added poisonous or deleterious ingredient, may be manufactured or sold if the same shall be plainly labeled "adulterated," or labeled, branded or tagged so as to show the exact character thereof.

Provided further, That nothing in this act shall be so construed as requiring or compelling proprietors or manufacturers or sellers of proprietary foods which contain no unwholesome substances to disclose their trade formulas, except so far as the provisions of this act require to secure freedom from adulteration or imitation, but in the case of baking powders every can or other package shall be

labeled so as to show clearly what acid salt has been used in making the same.

Provided further, That no dealer shall be convicted under the provisions of this act when he can establish a written guaranty of purity in a form approved by the Director of the Kentucky Agricultural Experiment Station, signed by the wholesaler, jobber, manufacturer, or other party from whom he purchased said articles, and provided he establishes that such guarantor or guarantors reside in the State of Kentucky. But said guaranty to afford protection shall contain the full name and address of the party or parties making the sale of such article to such dealer.

Sec. 4. The Director of the Kentucky Agricultural Experiment Station shall make or cause to be made examinations of samples of food manufactured or on sale in Kentucky at such time and place and to such extent as he may determine. He shall also make or cause to be made analyses of all food products which the State Board of Health may suspect of being injurious to health, and of any sample of food furnished by any Commonwealth's, county or city attorney of this Commonwealth. And the said Director may appoint such agent or agents as he may deem necessary, who shall have free access at all reasonable hours for the purpose of examining into places wherein it is suspected any adulterated article of food exists, and such agent or agents upon tendering the market price of such articles, may take from any person, firm or corporation, samples of any articles suspected of being adulterated or misbranded. The Director of said Station is hereby empowered to adopt and fix standards of purity, quality or strength, when such standards are not specified or fixed by statute.

Sec. 5. Whenever any sample shall have been examined and found to be adulterated or misbranded in violation of this act, the Director shall certify the facts to the Commonwealth's attorney of the District, or to the county attorney of the county, or city attorney of any city or town in which the said adulterated or misbranded food product was found; together with a statement of the results of the examination of the said article of food duly authenticated by the analyst under oath and taken before some officer of this Commonwealth authorized to administer an oath having a seal. And it shall be the duty of every prosecuting attorney, county attorney and city attorney to whom the Director of said Station shall report any violation of this act, to cause proceedings to be commenced

against the party so violating the act, and the same prosecuted in manner as required by law.

Sec. 6. Said Station shall make an annual report to the Governor upon adulterated food products, in addition to the reports required by law, which shall not exceed one hundred and fifty pages, and said report may be included in the report which said Station is already authorized by law to make, and such annual reports shall be submitted to the General Assembly at its regular session.

Sec. 7. The said experiment Station may issue at least once a year a bulletin giving the results of all analyses of samples taken under this act, together with the names of the parties from whom the samples were taken; as far as possible, the names of the manufacturers; the number of samples found to be adulterated; the number not found adulterated; and the number of adulterated samples that have been reported by the Station to the different Commonwealth's attorneys, county and city attorneys of the State. The edition of this bulletin shall not be less than ten thousand copies, to be distributed free to citizens of the State who may desire the same, and to other interested persons so long as the edition may last.

Sec. 8. Said Experiment Station shall receive five (\$5.00) dollars for the analyses of each sample taken in accordance with this act, and all necessary expenses in carrying out the provisions of this act, including expenses for procuring samples, expert witnesses attending the grand juries and courts, clerk hire and attorneys' fees; provided the total expenses from all sources shall not exceed in any one year seven thousand five hundred dollars (\$7,500). The Board of Control of said experiment Station shall furnish to the Auditor of Public Accounts an itemized statement of all the expenditures of money made under this act.

The amount of expenditures reported to the Auditor shall be paid by the Commonwealth to the Treasurer of said Experiment Station, upon the written request of the Board of Control of said Experiment Station, and the Auditor for the payment of the same, is directed to draw his warrant upon the Treasurer as is the manner of the payment of other claims against the Commonwealth.

Sec. 9. All fines recovered under this act shall be kept as a separate fund to pay necessary expenses in maintaining same.

Sec. 10. No civil action shall be maintained in any court in this

State on account of any sale or other contract made in violation of this act.

Sec. 11. All acts and parts of acts inconsistent herewith are hereby repealed.

Approved March 17, 1900.

Circular of Information Regarding the Kentucky Pure Food Law.

The Legislature of Kentucky, at its late session, amended the law entitled "An Act Regulating the Sale and Manufacture of Food." The amended act went into effect June 12, 1900.

The provisions are mainly those of the old law. The definitions of adulteration and misbranding remain the same, with the addition of a provision against labels that are calculated to deceive or that represent an article to be imported when it is really of domestic origin. It provides for the sale of adulterated articles or substitutes which contain nothing poisonous or deleterious, if they are labeled adulterated, or if the component parts are stated on the label. It provides that the acid salt of which baking powders are made must be made known on the label. The retailer is protected from prosecution when he has a written guaranty from the party from whom he purchased that the goods are pure, provided he establishes that the guarantor resides in this State. The penalty for violation of the law is a fine of not more than \$100 or imprisonment not to exceed 50 days, or both. It is made the duty of Commonwealth's attorneys, county and city attorneys, to prosecute for violations of the law, upon information obtained by analyses made by the Experiment Station. Attention is called to the fact that the law applies to the adulteration of food of domestic animals as well as that of man.

A copy of the law is furnished herewith. This circular is intended to anticipate many inquiries in regard to the application of its provisions to particular articles of food.

ADULTERATIONS.—The law provides (Sec. 3) that articles of food which are adulterated but which do not contain any added poisonous or deleterious ingredient, may be manufactured or sold if plainly labeled "Adulterated" or labeled, branded or tagged so as to show the exact character thereof. The words "mixture," "com-

pound" or other similar expressions can not be substituted for the word "adulterated" when the components are not given.

ANTISEPTICS.—Salicylic acid, benzoic acid, boracic acid, hydrofluoric acid, sulphurous acid and their compounds, the salicylates, benzoates, fluorides and sulphites; also formaldehyde or formalin, and various mixtures known in the trade as "freezine," "iceine," "preservalines" of various kinds, etc., are antiseptics, and it is unlawful to sell articles of food containing them unless plainly labeled "adulterated" or the presence of the antiseptic and its kind is clearly shown on the label or made known to all purchasers, where the article is not capable of being labeled.

BAKING POWDERS.—The law requires that every can or other package of baking powder shall be labeled so as to show clearly what acid salt has been used in making the same. Baking powders, in which exsiccated alum or sulphate of alumina is used, should be labeled "alum baking powder;" those in which phosphate and alum are used should be labeled "alum phosphate baking powder;" those in which phosphate alone is used should be labeled "phosphate baking powder," and those in which cream of tartar is used "cream of tartar baking powder." If the label already makes known in a conspicuous manner what acid salt has been used, the form is not essential. If the label does not give the name of the acid salt, a printed slip stating what acid salt has been used must be pasted on the label. But in any case the words "alum," "alum-phosphate," "phosphate" or "cream of tartar" must be printed in letters not smaller than brevier heavy **GOTHIC CAPS** and on white or light background so that the words can be easily seen.

BUTTER.—Butter should contain at least 80 per cent. of pure milk fats. Butter made by the use of "black pepsin" or other substance, in order to incorporate large quantities of water and casein, is adulterated.

Where other fats or oils are substituted, in part or whole, for milk fat in butter such article can not be sold as "Butter," or "Creamery Butter," or "Dairy Butter," or any combination of words embracing the word "Butter," but must be classed as "Oleomargarine" or "Butterine" and so plainly labeled.

Process butter or unmarketable butter that has been melted and made over is classed as adulterated butter.

CANDY.—The use of harmful coloring matters or other ingredients, and the admixture of terra alba, kaolin or other mineral substances to give weight and volume to the mass, are adulterations.

CHEESE.—Cheese not made wholly from milk or cream, salt, and harmless coloring matter, is considered adulterated, and must be sold as "Filled Cheese" or the name and amount of the adulterant must be made part of the label. Cheese made from milk from which part of the cream or fat has been taken, must be so labeled as to indicate the amount of cream or fat taken from the milk of which it was made. Cheese containing less than 10 per cent. of fat must be labeled "Skim milk cheese."

CIDER.—Cider is the unfermented juice of the apple. Any substitute for apple juice, or any antiseptic added constitutes an adulteration, and such adulterated cider should not be offered for sale, unless the name of the adulterant is made part of the label.

COFFEE.—Any article offered as coffee which contains any substitute for the coffee bean in any proportion is adulterated, and should not be offered for sale unless the quantity and kind of such substitute is given as part of the label.

CREAM.—Cream shall be produced wholly from pure milk and free from added coloring matter, preservatives or other additions of any kind. It must contain not less than 15 per cent. of milk fat.

FLOUR.—Flour is the fine and bolted meal of the wheat grain. When mixed with any material not derived from the wheat grain it is adulterated, and can not lawfully be sold unless plainly marked "adulterated" or the kind and amount of the admixture is made a part of the label.

Buckwheat flour or rye flour must be derived wholly from the grains designated in the name, and any admixture of other flours or materials constitutes an adulteration, and such mixtures can not be lawfully sold unless plainly marked "adulterated," or the kind and amount of the admixture is made part of the label.

FRUIT JELLIES, FRUIT BUTTERS, PRESERVES, CANNED FRUITS, FRUIT CONSERVES, CONFECTIONS, FRUIT JUICES AND SYRUPS, ETC., must consist of the fruit specified in the label, preserved only with cane sugar (sucrose), and must not contain artificial flavors, coloring matters or antiseptics. If such articles contain any substitute for the fruit, or any inferior material to make up bulk or weight, any glucose or other substitute for sugar, any artificial flavor or color, any starch or animal gelatine, any salicylic acid or other antiseptic, or any substance not naturally occurring in such fruits, except spices or other wholesome, natural flavoring materials, they are adulterated, and can not be lawfully sold unless plainly labeled

"adulterated," or the presence of all such substances is clearly indicated by the label.

Fruit preserves, jams, marmalades and butters should not contain less than 80 per cent. of total solids, 1 per cent. of acid calculated as malic, and 0.6 per cent. of ash; jellies should not contain less than 65 per cent. total solids, 1 per cent. of acid calculated as malic and 0.3 per cent. of ash.

GUARANTY OF PURITY.—Attention is called to the provision of section 3, sub-section 8, "that no dealer shall be convicted under the provisions of this act when he can establish a written guaranty of purity in a form approved by the Director of the Kentucky Agricultural Experiment Station, signed by the wholesaler, jobber, manufacturer or other party from whom he purchased said article, and provided that he establishes that such guarantor or guarantors reside in the State of Kentucky. But such guaranty, to afford protection, shall contain the full name and address of the party or parties making the sale of such article to such dealer."

HONEY.—Honey is the nectar of flowers and other saccharine exudations of plants gathered by bees. Honey made by feeding bees glucose, sugar, invert sugar, or other saccharine substance, is not pure honey. Adding sugar, invert sugar or glucose to honey or substituting these materials for honey constitutes an adulteration and such adulterated honey can not lawfully be sold unless it is plainly marked "adulterated," or the quantity and name of the adulterant is made part of the label.

LABELING.—In labeling articles to comply with the law each separate package must be labeled. For example, it will not answer to attach to a case of catsup a label stating that it is preserved with benzoate of soda, but each bottle must bear such label.

LARD.—Lard is the fat of swine, the fat being melted and separated from the flesh. Adding beef fat or stearine, cotton seed oil, or other substitute for swine fat constitutes an adulteration, and such adulterated lard can not lawfully be sold unless it is plainly marked "adulterated," or the quantity and name of the adulterant is made part of the label. Lard must contain not less than 99 per cent. of fat.

MILK.—Milk must contain at least 12 per cent. of total solids and 3 per cent. of fat. Milk containing less than these proportions will be considered adulterated, unless labeled or offered as "skim milk," or milk below standard. The addition of antiseptics or preservatives or coloring matter is an adulteration.

MILK FAT is the fat contained in pure milk or derived therefrom and has a Reichert-Meissl number not less than 24 and a specific gravity not below .905 at 40°c.

MINCE MEAT containing glucose or any inferior material added for the purpose of increasing weight or bulk, or any antiseptic, is adulterated and should not be offered for sale unless plainly marked "adulterated" or its component parts given.

MOLASSES AND SYRUPS.—All molasses and syrups are assumed to be made from the juice of cane, or other sugar-producing plant, or the sap of the maple tree, and any syrup or molasses containing starch-sugar, glucose, or corn-syrup, is considered adulterated, and should not be offered for sale unless the label indicates the presence of the same.

OLEOMARGARINE.—Oleomargarine, butterine, or kindred compounds, or mixtures of these with butter, can not lawfully be sold if colored in imitation of butter. The law does not prohibit the sale of oleomargarine, as such, if not colored to look like butter.

OLIVE OIL is the expressed oil of the olive. The substitution of other oils or fats for olive oil, either in part or whole, constitutes an adulteration, and such adulterated oil can not lawfully be offered for sale unless plainly labeled "adulterated," or amount and kind of the adulterant is clearly shown on the label.

SPICES, MUSTARD, PEPPER, etc., must not contain any foreign substances or coloring matter introduced to dilute or cheapen the article, and any such admixture constitutes an adulteration and can not lawfully be sold unless plainly labeled "adulterated," or the kind and amount of admixture are indicated on the label.

TEA.—Tea consists of the dried leaves of the true tea plant, without addition of artificial coloring matter, or filler, or extraction of any essential properties, and any article offered as tea which does not conform to this definition is adulterated and can not lawfully be offered for sale unless plainly labeled "adulterated," or its true composition is given as part of the label.

VINEGAR.—Standard vinegar is a vinegar made from the juice of the apple, and contains not less than 1½ per cent. of apple solids and 4 per cent. of acetic acid. All vinegars labeled "apple," "cider," or "orchard" vinegars are assumed under the law to be standard vinegars. Vinegars not made of the juice of the apple must be labeled truly of what they are made, as "malt vinegar," "distilled vinegar," or "wine vinegar." Otherwise they are to be con-

sidered adulterated. If artificial coloring matter is used, this must be stated on each and every label. Vinegars to which other acids than acetic acid have been added are adulterated.

Vinegars containing less than 4 per cent. of acetic acid may be sold, provided the percentage of acetic acid is made part of the label.

M. A. SCOVELL,

Director Kentucky Agricultural Experiment Station,

July 19, 1900.

Lexington, Ky.

Form of Pure Food Guaranty.

APPROVED BY M. A. SCOVELL, DIRECTOR.

I, (*or, we*), the undersigned, resident.. of the Commonwealth of Kentucky, whose name.. and Postoffice address.. are hereto subscribed, being the (a).....of the article.. hereinafter described, and being the person from whom (b).....ofKentucky, purchased said article.., hereby undertake.. and obligate.. (c).....unto (b)..... the aforesaid purchaser, that said article.. is (*or, are*) pure within the meaning of that term as used, applied and defined in the Statute law of Kentucky, known as the Pure Food Law.

The said article.. above referred to is (*or, are*) described as follows: (d).....

(Name) (e).....

(P. O. Address) (e).....

(Name)

(Name)

(P. O. Address)

(P. O. Address)

a.—Insert "Wholesaler," "Jobber," "Manufacturer" or other word or words aptly describing the party from whom the article or articles in question were purchased.

b.—Insert name and address of the dealer for whom the guaranty is given.

c.—The singular or plural forms should be used throughout according as the guarantors are one or more in number.

d.—Describe the articles clearly and explicitly.

e.—Write out name and Postoffice address *in full*.

Lexington, Ky., September 1, 1901.