

# Indiana State Board of Health

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The MONTHLY BULLETIN will be sent to all health officers and deputies in the State. Health officers and deputies should carefully read and file each copy for future reference. This is very important, for we expect to print instructions, rules and general information, which it will be necessary for officers to preserve.

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## SEPTEMBER BIRTHS.

Birth reports are always a month late, because the law gives twenty days in which doctors and midwives may report.

Total births, 4,728. Males, 2,345; females, 2,260; stillbirths, 123.

White males, 2,302; white females, 2,222.

Colored males, 43; colored females, 36.

White stillbirths, 121; colored stillbirths, 2.

Excess of birth rate over death rate, 8.0.

Highest birth rate in Jackson County, 38.8, with Warren second, 37.7.

Lowest birth rate, Fulton, 7.6.

## ABSTRACT OF MORTALITY STATISTICS FOR OCTOBER, 1910.

Total number of deaths, 2,761; rate, 11.5. In the same month last year, 2,813 deaths; rate, 12.2. In the preceding month, 2,870; rate, 12.4. Deaths by important ages were: Under 1 year, 500, or 18.1 per cent. of the total; 1 to 5, 214; 5-10, 72; 10-15, 50; 15-20, 81; 65 and over, 754, or 27.3 per cent. of the total.

**SANITARY SECTIONS:** THE NORTHERN SANITARY SECTION, population 954,042, reports 932 deaths; rate, 11.5. In the same month last year, 941 deaths; rate, 12.0. In the preceding month, 1,103 deaths; rate, 14.1.

CENTRAL SANITARY SECTION, population 1,143,900, reports 1,116 deaths; rate, 11.5. In the corresponding month last year, 1,176 deaths; rate, 12.7. In the preceding month, 1,175 deaths; rate, 12.5.

SOUTHERN SANITARY SECTION, population 722,147, reports 713 deaths; rate, 11.6. In the same month last year, 714 deaths; rate, 11.6. In the preceding month, 592 deaths; rate, 9.9.

**REVIEW OF SECTIONS:** An interesting fact is to be noted, in that the sections have almost the same death rate, the Southern having a rate .1 higher per thousand than the other two sections and they have exactly the same rate. This never happened before. The Southern section shows the highest tuberculosis death rate; also the highest rate for typhoid, diphtheria, measles, whooping cough, diarrheal diseases and influenza. The highest cancer rate was in the Central section. One death from rabies in Cass County.

**CITIES:** Total population, 1,149,608, report 1,330 deaths; rate, 13.6. In the same month last year, 1,364 deaths; rate, 14.3. The city rate is 2.1 higher than the rate for the whole State. The death rates of cities having over 25,000 population were: Indianapolis, 14.0; Evansville, 13.5; Fort Wayne, 12.3; Terre Haute, 12.9; South Bend, 18.6; Muncie, 10.5; Anderson, 5.2; Marion, 8.4.

**COUNTRY:** Population, 1,670,927, reports 1,431 deaths; rate, 10.1. This is 1.4 lower than the rate for the whole State, and 3.5 lower than the city death rate. All the infectious diseases present a lower death rate for the country than for the city.

## SUMMARY OF MORBIDITY AND MORTALITY FOR OCTOBER, 1910.

Typhoid fever was reported as the most prevalent infectious disease—75 per cent. of observers had to deal with this disease. The following was the order of prevalence: Typhoid fever, tonsillitis, bronchitis, rheumatism, diphtheria and membranous croup, scarlet fever, pulmonary tuberculosis, influenza, diarrhea, malarial fever, bronchial pneumonia, dysentery, intermittent and remittent fever, other forms of tuberculosis, cholera morbus, measles, lobar pneumonia, cholera infantum, whooping cough, inflammation of bowels, chickenpox, erysipelas, cerebro-spinal meningitis, smallpox, poliomyelitis, puerperal fever.

Poliomyelitis has become almost epidemic in the State, having appeared in 16 counties. Deaths from this disease occurred in the following counties: Cass County, 2; Elkhart, 1; Grant, 1; Huntington, 1; Miami, 1; Pulaski, 1; Stark, 1; Steuben, 2; Tippecanoe, 1. One death from hydrophobia in Cass County.

**SMALLPOX:** Two cases reported in two counties, with no deaths. Counties reporting smallpox were: DeKalb 1 case; Wayne, 1 case. In the same month last year, 6 cases reported in three counties, with no deaths.

**TUBERCULOSIS:** Three hundred and twenty-six deaths, males 159, females 167. In the same month last year, 307 deaths, males, 153; females, 154. Of the males in age period 18 to 40, 29 were married and left 61 orphans under 12 years of age. Of the females, 55 were married and left 111 orphans in same age period. Total orphans made in the month, 172. Number of homes invaded, 297.

**PNEUMONIA:** One hundred and forty-three deaths; males, 76; females, 67. In the same month last year, 72 deaths, 33 males and 39 females. Sixty-one deaths were under 1 year of age; 19, 1-4, and 39 were over 50 years of age.

**TYPHOID FEVER:** Seven hundred and one cases in 78 counties, with 159 deaths. In the same month last year, 478 cases in 75 counties, with 155 deaths.

**DIPHThERIA:** Four hundred and forty-one cases in 52 counties, with 46 deaths. In the same month last year, 439 cases in 61 counties, with 155 deaths.

**VIOLENCE:** Deaths from violence numbered 182, rate 76.1. In the same month last year, 190 deaths; rate, 82.0. Murders numbered 8; males, 7; females, 1. Suicides, 34; males, 27; females, 7. Accidental deaths, 139; males, 103; females, 36. Of the suicides, 12 chose gunshots, 2 artificial gas, 2 drowning, 4 hanging, 5 carbolic acid, 2 opium, 3

strychnine, 3 other poisons, 1 cutting throat. Of the accidental deaths, railroads caused 32, interurbans, 5; street-cars, 1; automobiles, 2; horses and vehicles, 7; crushing injuries, 19; machinery, 3; mines, 3; electricity, 4; falls, 17; burns and scalds, 17; drowning, 4; gunshots, 7; suffocation and asphyxiation, 8; and the remainder by various means.

## REPORT OF BACTERIOLOGICAL LABORATORY FOR OCTOBER, 1910.

J. P. SIMONDS, Superintendent.

Sputum for tubercle bacilli, positive 66, negative 189; throat cultures for diphtheria, positive 173, negative 477; blood for Widal reaction, positive 24, negative 193; blood for malaria, positive 7, negative 21; blood cultures for typhoid, positive 3, negative 3; blood smears, 10; milk, 7; feces, 4; pus, 6; water, 7; cerebro-spinal fluid, 1; urine, 33; cabbage worm, 1; for rabies, dogs' brains, positive 5, negative 6, cow's head, positive 1, cat's head, negative 1, hog's head, negative 1; carcinoma, 5; sarcoma, 3; tuberculous tissue, 1; miscellaneous pathological tissues, 17; for gonorrhoea, males, positive 17, negative 11; females, positive 3, negative 9. Total, 1,305.

Outfits sent out: Sputum, 332; diphtheria, 839; Widal, 308; malaria, 45; special, 75. Total, 1,599.

This report completes one year since the last annual report was compiled. During this time the work of the laboratory has shown a notable increase over any previous year. Altogether 10,091 specimens have been examined during the past twelve months. This is an increase of 2,004 over the largest number examined in any previous year. The specimens are classified in the following table:

Sputum .....	3,838
Throat cultures.....	2,288
Widal reaction.....	1,621
Suspected malaria.....	217
Pathological tissues.....	335
Brains of animals for rabies.....	148
Suspected gonorrhoea.....	470
Miscellaneous .....	1,174
Totals .....	10,091

## RABIES

Agitation for an ordinance requiring the muzzling of dogs was begun in England in 1885. In 1890 and 1891, Mr. Chaplin was President of the Board of Agriculture and had charge of enforcing the ordinance. He vacillated between a demand for effective muzzling in all parts of the kingdom and a temporizing policy of requiring all dogs to wear collars. The fol-

lowing verses appeared in London Punch in 1891, and were accompanied by a picture of a handsome St. Bernard dog pleading with Mr. Chaplin in the presence of the aristocratic "old woman there with her spoilt and yelping pet:"

#### CANINE CONFIDENCES.

Potterer, put the muzzle on! Potterer, take it off again!  
That is not the way, my friend, cruel rabies to restrain.

Take my tip!

As to self-styled "friends of dogs," too preposterous by half,  
Who object to all restraint, they deserve on seat or calf  
One sharp nip.

It is doggish interest, hydrophobia to stamp out;  
'Tis a curse to us canines, that no person can well doubt

Who has sense.

They who think we doggies share old maids' sentimental fad,  
Just as though it were a dog's privilege to go mad,  
Must be dense.

Muzzles are a bore, of course, rather troublesome at times.  
But I'd rather have my nose made incapable of crimes

Than go free.

With the chance of "going off," giving friend or foe a bite.  
To be clubbed to death or shot, murdered in my master's  
sight.

Don't suit me.

Never mind the fuzzy trumps, the old women of each sex;  
Better raise their wrath than the prudent public vex,

With crass rules.

Muzzles now, and collars then, partial orders soon relaxed;  
Men rebel when with caprice they are tied, or teased, or  
taxed.

Else they're fools.

Keep the muzzles on a year, regularly, and all around;  
Every doggy of high breed, mongrel puppy, whelp, or hound,  
Will give thanks.

To the minister who tries hydrophobia to stamp out  
Once for all o'er all the land, with consistency, and without  
Pottering pranks.

Mr. Chaplin, take my tip! Science speaks in the same sense.  
So does true philanthropy. Ought to have effect immense.  
What they say.

Heed not that old woman there, with her spoilt and yelping  
pet;

For every doggy of us in the whole country speak, you bet.  
Try! Good day!

The temporizing policy was not successful in stamping out rabies. When, in 1895, it was determined to "keep the muzzles on a year, regularly, and all around," the disease was easily eradicated, as is shown by the following figures: In Great Britain, in 1887, there were 217 cases of rabies in dogs; in 1888, 160; in 1889, 312 cases. The increase caused alarm and muzzling was more or less thoroughly enforced, with the result that in 1890 there were 129 cases; in 1891, 79; and in 1892, 38 cases. Opposition to muzzling arose and the ordinance was replaced by one requiring dog collars to be worn. In 1893 there were 93 cases; in 1894, 248 cases, and in 1895, 672 cases. The

muzzling ordinance was again enforced and in 1896 there were 438 cases; in 1897, 151 cases; in 1898, 17 cases; in 1899, 9 cases, and in 1900 none. An additional safeguard was introduced when Parliament passed a law requiring the dogs brought into Great Britain from other countries to be kept in quarantine for six months. Since that time rabies has been practically unknown throughout Great Britain, and last year, when in one of the medical schools it was desired to show the students the Negri bodies in the brain of a dog suffering from rabies, the material had to be imported from New York. There was no dog in the entire country of Great Britain that could supply the infected brain.

#### STATISTICAL DEPARTMENT—REGISTRATION OF BIRTHS.

(BY CHARLES A. CARTER, M. D., VITAL STATISTICIAN.)

The record of the birth of a child must be made by some other person. The child is incapable of protecting its future interests at the proper time, and some of its most valuable rights and privileges may be placed in jeopardy or entirely lost if the registration of its birth is neglected by those upon whom it is dependent.

One of the important duties of a health officer is to have the birth of each child properly registered. It is his duty to see that each item called for by the certificate is filled out completely with unfading ink. If a certificate of birth is received with any of the items omitted, the physician or midwife in attendance should be asked to supply them.

One of the important items often omitted is the place of birth. Place of birth means the county, township, village or city. If in a city, the street number and ward should be given. If the birth occurs in a hospital or institution, the name of the same should be given instead of the street and number. It is impossible for the State Board of Health to tell where a birth occurs unless these items are complete. It often happens that a birth will occur away from the residence of the parents. The place of birth cannot be inferred from the residence of the parents. If the child has been named at the time of filing the report, its full name should be given. If the name has not been selected, the space for *full name of child* should be left entirely blank, which can be filled out subsequently by a supplemental report. Don't write "baby" Smith or "infant" Jones, or "not named yet."

If the child dies without a name before the certificate is filled, enter the words *died unnamed*. In case of a stillborn child or one dead at birth the certificate should contain in place of the *full name of child* the word *stillbirth*.

Each certificate should be numbered, beginning with *number one* for the first birth in each calendar year.

All health officers are required by law to keep a record book containing all the items called for by a certificate of birth. The record is not complete when any of the items are omitted. An examination of some of the certificates received by the State Board of Health shows that health officers too frequently overlook this important matter.

### NEEDLESSLY BLIND.

Statistics show that there are 60,000 blind persons in the United States, one-third of whom are blind from a disease which is easily prevented. In Indiana there are approximately 2,500 blind persons, of whom 800 are blind from this disease. Consider what these blind persons are losing and have lost as the result of their disability. There is nothing more precious than eyesight. Reduced to its value as compared to a human life, the loss of eyesight in both eyes is equivalent to the value of a human life, for accident insurance companies pay the full value of any accident policy to its holder if accident deprives him or her of eyesight. A pair of eyes is equal to the life value of the possessor thereof.

This disease further causes seventy-two per cent. of all blindness in children under one year of age and has been denominated by one writer as "a veritable world plague."

*Children and adults blind from this disease need never to have been blind.*

The disease causing all this trouble is called by the doctors "ophthalmia neonatorum," or the sore eyes of new-born babies.

It usually manifests itself a few hours after birth and matter is seen coming from between the eyelids. When left to itself it very soon causes loss if not destruction of eyesight in every baby thus afflicted.

*It can be prevented.*

*How?*

By having the doctors upon the birth of the baby's head and cleansing thereof, to drop into each eye a one per cent. solution of a medicine called nitrate of silver. So well informed are the mothers of the State of Connecticut, that they demand that the doctor use the "drops" in each and every baby's eyes when born. To be successful the medicine must be used in every baby's eyes.

*It can do no harm.*

*The refusal to have it used may fill a life of a mother full of regret because it was not used.*

Suppose the disease develops in spite of the above precautions:

Call a doctor right away.

*Never use a poultice or mothers' milk or any other suggestion from well-meaning but uninformed neighbors and friends.*

In a subsequent publication we will tell what the

doctor ought to do in case the disease develops.—Dr. Geo. Keiper.

### SCARLET FEVER QUARANTINE.

We have received a very pathetic letter from a good woman in Knox County who has had a fearful experience with scarlet fever, and her story raises the question: How long shall scarlet fever be quarantined? It also raises another question: Shall we neglect and pass over mild cases of scarlet fever? The lady writes as follows:

"Is there a law concerning the length of quarantine of cases of scarlet fever? If there is, please send it to me, for I wish to publish the same, and I will tell you why.

"Eighteen years ago I had two bright children, a girl four years, and a boy two. My sister's children had scarlet fever on the 20th of June, and the 23d of July came to visit at my home. On July 26 my son took scarlet fever and in five days was dead. On July 29 my daughter took the fever, and while she lived, it left her afflicted for life. Now at twenty-two years of age she is defective, and as a sequel of the fever cannot talk plainly. The children at school have laughed at her pronunciation and made her life miserable, filling her existence with anguish. She is handicapped for life, all because a physician did not know about scarlet fever, or did not perform his duty. My sister's children, from whom my children got the disease, had all been attacked very lightly. They were sick only for a day or two, and there was very little rash. I have not told all my story, for two years after this scourge visited my family another child was born to me, which lived to be three years old. There were some more cases of scarlet fever or scarlatina in the neighborhood and the doctors said: 'Oh, they are mild cases and there is no danger from them,' and the quarantine was not established. My last little daughter took the disease in a severe form and died. My record, therefore, with scarlet fever is two dead children and one physically ruined for life. Do you wonder that I am interested in this disease, and that my sorrow should impel me to write and investigate? I have repeatedly seen scarlet fever patients turned out within ten days of the first symptoms of the disease, and have seen no quarantine established. Please let me know as to the length of quarantine of scarlet fever and any information you can give to me about the horrible disease, and you will receive the lasting gratitude of one mother who knows what scarlet fever can do. It is not for my benefit that I ask this information, for I suppose this disease has done all it can do for us, but I desire to use the information and to do with it what good I can. I shall hold physicians responsible in a large measure for the sorrow and loss which I believe have unnecessarily come to me."

We told this good woman that the Indiana health law does not prescribe a definite period of quarantine for infectious diseases, but gives power to the health officer to "establish quarantine in such manner and for such time as may be necessary to prevent the spread of infection." Obviously all cases are not of the same virulence and not of the same duration. It is reasonable, therefore, to recognize and act upon this fact in the matter of quarantine. The good mother has our fullest sympathy and we agree with her that a better administration and enforcement of health laws might have prevented scarlet fever from entering her home. She now knows that cases of mild scarlet fever may transmit the disease in virulent form, and let us hope that more physicians will learn this truth, and also act accordingly.

J. W. Downey, Shelby County, called May 20, 1908, and asked for a transcript of the death certificate of Jno. W. Rawlings, who died April 14, 1900. Wanted it because Mr. Downey had purchased land from Rawlings and it came up afterward there was a doubt of his age at the time he transferred the land just before death. It was found by the records he was almost 23 years old.

MEDICAL INSPECTION OF 900 CHILDREN, AGES SIX TO SIXTEEN, AT PRINCETON, INDIANA.

GRADE.	Number Examined.	Without Defects.	Having Defects.	Enlarged Glands.	Defective Vision.	Defective Hearing.
First.....	148	66	82	7	8	13
Second.....	111	33	73	0	24	5
Third.....	127	43	81	3	22	9
Fourth.....	118	39	83	2	33	12
Fifth.....	129	45	84	0	35	5
Sixth.....	102	33	69	3	20	12
Seventh.....	87	34	53	0	18	6
Eighth.....	77	34	43	1	11	4
Total.....	900	332	568	18	171	66

GRADE.	Nasal Defects.	Adenoids.	Hypertrophied Tonsils.	Other Defects.
First.....	7	22	50	22
Second.....	13	24	34	16
Third.....	8	16	45	12
Fourth.....	13	14	32	15
Fifth.....	15	8	41	12
Sixth.....	6	14	39	6
Seventh.....	9	11	20	5
Eighth.....	12	1	23	2
Total.....	83	110	283	90

Total examined..... 900  
 Total sick or defective..... 548  
 Total well children..... 352  
 Per cent. sick or defective..... 63 1/2%

REPORT OF THE DEPARTMENT OF FOOD AND DRUGS, INDIANA STATE BOARD OF HEALTH, FOR OCTOBER, 1910.

H. E. BARNARD, STATE FOOD AND DRUG COMMISSIONER.

But 4 of the 70 samples of foods analyzed during the month of October were found to be adulterated. This is the smallest number and the lowest percentage

of adulterated samples noted since the passage of the Pure Food Law, and illustrates well the increasing difficulty of finding impure goods on the market. The inspectors report that it is only occasionally they find even articles which they have reason to suspect of being impure, and the results of this month's work show that even in such cases the percentage is very low. Of the 36 beverages analyzed but one was illegal. Of the 20 milk samples examined one was illegal. Such miscellaneous products as candy, cheese, honey, vinegar, etc., showed no evidence of adulteration. The percentage of adulteration in the drug samples was, however, much larger, 13 of the 29 samples examined being illegal. Eight of the 10 samples of spirits of camphor contained less than the required amount of camphor gum. Three of the 4 tincture of opiums were either low in alkaloidal content or failed to declare the presence of morphine on the label of the package.

REPORT OF ANALYSES OF FOOD AND DRUGS.

The following summary presents the results of the examination of food and drugs during the month of October, 1910:

ARTICLE EXAMINED.	Number Legal.	Number Illegal.	Total.
FOODS.			
Beverages.....	35	1	36
Candy.....	1	0	1
Canning Compound.....	3	0	3
Cheese.....	1	0	1
Corn.....	1	0	1
Honey.....	1	0	1
Milk products—Milk.....	19	1	20
Butter.....	0	2	2
Mince meat pie.....	1	0	1
Sugar butter.....	1	0	1
Vinegar, cider.....	3	0	3
Total.....	66	4	70
DRUGS.			
Bismuth subnitrate.....	1	0	1
Castoria.....	1	0	1
Flavoring extracts, lemon.....	4	0	4
Olive oil.....	3	0	3
Spirits of camphor.....	2	8	10
Stomach contents.....	0	1	1
Tincture of arnica.....	0	1	1
Tincture of opium.....	1	3	4
Tincture of opium deodorized.....	2	0	2
White wax.....	1	0	1
Total.....	16	13	29

INSPECTORS' REPORTS FOR THE MONTH OF OCTOBER, 1910.

Nine hundred and twenty-two sanitary inspections were made during the month, and of this number 575 establishments were reported to be in good condition. This is an excellent record and shows a marked improvement over the results of earlier inspection work. Two hundred and sixty-four places were rated as fair, 59 were poor and but 5 bad, while 19 establishments were classed as excellent. Three of the 5 bad places were restaurants, 120 of which were examined; 52 were in good condition, 53 were fair, 11 poor and but one could be classed as excellent. Thirteen of the 16 dairies visited were graded as poor, but one was good and 2 were rated as fair. This condition differs but little from that reported every month and places the dairies as the

most unclean and unsanitary establishments devoted to the production of food. Since milk is utilized as food by more people and more constantly than any other article, and since it is the chief food for those in the extremes of life it should be produced and handled with the greatest care. On the contrary it appears that but one dairyman in 16 can even claim that his stables are in good condition, while the chances that the milk consumer is getting milk from an unsanitary dairy, if based upon the report of this month's inspection, are 13 to 3.

Eighty-seven of the 149 meat markets examined were in good condition; 235 of the 360 grocery stores were graded as good, 99 as fair, 16 as poor and 10 as excellent. Of the 100 drug stores visited, 84 were rated good, 14 fair and 1 poor and but 1 excellent. Of the 113 bakeries and confectioneries visited 5 were in excellent condition, 77 good, 26 fair, 4 poor and 1 bad. In addition to this list, visits were made to creameries, slaughter houses, poultry houses, fish markets, ice cream parlors and factories, bottling works, flour mills, canning factories, pie factories, etc. Most of these places are rated either as good or fair, although 3 of the 6 slaughter houses were placed in the same unsanitary class.

During the month 21 condemnation notices were served upon the proprietors of unsanitary buildings. Thirteen of the buildings were condemned because of unsanitary conditions and 8 because of improper construction.

Eight prosecutions were brought during the month for violation of the food, drug and sanitary food laws, and in every case a conviction was obtained. The fines and costs imposed amounted to \$221.70. One case was filed against a dealer for spitting on the floor. A dairyman was fined for operating an unsanitary dairy. Two cases were brought

against bottlers who sold soft drinks containing saccharin and benzoic acid. A druggist plead guilty on two counts for failing to declare the alcohol content in his preparations. Two dealers were prosecuted for selling as temperance beer a beverage which was in fact a genuine beer containing the usual amount of alcohol.

SUMMARY OF INSPECTIONS DURING THE MONTH OF OCTOBER, 1910.

INSPECTIONS.	No. Inspected.	No. Excellent.	No. Good.	No. Fair.	No. Poor.	Bad.
Dairies.....	16	0	1	2	13	0
Grocery stores.....	360	10	235	99	16	0
Meat markets.....	149	2	87	52	8	0
Drug stores.....	100	1	84	14	1	0
Bakeries and confectioneries.....	113	5	77	26	4	1
Hotels and restaurants.....	120	1	53	53	11	3
Creameries.....	6	0	6	0	0	0
Wholesale groceries.....	2	0	2	0	0	0
Slaughter houses.....	6	0	3	0	3	0
Poultry houses.....	6	0	1	3	2	0
Fish markets.....	6	0	3	3	0	0
Ice cream parlors.....	9	0	5	4	0	0
Ice cream factories.....	3	0	2	1	0	0
Bottling works.....	5	0	1	2	1	1
Flour mills.....	6	0	6	0	0	0
Fruit stands.....	3	0	2	1	0	0
Canning houses.....	2	0	2	0	0	0
Canning factories.....	1	0	0	1	0	0
Brewing companies.....	3	0	1	2	0	0
Produce company.....	1	0	1	0	0	0
Pretzel factory.....	1	0	1	0	0	0
Ice plant.....	1	0	1	0	0	0
Wholesale confectionery.....	1	0	1	0	0	0
Starch and glucose works.....	1	0	1	0	0	0
Pie factory.....	1	0	0	1	0	0
Total.....	922	19	575	264	59	5

LIST OF PROSECUTIONS DURING THE MONTH OF OCTOBER, 1910.

COUNTY.	Lab. No.	Name and Address of Defendant.	Why Prosecuted.	Date of Trial.	Final Disposition.
Carroll.....		Frank Crone, Delphi.....	Exportating on floor.....	10-26-10	\$10 and costs.
Kosciusko.....		Oliver Michay, Warsaw.....	Dairy, unsanitary conditions.....	10-13-10	\$10 and costs.
Vanderburgh.....	19140	J. Vogel & Sons, Evansville.....	Soft drinks containing saccharin.....	10-19-10	\$25 and costs.
Vanderburgh.....	19152	Mt. Valley Bottling Works, Evansville.....	Soft drinks containing saccharin and benzoic acid.....	10-19-10	\$25 and costs.
Warrick.....	19165	Fultz and Abshier, Newburg.....	Failure to declare the alcohol content on label.....	10-18-10	\$10 and costs.
Warrick.....	19166	Fultz and Abshier, Newburg.....	Failure to declare the alcohol content on label.....	10-18-10	\$10 and costs.
White.....	19024	Ora Freeman, Monticello.....	Beer, sold as temperance beer.....	10-26-10	\$25 and costs.
White.....	19025	Larkin B. Lowe, Monticello.....	Beer, sold as temperance beer.....	10-26-10	\$25 and costs.

SUMMARY OF REPORTS OF CONDEMNATION SENT OUT DURING OCTOBER, 1910.

CLASSIFICATION.	Reasons for Condemnation.		Total.
	Unsanitary Conditions.	Improper Construction.	
Abattoir.....	1	0	1
Bakeries.....	1	3	4
Dairies.....	0	1	1
Groceries.....	2	3	5
Meat markets.....	2	0	2
Slaughter houses.....	1	0	1
Restaurants.....	6	1	7
Total.....	13	8	21

FIFTH ANNUAL REPORT OF THE FOOD AND DRUG LABORATORIES OF THE LABORATORY OF HYGIENE.

H. E. BARNARD, CHEMIST, STATE FOOD AND DRUG COMMISSIONER.

The annual report of the Indiana State Board of Health for 1910 will include all the work of the chemical departments of the state laboratories, but since the report will not be printed until the fall of 1911, and even then its distribution will be limited to health officers, it seems advisable to present in the Monthly Bulletin such of the results as illustrate the condition of the food and drug supply, and especially to

set out in detail the analytical data which is of value in showing our methods of work.

Before the enactment of our present efficient food law, the work of the chemical department was confined to such simple tests as would determine whether or not samples sent in by inspectors were adulterated, but at the present time it is with increasing difficulty that the inspectors are able to find samples which they even suspect to be impure, and the food and drug chemists now find it possible to take up the larger problems concerning food production and to use the facilities at hand in the solution of the many questions which concern both the producer and the consumer. For instance, the drug chemists have studied to good purpose the deterioration of drugs and the preservation of fruit syrups, and the food chemists have given much attention to the analysis of so-called temperance beers and have made an exhaustive study of the composition of tomato catsup, the oxidation of essential oils, and to certain physiological problems connected with the nutrition of man. Much of this work has already been published in the Monthly Bulletin, but other papers which are too long for presentation here are of necessity made a part of the annual report.

During the year 2,442 samples of food products purchased from dealers by inspectors and sent in for examination by health officers have been analyzed. Of this number 1,688 samples have been found to be pure and properly labeled and 754 either adulterated or misbranded. This is equivalent to a percentage of adulteration of 30.8. In 1906 the percentage of adulteration was 42.3; in 1907, 20.8; in 1908, 14.9; in 1909, 33.8.

If these figures are assigned their face value the impression will be gained that no great improvement in the food supply has followed the enactment of food laws and the work of the inspectors and food chemists. The contrary, however, is true. In 1906 the samples examined included every variety of food-stuffs, while at the present time only such samples are purchased as bear on their face evidence of misbranding or probable adulteration. That the adulteration of food samples is not higher than 30 per cent. under these conditions is gratifying. It is probable that if the entire food supply were taken into consideration the amount of adulteration is considerably below 1 per cent. Certain classes of food have been and always will be impure in spite of legislation. Milk, for instance, because of the very nature of its production, will be dirty. It may be

possible to prevent watering and skimming, but there is no indication as yet that it will ever be possible to prevent the introduction of filth.

The following summary gives in part the character of the work done and the results:

RESULTS OF ANALYSES OF FOOD SAMPLES.

ARTICLE EXAMINED.	Total.	Legal.	Illegal.	Per Cent. of Adulteration.
Baking powder.....	5	3	2	40.0
Brandy and wine.....	3	3	0	0.0
Beef—				
Corned.....	2	2	0	0.0
Dried.....	1	1	0	0.0
Potted.....	1	1	0	0.0
Butter.....	104	51	53	50.9
Carbonated drinks.....	256	149	107	41.8
Crushed fruits.....	7	7	0	0.0
Catsups.....	152	34	118	77.6
Cranberries—fresh.....	19	19	0	0.0
Cream.....	216	204	12	5.5
Extracts—				
Lemon.....	34	19	15	44.1
Vanilla.....	24	19	5	20.8
Miscellaneous flavors.....	9	0	9	100.0
Fish products.....	5	5	0	0.0
Flour.....	25	15	10	40.0
Fruit butters and canned fruits.....	12	5	7	58.3
Fruit ciders.....	109	74	35	32.1
Hamburger.....	34	24	10	29.4
Honey.....	4	4	0	0.0
Ice cream.....	145	113	32	22.0
Jain.....	11	6	5	45.4
Jelly.....	11	8	3	27.2
Lard.....	63	36	27	42.8
Liverwurst.....	10	10	0	0.0
Maple syrup.....	43	34	9	20.9
Maple sugar.....	5	3	2	40.0
Milk.....	520	418	107	20.5
Condensed.....	3	0	3	100.0
Mother's.....	12	12	0	0.0
Mince meat.....	8	4	4	50.0
Miscellaneous foods.....	80	75	5	6.2
Mustard.....	17	16	1	5.9
Oysters.....	22	14	8	36.3
Pickles.....	35	13	22	62.8
Pickled onions.....	11	6	5	45.4
Pigs feet.....	2	2	0	0.0
Pudding—meat.....	2	1	1	50.0
Sausage.....	118	102	16	13.5
Smoked meats—				
Bacon.....	2	2	0	0.0
Bologna.....	14	7	7	50.0
Ham.....	7	7	0	0.0
Meat—miscellaneous.....	2	2	0	0.0
Weinerwurst.....	4	0	4	100.0
Spices—miscellaneous.....	13	12	1	7.6
Syrups.....	7	5	2	28.5
Temperance beers.....	135	62	73	54.0
Vinegar—cider.....	61	36	25	41.6
Vinegar—distilled white.....	8	8	0	0.0
Vinegar—distilled colored.....	39	34	5	12.8
Whiskey.....	10	6	4	40.0
Total.....	2442	1688	754	30.8

DAIRY PRODUCTS.

During the year 520 samples of milk have been analyzed, of which 107, or 20.5 per cent., were adulterated and 413 were pure. In determining the classification, samples of milk which have shown a sediment upon standing, have been classed as illegal, since a dirty milk is manifestly just as much in violation of the law as milk which has been skimmed or watered. The following table shows the results of the milk samples analyzed. In some cities the percentage of adulteration is very high and in others it is low. The percentage of adulteration is decidedly higher than has been heretofore reported, and establishes the unquestionable necessity for a continued and energetic supervision of the milk supply by local officers in their cities and towns.

A list of the illegal milk samples, giving the name and address of manufacturer or retailer and analytical data is here presented.

## MILKS—ILLEGAL.

Lab. No.	Retailer.	Where Collected.	Solids Not Fat.	Per Cent. Fat.	Remarks.	
13389	Geo. Stenler	Jeffersonville	10.24	3.2	20% added water.	
13390	John C. Stenler	Jeffersonville	9.49	2.8	23% added water.	
13689	Mike Spoerner	Hammond		4.3	Very dirty.	
13690	Mike Spoerner	Hammond		3.4	Very dirty.	
13694	George Andrus	Hammond		3.5	Very dirty.	
13695	L. Elster	Hammond		3.4	Very dirty.	
13698	E. Fruehling	Hammond	21.21	3.1	Below standard.	
13709	A. Schneider	Gary	11.84	3.2	Below standard.	
14876	E. S. Crockers	South Bend	12.07	2.5	Skimmed.	
14830	W. E. Ronischler	South Bend	11.25	2.4	Skimmed.	
15097	Harry Niodemus	Logansport		3.0	Below standard.	
15098	W. R. Cogley	Logansport		3.1	Below standard.	
15318	Laurelio & Coffey	Bloomfield	11.60	2.4	Below standard.	
15639	Steve Senebak	Whiting	11.69	3.0	Below standard dirty.	
15642	Stewart	Whiting	11.20	3.1	14% added water.	
16073	Sanitary Milk Co.	Peru	10.59	2.5	20% added water.	
16433	George McElwee	Peru		5.2	Dirty.	
16436	P. E. Jones	Peru		4.7	Dirty.	
16441	Peru Sanitary Milk Co.	Peru		4.3	Dirty.	
16442	Peru Sanitary Milk Co.	Peru		4.0	Very dirty.	
16444	Charles Stout	Peru	5.01	1.7	60% added water.	
16782	F. W. Penny	North Manchester		4.2	Very dirty.	
16794	B. M. Dreibelis	Plymouth		4.2	Very dirty.	
16877	J. F. Shine	Hammond		4.0	Very dirty.	
17373	J. Jamieson	Hammond	10.05	2.4	7% added water.	
17420	Tunk Brothers	Hammond		3.4	Dirty.	
17422	T. Klitzke	Hammond		3.6	Dirty.	
17424	T. Klitzke	Hammond		4.0	Very dirty.	
17426	T. Klitzke	Hammond		3.6	Dirty.	
17427	George Andrus	Hammond		4.0	Very dirty.	
17434	John Pohiplata	Hammond	11.50	3.0	Skimmed-dirty.	
17335	George Hitch	Evansville		3.2	Below standard.	
17540	George Helmuth	Evansville		4.1	Dirty.	
17541	Geo. H. Stockwell	Evansville		4.0	Dirty.	
17544	J. Herman	Evansville		3.9	Dirty.	
17545	George Bowler	Evansville		3.3	Dirty.	
17546	Jos. M. Killion	Evansville		3.2	Dirty.	
17549	J. C. Wallenmyer	Evansville		3.0	Below standard.	
17550	Evansville Pure Milk Co.	Evansville		4.6	Very dirty.	
17551	Evansville Pure Milk Co.	Evansville		4.0	Dirty.	
17572	Carrie Conneway	Lawrenceburg		3.7	Dirty.	
17574	Jos. Klein	Lawrenceburg		4.8	Dirty.	
17642	Frank Stark	South Bend	11.49	3.2	Below standard	
17645	Frank Stark	South Bend		3.6	Dirty.	
17692	George Reaves	South Bend	11.30	3.0	Skimmed.	
17750	R. Troup	South Bend	11.35	3.0		
17754	J. N. Luther	South Bend		4.5	Dirty.	
17818	George Hitch	Evansville		4.4	Very dirty.	
17819	Henry Messmaier	Evansville		4.0	Very dirty.	
17821	A. D. Miller	Evansville	11.28	2.6	Below standard.	
17822	Aickle Brothers	Evansville		4.0	Very dirty.	
17825	J. M. Killion	Evansville		4.4	Dirt and sand.	
17829	J. C. Wallmeyer	Evansville		4.0	Very dirty.	
17832	T. E. Lant & Son	Evansville		4.4	Very dirty.	
17828	L. A. Guenther	Evansville		4.2	Very dirty.	
17835	George H. Stockwell, Jr.	Evansville		4.1	Very dirty.	
17839	J. H. Baker & Son	Evansville	11.73	1.7	Skimmed.	
17841	Hugo Brothers	Evansville	9.65	2.6	30% added water.	
17843	Evansville Pure Milk Co.	Evansville		4.2	Very dirty.	
17844	Evansville Pure Milk Co.	Evansville		4.0	Very dirty.	
17870	Joseph Emswiler	Peru	11.53	2.8	Skimmed.	
17874	Sanitary Milk Co.	Peru		2.8	Below standard.	
18060	Joseph Zurbrigg	Hammond		3.6	Dirty.	
18430	Vincennes Milk Cond. Co.	Vincennes	11.44	3.1	Below standard.	
18561	Frank Gumsawalt	Mishawaka		4.0	Dirty.	
18632	R. P. Lanckert	Richmond	9.12	3.0	16% added water.	
18634	Raper Brothers	Richmond	11.35	3.2	3% added water.	
18635	E. L. Commond	Richmond	11.13	3.2	8% added water.	
18672	J. H. Smith	Terre Haute	13.45	3.2	Below standard.	
18681	J. S. Ladd	Terre Haute	10.30	1.1	Below standard.	
18701	George Reaves	South Bend		2.8	Dirty.	
18707	Jemme B. Sholly	South Bend		4.3	Dirty.	
18736	Jacob Friedzman	Hammond	5.39	2.7	70% added water.	
18749	Otto Hina	South Bend	10.75	3.2	12.6 added water.	
18750	E. A. Johnson	South Bend		5.0	Dirty.	
18751	J. D. Shark	South Bend		4.7	Dirty.	
18752	M. P. Shepman	South Bend		3.8	Dirty.	
18757	R. Troupe	South Bend		11.42	3.1	Skimmed.
18759	Alexander Kocous	South Bend	11.30	3.0	Sand present.	
18792	— Pitts	Richmond	12.33	3.2	Below standard.	
18794	— Sankert	Richmond	10.87	3.2	7% added water.	
18797	— Huron	Richmond	12.41	3.2	Below standard.	
18810	Sanitary Milk Co.	Peru		2.9	Skimmed.	
18825	Bert Chivington	South Bend		4.8	Very dirty.	
18826	Abe Rose	South Bend		4.1	Very dirty.	
18827	Abe Rose	South Bend		4.1	Very dirty.	
18828	William Korn	South Bend		2.8	5% added water.	
18837	Nelson Porter	South Bend		4.1	Very dirty.	
18868	John Laid	Terre Haute	10.62	1.4	Skimmed.	
18949	John Tussler	Richmond	10.87	2.3	Skimmed.	
18951	Oliver Meyer	Richmond	11.55	3.0	Skimmed.	
18953	Jesse Gard	Richmond		4.5	Dirty.	
18954	City Restaurant	Richmond	10.66	2.9	17% added water.	
18956	E. L. Commons	Richmond	12.00	3.2	Below standard.	
18990	Jesse Utery	Goshen		4.5	Sand present.	
19012	George Reaves	South Bend		4.1	Dirty.	
19016	H. W. Nelson	South Bend		4.1	Sand present.	
19019	Charles Cohn	South Bend		3.9	Sand present.	
19043	J. Y. Slick	South Bend		4.2	Dirty.	
19047	Bert Ray	South Bend		4.2	Dirty.	
19048	South Bend Sanitary Milk Company	South Bend		4.0	Dirty.	
19062	John Plocke	Richmond		3.8	Sand present.	
19063	Ganes Colbow	Richmond		3.5	Dirty.	



MILKS—ILLEGAL—Continued.

Lab. No.	Retailer.	Where Collected.	Solids Not Fat.	Per Cent. Fat.	Remarks
19066	William Hartman	Richmond		4.5	Sand present.
19067	John Plocke	Richmond		3.9	Sand present.
19068	John Batchlor	Richmond		4.8	Dirt present.
19069	F. S. Clapp	Richmond		4.3	Sand present.
19072	C. Ratliff	Richmond		4.7	Sand present.

MILK ANALYSES BY CITIES AND TOWNS.

LOCALITY.	Total Number Samples.	Number Above Standard.	Number Below Standard.	Per Cent Below Standard.	Per Cent Total Solids in Lowest Sample.	Number Containing Dirt.
Bloomington	10	10	0	0.0		
Bloomfield	1	0	1	100.0	11.60	
Boonville	1	1	0	0.0		
Columbus	4	4	0	0.0		
Decatur	3	3	0	0.0		
Evansville	42	20	22	52.3	9.55	18
French Lick	3	3	0	0.0		
Gary	10	9	1	10.0	11.84	
Goshen	11	10	1	9.0		1
Hammond	58	43	15	25.8	5.39	12
Huntington	6	6	0	0.0		
Indianapolis	4	4	0	0.0		
Jeffersonville	2	0	2	100.0	19.49	
Julietta	2	2	0	0.0		
Kendallville	2	2	0	0.0		
Knox	1	0	1	100.0		
LaPorte	6	5	1	16.6		
Lawrenceburg	9	7	2	22.2		2
Logansport	25	23	2	8.0		
Mishawaka	13	12	1	7.7		1
New Albany	12	12	0	0.0		
New Castle	2	2	0	0.0		
North Judson	2	2	0	0.0		
North Manchester	2	1	1	50.0		1
Peru	61	52	9	14.7	5.01	4
Plymouth	5	4	1	20.0		1
Princeton	5	5	0	0.0		
Richmond	93	44	18	29.0	9.12	8
Shelbyville	7	7	0	0.0		
South Bend	93	67	26	27.9	10.75	18
Spencer	1	1	0	0.0		
Terre Haute	20	23	3	11.5	10.30	1
Vincennes	7	6	1	14.2	11.44	
Warsaw	6	6	0	0.0		
West Baden	7	7	0	0.0		
Whiting	2	1	1	50.0	11.20	1
Winamac	3	3	0	0.0		
Thirty-six cities	520	413	107	20.5		

BUTTER.

One hundred and four samples of butter were analyzed, of which 53, or 51.3 per cent., were illegal. The illegal butter included all samples bought for butter which were oleomargarine in whole or in part and also samples which contained more than the moisture content recognized by the

BUTTER—ILLEGAL.

Lab. No.	Manufacturer or Retailer.	Butyro 40° C.	Reichert Meas.	Moisture.	Spoon Test.
*16109	William McMasters, Indianapolis	48.1	7.16	9.06	Sputters.
*16274	Mishawaka Produce Co., Mishawaka	49.0	3.92		Sputters.
*16466	A. Albright, Mishawaka	49.1	1.13	15.60	Sputters.
*16467	A. Albright, Mishawaka	49.2	1.14	16.30	Sputters.
*16749	J. T. Willett, South Bend	50.8	1.05	28.08	No foam.
*16750	J. T. Willett, South Bend	49.2	1.38	16.62	No foam.
16752	John Line, LaPorte	49.2	1.05	14.17	No foam.
16763	John Sell, North Manchester	43.5	27.25	20.55	Foams.
*16783	J. T. Willett, South Bend	48.4	1.98	11.10	No foam.
*16783	J. T. Willett, South Bend	51.8	1.64	9.38	No foam.
*16783	J. T. Willett, South Bend	48.7	7.20	8.91	Little foam.
16812	W. W. Reed, Warsaw	47.8	9.20	9.05	No foam.
16815	Joe Foote, Warsaw	52.3	2.37	18.33	No foam.
16829	Lawrence H. Heiny, Ft. Wayne		1.17	17.30	No foam.
16839	T. Rowland, LaPorte	49.5	1.81	21.00	No foam.
16839	T. Rowland, LaPorte	49.2	1.28	8.06	No foam.
17003	Consumers Butter Co., Logansport	49.2	1.30	14.40	No foam.
17005	Consumers Butter Co., Logansport	52.3	1.23		No use color.
*17014	F. W. Smith, Indianapolis				

internal revenue department. This moisture content is 16 per cent. and 20 of the 53 illegal samples were so classed for that reason, the moisture content varying from 16.3 to 50.13 per cent. Within the past year several so-called "butter mergers" have been placed upon the market which incorporate milk with butter in approximately equal amounts. The product is sometimes sold for butter, although as a matter of fact the water content is very high and the true value of the product, as determined by its butter fat content, is no greater than that of the original butter used.

CREAM.

Two hundred sixteen samples of cream were analyzed, of which 12, or 5.5 per cent., were classed as adulterated. All of the illegal samples were so classed because they contained less than 18 per cent. butter fat, their actual fat content varying from 12 to 16.8 per cent. The fat standard for cream is now apparently well established and we anticipate little difficulty in the future in keeping the cream supply up to the required 18 per cent. butter fat.

CREAMS—ILLEGAL.

Lab. No.	Retailer.	Address.	Per Cent. Fat.
15637	James McMarra	Whiting	12.0
15643	C. Stewart	Whiting	15.6
18072	Sanitary Milk Co.	Peru	14.0
16290	C. F. Johnson	Paoli	12.5
17371	John Pohplats	Hammond	14.4
17500	Sanitary Milk Co.	Peru	14.4
17581	Ed F. Bender	Gary	13.6
17585	Henry Page	Gary	15.4
17587	Albert Schneider	Gary	12.4
*18981	Dr. C. G. Ray	Muncie	15.4
*19004	Dr. C. G. Ray	Muncie	16.8
*19006	Dr. C. G. Ray	Muncie	15.4

\*Refers to "B" samples or samples sent in.

BUTTER—ILLEGAL—Continued.

Lab. No.	Manufacturer or Retailer.	Butyro 40° C.	Reichert Meissel.	Moisture.	Spoon Test.
*17015	F. W. Smith, Indianapolis	52.5	1.36		No ase color.
*17016	F. W. Smith, Indianapolis	48.4	2.27		No ase color.
17114	E. C. Schneider, Logansport	49.1	.93	16.30	No foam.
17126	E. C. Schneider, Logansport	49.1	1.45	16.60	No foam.
17392	V. J. Watson, Sullivan	46.6	7.31	10.26	No foam.
*17393	William Herrod (no address given)			50.13	
*17436	Dr. C. C. McIntosh	43.5	23.46	21.31	
*17505	Jacob Friedman, Hammond			34.72	
*17506	Jacob Friedman, Hammond			35.56	
*17507	Jacob Friedman, Hammond			10.80	
*17527	F. W. Conneford, Gary	48.2	7.70	8.20	
17550	Max Rotterburg, East Chicago	48.9	2.58	10.60	No foam.
17598	George Hasiah, Gary	49.1	1.58	7.12	
17600	Mike Zober, Gary	49.4	1.72	5.93	
17604	M. Seikora, Gary	50.4	2.22	7.00	
17611	S. L. Eisler, Gary	49.2	1.68	6.50	
17614	Gary Provision Co., Gary	50.3	1.92	6.50	
17675	Spiras Stratigas, Gary	47.9	7.75		
17677	John Karidy, Gary	46.6	12.15		Little foam.
17703	I. Truburger, Ft. Wayne (short weight)	50.7	2.09		No foam.
17715	Welker Grocery Co., Ft. Wayne (short weight)	41.5	24.07	12.60	Foams.
17716	Dodame & Son, Ft. Wayne (short weight)	41.6	22.68	10.10	Foams.
17718	Heimey & Son, Ft. Wayne (short weight)	43.0	26.34	18.84	No foam.
17957	George Tuzle, Indiana Harbor	42.6	25.79	12.17	Foams.
17958	Paulsen Tea Company, Indiana Harbor	49.2	1.50	10.27	No foam.
17960	F. U. Bowser, Indiana Harbor	48.5	4.07	7.94	No foam.
17962	J. H. McAnley, Indiana Harbor	43.1	28.84	19.63	Foams.
17965	Steenberger Brothers, Indiana Harbor	49.1	5.86	8.81	No foam.
17966	F. A. Pekownik, Indiana Harbor	49.3	1.41	10.55	No foam.
17998	Ream & Son, Peru	47.5	6.06	5.77	No foam.
*18739	Blue Valley Creamery Co., Indianapolis	43.8	27.79	38.29	Foams.
*18975	D. Chapin, Indianapolis	47.3			No foam.
*18976	D. Chapin, Indianapolis			18.80	
*18978	D. Chapin, Indianapolis			19.90	
*18979	D. Chapin, Indianapolis			22.02	
				17.60	

\*Refers to samples which were sent to the laboratory.

ICE CREAM.

One hundred and forty-five samples of ice cream were analyzed, of which 113 were legal and 32 illegal. The illegal samples for the most part are but slightly under the required standard of S per cent., although occasional samples are much lower. The lowest figure reported was 2.2 per cent.

ICE CREAM—ILLEGAL.

Lab. No.	Retailer or Manufacturer.	Address.	Per Cent. Fat.
16376	Columbus Ice & Coal Co.	Columbus	7.8
17796	Chas. Giomi	South Bend	7.2
17798	J. L. Turner & Co.	South Bend	5.2
17897	William H. Thompson	Huntington	5.6
17905	H. L. Conter	Decatur	6.2
17912	Sig Frank	Kokomo	7.2
18402	Furnas Ice Cream Co.	Indianapolis	7.8
18303	Old Fort Ice Cream Co.	Ft. Wayne	6.8
18305	Hartial Ice Cream Co.	Ft. Wayne	6.6
*18371		Carbon	4.6
18382	Joe E. Bender	Cambridge City	6.4
18488	F. A. Green	Knox	7.6
18489	J. H. Brockhouse	Knox	3.8
18490	J. L. Turner	South Bend	6.3
18491	G. R. Howard	Culver	6.0
18505	W. B. Hollingsworth	South Bend	7.4
18506	J. W. Wittner	South Bend	7.2
18507	J. L. Turner	South Bend	5.2
18508	J. I. Nuble	South Bend	6.6
18526	John Simons	Artes	4.6
18530	Hamlett Bros	Rochester	5.4
18531	Hamlett Bros	Rochester	6.0
18532	Hamlett Bros	Rochester	6.0
18556	Hamlett Bros	Rochester	6.4
18559	Hamlett Bros	Rochester	7.0
18767	N. Schilling	South Bend	7.4
18847	Pure Milk Co.	Boonville	4.2
18882	Henry Herman	Evansville	7.6
18884	Purity Ice Cream Co.	Evansville	7.6
18885	George W. Cowl	Evansville	7.6
*18893	Jacob Friedman	Hammond	6.6
18944	Ike Meyer	Richmond	2.4

\*Refers to sample sent in.

LARD.

Sixty-six samples of lard were analyzed, of which 36 were illegal and 27, or 42.8 per cent., were illegal. The illegal list is swelled by the inclusion of 17 samples of lard

compound sent in by dealers who had reasons to suspect the character of the goods they were handling. One dealer sent in 12 samples for analyses which showed the presence of beef fat and cottonseed oil, although he had purchased the samples as pure lard.

LARD—ILLEGAL.

Lab. No.	Retailer or Manufacturer.	Butyro Reading at 40° C.	Cottonseed Oil Test (Halphen)	Beef Fat Crystals
16282	Graham & Kellams, French Lick	49.25	Trace	Present
18383	Long & Watson, Columbus	51.10	5%	Present.
18543	H. B. Graybrook & Bros	49.30	Negative	Present.
18547	Frank Manns, New Albany	49.00	Negative	Present.
*18926	Geo. M. Gillie, Ft. Wayne	53.30	25%	Present.
*17155	E. J. Beardsley, Alexandria	49.30	Negative	Present.
17477	John Kissell, Seymour	48.50	Negative	Present.
*17520	G. W. Gillie, Ft. Wayne	54.25	30%	Present.
*17521	G. W. Gillie, Ft. Wayne	54.30	30%	Present.
17702	White Fruit House, Ft. Wayne	54.80	25%	Present.
17714	Welkers Grocery Co., Ft. Wayne	52.80	15%	Present.
17959	F. U. Bowser, Indiana Harbor	56.10	35%	Present.
17969	Galik F. Bajar, Indiana Harbor	55.60	35%	Present.
18185	H. F. Voltsner, Washington	50.30	10%	Present.
*18257	Wm. Kahn, Madison	49.50	Negative	Negative.
*18958	R. H. Cooper, Elwood	50.60	10%	Present.
*18959	R. H. Cooper, Elwood	50.60	10%	Present.
*18960	R. H. Cooper, Elwood	51.50	15%	Present.
*18961	R. H. Cooper, Elwood	51.40	15%	Present.
*18962	R. H. Cooper, Elwood	48.20	Negative	Present.
*18963	R. H. Cooper, Elwood	52.80	20%	Present.
*18964	R. H. Cooper, Elwood	50.40	Negative	Present.
*18965	R. H. Cooper, Elwood	50.80	Negative	Present.
*18966	R. H. Cooper, Elwood	51.10	10%	Present.
*18967	R. H. Cooper, Elwood	50.30	Negative	Present.
*18968	R. H. Cooper, Elwood	48.50	Negative	Present.
*18969	R. H. Cooper, Elwood	46.00	5%	Present.

\*Refers to samples brought to the laboratory.

†This sample contains a mould known as aspergillus niger.

FLOUR.

Twenty-five samples of flour were analyzed during the year, 15 of which were classed as legal and 10 as illegal. Several of the illegal samples were so classed because of the admixture of foreign starches or the presence of nitrites introduced in the bleaching process. By a ruling of the State Board of Health, bleaching is not prohibited in Indiana if that fact is plainly declared on the label of the package.

FLOUR—LEGAL.

FLOUR—ILLEGAL.

Lab. No.	Classification.	Manufacturer or Retailer.	Remarks.
*16178		C. C. Fritch, Indianapolis.	No foreign ingredient present.
*17043	Wheat flour.	Hermanne & Dussel, Bristol, Ind.	Legal.
18344	Wheat flour.	Cadic Milling Co., Grandview, Ind.	No nitrates present.
*18737	Wheat flour.	Mrs. C. V. Ludlow, Elwood, Ind.	No foreign ingredients.
18900	Wheat flour.	Quaker Oats Co., Chicago, Ill.	No foreign ingredients.
16308	Wheat flour.	Cadic Milling Co., Grandview, Ind.	No nitrates.
18930	Wheat flour.	Cadic Milling Co., Grandview, Ind.	No nitrates.
13579	Buckwheat.	Samuel Koontz, Walkerton, O.	No wheat starch present.
16275	Buckwheat.	Loughrey Bros., Monticello, Ind.	No wheat starch present.
16308	Buckwheat.	Elliottville Mfg. Co., Elliottville, N. Y.	No wheat starch present.
16554	Buckwheat.	W. C. Vabersdol, Greencastle, Ind.	No wheat starch present.
17210	Buckwheat.	E. S. Turner, Argos, Ind.	No wheat starch present.
17352	Buckwheat.	D. Phil Logansport, Ind.	No wheat starch present.
17353	Buckwheat.	Elliott Gro. Co., Logansport, Ind.	No wheat starch present.
17334	Buckwheat.	J. H. Foley, Logansport, Ind.	No wheat starch present.

Lab. No.	Classification.	Manufacturer or Retailer.	Remarks.
16179	Wheat flour.	Stone City Mfg. Co., Bedford, Ind.	Nitrites present.
18181	Wheat flour.	Wm. Luckow, Franklin, Ind.	Mouldy.
18345	Wheat flour.	Cadic Milling Co., Grandview, Ind.	Nitrites present.
18346	Wheat flour.	Cadic Milling Co., Grandview, Ind.	Nitrites present.
18265	Buckwheat.	Little Crow Mfg. Co., Warsaw, Ind.	Wheat flour present.
16316	Buckwheat.	Loughrey Bros., Monticello, Ind.	Wheat flour present.
16609	Buckwheat.	Lathrop & Rardin, Brazil, Ind.	Wheat starch present.
17025	Buckwheat.	H. A. Hank, Hamlet, Ind.	About 5% wheat starch present.
17335	Buckwheat.	Bishop & Co., Logansport, Ind.	Slight admixture foreign starch.
17211	Pancake.	L. M. Brackett, Rochester, Ind.	Low in weight.

\*Refers to "B" samples sent in for information.

CATSUPS.

One hundred and fifty-two samples of catsup were analyzed, of which 34 were pure and 118 illegal. The samples rated as illegal were so classed because of the presence of benzoic acid introduced as sodium benzoate, evidently for the purpose of preventing decomposition and spoilage. These catsups in nearly every instance were misbranded.

the sodium benzoate content being far in excess of that declared on the label. Certain samples of Williams Brothers' goods were labeled 1/10 and 1/12 of 1 per cent. sodium benzoate, but as a matter of fact, they contained .34 per cent. or four times the indicated amount.

CATSUP—LEGAL.

Lab. No.	Manufacturer.	Acids.			Solids.		Ash.	Salt.	Sugar.
		Total.	Volatile.	Fixed.	Total.	Tomato.			
13362	Red Supper Sauce Co., Memphis, Tenn.	3.6			13.54		2.27	1.83	
14520	W. W. Hoyt, Chicago, Ill.	.78	.30	.50	25.49	12.98	2.98	1.81	9.53
16229	H. J. Heinz Co., Pittsburg, Pa.	1.66	1.22	.64	35.60	7.82	3.74	2.81	25.04
16224	Beechnut Pck. Co., Canajoharie, N. Y.	1.29	.55	.74	21.35	5.84	2.85	1.67	13.03
16228	VanCamp Pck. Co., Indianapolis	1.38	.40	.69	23.05	4.92	4.39	2.79	13.74
16230	J. T. Polk & Co., Greenwood, Ind.	1.96	.15	.79	18.10	5.65	2.94	1.62	9.49
16351	D. D. Huffman Co., Indianapolis.	1.80	.26	.98	21.34	4.88	3.55	2.54	12.94
16371	Sprague Warner Co., Chicago, Ill.	1.09	.59	.52	21.75	5.07	3.19	3.18	13.50
16984	Kothe-Wells & Bauer, Indianapolis, Ind.	1.26	.33	.98	20.02	4.72	4.25	3.11	11.05
16986	Cruikshank Bros., Indianapolis, Ind.	1.62	.96	.74	42.60	11.61	5.58	4.21	25.41
17023	J. Campbell, Camden, Ind.	.84	.12	.72	16.80	6.35	3.17	2.11	8.28
17029	Hirsch Bros., Louisville, Ky.	2.40	.10	1.39	28.18	6.57	4.55	3.27	17.06
17093	W. W. Vaughn, Detroit, Mich.	1.73	1.16	.57	23.30	5.69	3.13	1.27	16.49
17097	Home Preserving Co., Indianapolis, Ind.	2.05	.55	1.52	20.14	15.28	2.16	1.24	8.70
17112	C. E. Fithian, Peru, Ind.	1.23	.34	.71	19.73	6.61	2.63	1.62	10.44
17120	Mrs. Earl Bennett, Logansport	1.29	.33	.80	26.64	5.46	5.26	4.00	15.80
17168	Jersey Pck. Co., Cincinnati, O.	1.24	.51	.74	23.84	11.02	2.66	1.77	10.28
17173	J. Weller, Cincinnati, Ohio	.99	.23	.77	20.64	6.87	3.37	2.64	11.40
17216	Lizzie Remond, Indianapolis, Ind.	1.11	.51	.61	16.31	3.10	3.80	3.25	13.39
17226	E. C. Hazard Co., N. J.	1.11	.65	.48	20.40	4.25	2.72	1.69	9.31
17258	Sprague-Warner Co., Chicago, Ill.	1.14	.53	.57	18.94	4.05	3.43	2.09	12.27
17273	A. W. Colter Can. Co., Mt. Washington	1.82	.70	.70	19.45	4.05	3.43	2.09	12.27
17279	Ellen Dayhuff, Paoli, Ind.	1.69	.09	.57	30.22	7.71	3.84	3.19	18.57
17315	C. S. Sullivan & Son, Denver, Ind.	1.48	.34	1.14	17.00	6.75	3.01	1.71	8.74
17319	Fred C. Elder, Chicago, Ill.	2.07	1.46	.58	21.37	5.73	2.77	2.30	13.37
17330	C. Callahan, LaFayette, Ind.	.99	.13	.84	22.49	3.35	4.03	2.86	13.11
17310	Kokomo Canning Co., Kokomo, Ind.	.63	.31	.32	11.92	4.00	4.24	3.58	3.68
17478	Mrs. L. S. Bowles, Paoli, Ind.	.81	.31	.31	23.87	6.39	3.00	2.31	15.45
17577	Wm. Beanning, Chicago, Ill.	.91	.30	.64	6.81	3.37	1.54	.91	1.90
17982	Mrs. W. C. Hoffman, Indianapolis, Ind.	1.74	.33	1.39	24.58	7.51	4.31	2.67	12.74
17983	Mrs. John Owens, Washington, Ind.	.87	.13	.73	31.83	5.08	1.55	1.03	24.30
17983	Mrs. Chamberlain, Indianapolis, Ind.	1.50	.67	.84	11.87	4.13	1.59	.61	6.15
18046	Mrs. S. C. Schutt, Indianapolis, Ind.	1.26	.74	.56	89.75	6.99	2.61	1.06	21.45
18067	Schull & Co., Indianapolis, Ind.	.75	.42	.32	24.21	6.78	3.35	2.82	12.08

CATSUP—ILLEGAL.

Lab. No.	Manufacturer.	Acidity.	Solids.	Ash.	Salt.	Sugar.	Sodium Benzoate.
14030	Lutz & Schramm, Cincinnati, Ohio	1.17	18.40	3.35	2.18	10.26	.276
14640	Williams Bros. Co., Detroit, Mich.	1.14					.228
14651	Williams Bros. Co., Detroit, Mich.	1.08					.207
14652	Williams Bros. Co., Detroit, Mich.	1.14					.213
14653	Williams Bros. Co., Detroit, Mich.	1.03					.217
14654	Williams Bros. Co., Detroit, Mich.	1.02					.217
14655	Williams Bros. Co., Detroit, Mich.	1.14					.223
14663	Curtice Bros. Co., Rochester, N. Y.	.78					.211
14663	Curtice Bros. Co., Rochester, N. Y.	.84					.208
14663	Curtice Bros. Co., Rochester, N. Y.	.84					.169
14669	Williams Bros. Co., Detroit, Mich.	.96					.179
14670	Squire Dingee Co., Chicago, Ill.	1.47					.178
14675	Dodson Braun Co., St. Louis, Mo.	1.35					.201
14679	Williams Bros. Co., Detroit, Mich.	1.06					.270
14698	Curtice Bros. Co., Rochester, N. Y.	.72					.203
14701	Curtice Bros. Co., Rochester, N. Y.	.84					.188
14704	Williams Bros. Co., Detroit, Mich.	1.08					.217

MAPLE SYRUP.

Forty-three samples of maple syrup were analyzed, 34 of which were legal and 9 illegal. The illegal syrups were so classed because of the presence of added sugar or glucose. One sample was a very dilute syrup and, although a maple product, could not be classed as a pure maple syrup. Two of the 7 samples of maple syrup were not pure maple prod-

ucts, since they contained added sugars not derived from the maple tree. The majority of the samples of maple syrup analyzed were not collected by inspectors, but were sent in for analyses, usually by customers who had purchased them either from grocers or farmers and who, for some reason, suspected their purity.

MAPLE SYRUP—LEGAL.

Lab. No.	Retailer or Manufacturer.	Polarization.		Sucrose.	Total Ash.	Alk. of Ash.		Solids.
		Direct.	Invert.			Soluble.	Insoluble.	
*15797	Everson Prebster, Brownsburg.	+56.6	-20.2	57.9	.82	.80	1.08	
*18171	Kothe, Wells & Bauer, Indianapolis.				.56	.40	.40	
16813	W. W. Reed, Warsaw.	+61.2	-14.3	58.2	.93	.28	.72	
*17195	Kothe, Wells & Bauer, Indianapolis.	+59.0	-16.9	58.0	.56	.48	.50	
*17223	Abner Earhart, Deaver.	+66.8	-16.7	64.0	.57	.48	.58	
*17267	F. W. Comerford, Gary.				.52	.42	.50	
*17312	V. V. Cameron, Marion.	+59.6	-15.2	57.6	.51	.32	.52	80.64
*17313	V. V. Cameron, Marion.	+60.8	-15.8	59.0	.72	.50	.48	68.32
*17455	H. P. Coffman, Greencastle.	+65.6	-15.1	61.8	.82	.49	.54	70.57
*17631	J. C. Kashner, Thorntown.				.61	.36	.64	65.42
17693	Kelly & Allman, Peru.	+58.8	-20.4	60.6	.67	.59	.75	66.10
17694	Kelly & Allman, Peru.	+48.2	-19.1	51.5	.63	.30	.33	
17696	Wm. Doehmann, Ft. Wayne.	+60.0	-20.4	61.5	.56	.44	.73	68.14
17699	Coerdale & Archer Co., Ft. Wayne.	+55.8	-20.2		.65	.44	1.00	68.60
*17722	C. Z. Thistlewaite, Sheridan.	+61.6	-23.0	63.9	.52	.43	.70	68.10
*17761	Mrs. Willard Hurt, Monrovia.	+63.3	-13.5	58.8	.77	.54	.74	68.50
*17762	R. D. Hardman, Lafontaine.	+55.8	-20.1	58.1	.78	.61	.63	69.30
*17765	Dr. D. W. Weaver, Greensburg.	+61.4	12.6	56.6	.75	.48	.77	69.60
*17766	Dr. D. W. Weaver, Greensburg.	+64.6	-17.7	62.9	.60	.42	.67	69.10
*17773	R. L. Cooper, Mooresville.	+59.3	-17.3	58.7	.70	.45	.62	70.10
*17774	Mike Slavin, Bluff Road.	+59.4	-14.6	56.7	.75	.55	.80	66.90
*17805	Dr. John White, Terre Haute.	+62.1	-14.9	58.9	.68	.39	.81	68.90
17848	J. A. Dailey, Terre Haute.	+63.6	-16.6	61.4	.84	.55	.55	68.20
17852	J. W. Stern, Peru.	+65.4	-16.2	62.6	.58	.48	.61	71.30
*17997	Mrs. W. H. Minnick, Auxois.	+62.7	-18.4	60.9	.78	.47	.60	68.10
18044	Price & Lucas, Louisville, Ky.	+44.3	-13.0	44.0	.68	.10	.06	61.65
*18170	Mr. Wallace, State House, Indianapolis.	+42.6	-11.2	41.0	.70	.40	1.03	68.80
*18177	J. Hunter, Elwood.	+58.6	-20.4	59.8	.67	.39	.53	62.50
18250	Mrs. Nathan Myers, Wabash.	+59.2	-7.1	51.5	.82	.34	.62	65.60
*18280	F. Henry, Indianapolis.	+59.2	-20.8	60.5	.65	.50	.50	68.20
*18467	Mrs. N. Meyer, Wabash.	+57.6	-20.2	60.0	.61	.33	.67	65.89
*18644	Schnull & Co., Indianapolis.	+60.0	-16.5	58.7	.63	.46	.54	66.64
*18645	Schnull & Co., Indianapolis.	+60.2	-16.9	59.0	.49	.84	.52	61.74
*18913	W. B. Leeson, Martinsville.	+60.0	-1.5	47.2	.79	.62	.75	63.97

\*Refers to samples brought to the laboratory.

MAPLE SYRUP—ILLEGAL.

Lab. No.	Retailer or Manufacturer.	Polarization.		Sucrose.	Total Ash.	Alk. of Ash.		Solids.
		Direct.	Invert.			Soluble.	Insoluble.	
14834	Reid Murdock Co., Chicago, Ill.	+55.4	-21.1	57.0	.328	.50	.38	
15265	E. A. Charbonneau, Detroit, Mich.	+35.7	-20.6	42.5	.084	.42	.18	
16315	Lewis Ray, Logansport.	+62.6	-15.6	60.3	.629	.62	.03	
16937	M. L. Michael, LaPorte.	+60.0	-16.7	59.0	.190	.60	.20	
*17623	F. N. Thurston, Indianapolis.	+66.4	-8.8	58.0	1.100	.36	.84	73.05
*17676	D. Stratigan, Gary.	+119.2	+115.0	3.0	.310	.10	.25	
17678	John Karady, Gary.	+58.0	-19.5	59.8	.080	.07	.14	69.00
17898	Gets, Sharp & Orr, Ft. Wayne.	+58.6	-19.8	57.7	.490	.43	.58	66.30
18471	Ray O. Hoover, Akron, Ind.	+30.8	-19.5	39.0	.920	.58	1.100	65.84

\*Refers to samples brought to laboratory.

†This sample is 66.4% glucose.

MAPLE SUGAR.

Lab. No.	Retailer or Manufacturer	Polarization.		Sucrose.	Total Ash.	Alk. of Ash.		Remarks.
		Direct.	Invert.			Soluble.	Insoluble.	
17328	Clyde A. Stagg, Greensburg.	+24.4	-7.48		1.13	.67	1.27	Legal.
17695	Kelly & Allman, Peru.				0.99	.82	1.37	Legal.
17697	F. J. Munsch, Ft. Wayne.				1.08	.62	1.48	Legal.
18416	J. L. Blocker, West Baden.	+71.2	-6.72	50.7	1.31	.58	0.64	Not pure maple sugar.
18417	Reid Murdock Co., Chicago, Ill.	+78.4	-1.20	61.6	0.68	.46	0.92	Not pure maple sugar.

SYRUPS.

Seven samples of syrup were analyzed, of which 6 were legal and 1 illegal. One sample was sold as pure sorghum, but it contained glucose, and for that reason was classed as illegal.

SYRUP.

Lab No.	Retailer or Manufacturer	Brand.	Per Cent Ash.		Alkalinity of Ash.		Polarization.		Sucrose.	Remarks
			Total.	Insol.	Sol.	Insol.	Direct.	Invert.		
16274	Corn Product Ref., New York	Magnolia	3.24	.780	111.0	74.0	+63.5	+41.58	17.0	Illegal. 26.57% Glucose.
*16408	Morrell Simpson, Bedford	Sorghum	4.22	.570	4.4	1.2	+50.0	-2.00		Legal.
16589	Thomas J. Trout, Bruceville	Sorghum	2.71	.510	110.0	70.0	+24.8	-17.00	32.2	Legal.
16625	L. E. Mosher, North Judson	Sorghum	2.54	.620	99.0	75.0	+26.4	-15.40	32.2	Legal.
16643	J. C. Schmitt, Peru	Sorghum	2.52	.650	102.0	88.0	+32.0	-17.80	38.4	Legal.
*17194	F. L. Brown, Anderson	Sorghum	1.90	.350	158.0	90.0	+52.4	+29.92	17.2	Not pure sorghum.
*17396	W. S. Easterday, Culver	Sorghum	2.44	.680	1.62	1.8	+30.4	-11.00	31.9	Legal.

\*Refers to samples brought to the laboratory.

OYSTERS.

Twenty-two samples of oysters were analyzed, of which 14 were legal and 8 illegal, either because of the presence of an excess of free water or because the dealer used an illegal short measure in filling the order. The character of

oysters has entirely changed in the last two years, and all shucked oysters shipped into the state are now free from added ice or water.

OYSTERS—LEGAL.

Lab No.	Retailer.	Weight (Grams)	Per Cent Water.
16307	W. McCaffrey & Co., Logansport	440	6.8
16359	M. C. Shea & Co., Indianapolis	475	9.7
16380	Poultry & Oyster House, Indianapolis	509	10.8
16361	A. Booth Co., Indianapolis	1949	14.8
16362	Frank G. Kamps, Indianapolis	1809	10.2
16455	L. F. Downey, Rochester	485	trace
16450	Frank Marsh, Rochester	505	5.0
16459	R. P. True, Rochester	493	3.0
16490	E. E. Clary, Rochester	495	14.1
16461	J. T. Liston, Rochester	505	1.9
16462	O. Karn, Rochester	310	12.7
17528	McWilliamson & Co., Indianapolis	496	18.3
17530	Jas. M. Sowders, Indianapolis	535	14.0
17531	Nicholson & Co., Indianapolis	480	6.1
17532	Sowders Fish Co., Indianapolis	470	17.0
17553	Mrs. T. J. Egan, Indianapolis	460	11.5

OYSTERS—ILLEGAL.

Lab No.	Retailer.	Weight, Grams.	Per Cent Water.	Short Weight.
16355	G. W. Nicholson, Indianapolis	467	22.05	
16368	Andrew Shorter, Winamac	575	28.80	
16479	F. G. Kamps, Indianapolis	455	24.20	
16506	M. A. Pesch, Plymouth	344	30.80	
17529	Earnest McCormick, Indianapolis	405	11.10	15.4%
17532	Earnest McCormick, Indianapolis	450	8.70	4.8%

SAUSAGE.

One hundred and eighteen samples of pan and pork sausage were analyzed, of which 102 were legal and 16 were illegal. The illegal samples were so classed because of the

presence of sodium sulphite added as a preservative or of starch used as a binder.

SAUSAGE—ILLEGAL.

Lab No.	Manufacturer.	Sulphites as Sodium Sulphite.	Borax.	Starch.
16345	C. L. Coppock, Jonesboro	.0599	Absent	Absent
16382	Long & Watson, Columbus	.0211	Absent	Absent
16307	Eckerts Co., Ft. Wayne		Absent	Present
16310	Eckerts Co., Ft. Wayne		Absent	Present
16511	G. E. Spiegel	.0176	Absent	Absent
16515	Leikauf Pek Co., Ft. Wayne		Absent	Present
16516	Eckerts Co., Ft. Wayne		Absent	Present
16542	H. B. Graybrook, New Albany	.3538	Absent	Absent
16583	Weeks Meat Co., Rushville	.0810	Absent	Present
16584	H. A. Kramer, Rushville	.0871	Absent	Absent
16710	Libby, McNeill & Libby, Chicago		Present	Absent
16730	George Rapp, Hartford City	.0230	Absent	Absent
16950	Zhart Bros., LaPorte	.0220	Absent	Absent
16956	Tanke Bros., LaPorte	.0599	Absent	Absent
17616	Gary Provision Co., Gary	.0877	Absent	Absent
17686	F. Lassu, Mishawaka	.0498	Absent	Absent

PREPARED MEATS.

Under the heading "Prepared Meats" is included various types of sausage and minced meat, such as bologna, liver-wurst, weinerwurst, ham, corned beef, etc. Eighty-one samples were analyzed, of which 22 were classed as illegal because of the presence of borax, sulphites or starch. In some samples both a preservative and starch were found. While the use of preservatives is decreasing, yet butchers

still recognize the efficiency of sulphites in making their unsalable meats appear in good condition. The use of starch as a filler or binder is far less common than formerly and, although it is occasionally used and its presence declared on the label, yet most prepared meats are now made without it.

PREPARED MEATS—ILLEGAL.

Lab. No.	Classification.	Manufacturer.	Starch.	Borax.	Sulphites.
16732	Bloodwurst	F. E. Yeoman, Hartford City	Present	Absent	Absent.
16416	Bologna	Wallace & Carroll, Edwardsville	Present	Present	Absent.
16419	Bologna	Tare & Downs, Plainville	Present	Present	Absent.
16669	Bologna	Anthony Stall, Brookville	Present	Present	Absent.
16682	Bologna	F. A. Maibaugh, Liberty	Present	Absent	Absent.
16720	Bologna	S. G. Spink, Dunkirk	Present	Absent	Absent.
16748	Bologna	Veit Bros., Union City	Present	Absent	Absent.
17100	Bologna	L. M. Colas, Indianapolis	Absent	Present	Absent.
16418	Hamburger	Tare & Downs, Plainville	Absent	Present	Absent.
16539	Hamburger	M. Wolfe, New Albany	Absent	Absent	Present.
16548	Hamburger	Ben Hertz & Son., New Albany	Absent	Absent	Present.
16729	Hamburger	George Rapp, Hartford City	Absent	Absent	Present.
16955	Hamburger	Fred W. Steigley, LaPorte	Absent	Absent	Present.
17101	Hamburger	L. M. Colas, Indianapolis	Absent	Absent	Present.
17106	Hamburger	Henry Dobrowitz, Indianapolis	Absent	Absent	Present.
17619	Hamburger	Tittle Bros., Gary	Absent	Absent	Present.
17681	Hamburger	A. Bucholtz, South Bend	Absent	Absent	Present.
*18231	Hamburger	Jacob Friedman, Hammond	Absent	Absent	Present.
16469	Weinerwurst	Guy Eshelman & Derr	Present	Absent	Absent.
16473	Weinerwurst	P. G. Powers, Marion	Present	Absent	Absent.
16474	Weinerwurst	Ira Emmons, Marion	Present	Absent	Absent.
16654	Weinerwurst	Ringloff & McCullen, Connersville	Present	Absent	Absent.

\*Refers to sample brought to the laboratory.

CIDER VINEGAR.

Thirty-six of the sixty samples of cider vinegar were legal and 24 illegal. Nineteen of the illegal cider vinegars were sent in for analyses by dealers who suspected the purity of the product.

CIDER VINEGAR—LEGAL.

Lab. No.	Retailer or Manufacturer.	Acidity.	Solids.	Ash.		Lead Acetate Precipitate.	Color.	Polarization.
				Total.	Alkalinity.			
15853	McNarney Bros., Wabash, Ind.	4.10	2.478	.390	39.0	Heavy	Normal	-.8
16125	Harbaugh Marlesau Co., Toledo	4.76	2.672	.454	22.0	Heavy	Normal	-.4
16150	Williams Bros. Co., Detroit, Mich.	4.56	3.014	.491	32.0	Medium	Normal	-.4
16209	Hirsch Bros., Louisville, Ky.	4.06	3.016	.426	31.0	Medium	Normal	-.4
16210	Hirsch Bros., Louisville, Ky.	4.06	3.066	.415	31.0	Medium	Normal	-1.6
16211	Hirsch Bros., Louisville, Ky.	4.06	3.063	.448	31.0	Medium	Normal	-1.6
16212	Hirsch Bros., Louisville, Ky.	4.06	3.058	.430	31.0	Medium	Normal	-1.6
16213	Hirsch Bros., Louisville, Ky.	4.06	3.046	.428	31.0	Medium	Normal	-1.6
16422	Price & Lucas, Louisville, Ky.	4.04	3.431	.440	31.0	Heavy	Normal	-1.6
16425	Jones Bros. Co., Louisville, Ky.	4.21	3.011	.489	44.0	Medium	Normal	-.8
16426	Jones Bros. Co., Louisville, Ky.	4.28	3.031	.407	44.0	Medium	Normal	-1.6
16429	Knadler & Lucas, Louisville, Ky.	4.06	2.946	.428	33.0	Medium	Normal	-.8
*16448	John Hartman, Logansport	4.28	2.244	.271	33.0	Heavy	Normal	-.6
16454	L. M. Brackett, Rochester	4.30	2.343	.263	24.0	Medium	Normal	-1.6
16500	Hirsch Bros., Louisville, Ky.	4.16	3.181	.382	30.0	Medium	Normal	-.4
16595	C. M. Hill, Braeseeville, Ind.	4.48	2.817	.350	26.0	Heavy	Normal	-0.0
16612	S. F. Curtis & Co., Brazil, Ind.	4.74	2.443	.318	28.0	Medium	Normal	-2.2
16764	Moellerine Bros., Ft. Wayne	4.54	1.672	.247	26.0	Heavy	Normal	-1.6
16850	Huntington Grocery Co., Huntington	4.27	2.564	.334	21.0	Light	Normal	-.8
*17397	W. D. Huffman, Indianapolis, Ind.	4.01	2.311	.211	24.0	Slight	Normal	+0.0
*17344	Bartlett Tea Co., Indianapolis, Ind.	4.04	2.497	.214	21.0	Heavy	Normal	-.2
*17624	F. M. Mueller, Indianapolis, Ind.	4.09	2.212	.322	30.0	Medium	Normal	-1.8
*17881	Robinson Cider & Vinegar Co., Benton Harbor, Mich.	4.40	2.881	.374	28.0	Heavy	Normal	-.6
*17700	Preussing & Co., Chicago, Ill.	4.12	2.432	.328	35.0	Heavy	Normal	-1.2
*17763	J. M. Zion, Clark's Hill, Ind.	3.28	1.627	.291	24.0	Medium	Normal	-.4
*17764	J. M. Zion, Clark's Hill, Ind.	3.27	1.932	.354	29.0	Medium	Normal	-.4
17879	Baldwin & Carey, Muncie	4.22	2.893	.399	44.0	Heavy	Normal	-1.0
17952	Price & Lucas, Louisville, Ky.	4.13	1.940	.279	23.0	Heavy	Normal	-3.6
*18405	South Bend Grocery Co., South Bend	5.24	2.196	.280	23.0	Light	Normal	-1.2
*18503	Kothe, Wells & Bauer, Indianapolis	4.04	2.503	.342	30.0	Heavy	Normal	+0.0
*18516	Levy Hamilton, Greensburg	4.76	1.325	.308	27.0	Medium	Normal	-.8
*18817	Levy Hamilton, Greensburg	4.90	1.970	.334	30.0	Medium	Normal	+0.0
18848	Crutehfield & Son, Boonville	4.31	3.980	.430	42.0	Medium	Normal	+0.0
*18925	Kothe Wells & Bauer, Indianapolis	4.19	2.285	.372	28.0	Heavy	Normal	-2.4
*19003	M. F. Davis, Medora	7.60	3.244	.479	48.0	Light	Normal	-1.6
*19007	Kothe, Wells & Bauer, Indianapolis	4.15	2.461	.334	32.0	Heavy	Normal	-2.8

\*Refers to samples brought to the laboratory.

CIDER VINEGAR—ILLEGAL.

Lab. No.	Retailer or Manufacturer.	Acidity.	Solids.	Ash.		Lead Acetate Precipitate.	Color.	Polarization.
				Total.	Alkalinity.			
*18151	Mrs. Landes, Indianapolis.	2.48	1.308	.365	34.0	Heavy	Normal	- .8
*16172	Kothe, Wells & Bauer, Indianapolis.	3.80	2.032	.312	28.0	Heavy	Normal	- .0
16186	Vigo Com. Co., Terre Haute.	3.74	.725	.718	20.0	Medium	Normal	-1.2
16006	O. P. Damer, Clay City.	4.22	1.624	.134	14.0	Light	Normal	- .6
*16811	LaFayette Grocery Co., LaFayette	4.38	1.078	.141	7.0	None	Normal	+3.2
*16883	Kothe, Wells & Bauer, Indianapolis.	4.84	.453	.132	4.0	Light	Normal	+1.4
*17161	Cruikshank Bros., Pittsburg, Pa.	5.06	2.012	.320	26.0	Medium	Normal	-1.6
*17162	E. B. Mitchell & Co., Sinclairville, N. Y.	5.07	2.731	.217	17.0	Medium	Normal	-1.8
*17163	Kothe, Wells & Bauer, Indianapolis.	3.96	2.656	.245	23.0	Very heavy	Normal	- .2
*17889	Mrs. Bringham, Indianapolis.	2.10						
*17690	F. W. Law, Chicago Ill.	4.05	1.826	.217	22.0	Light	C. W. C.	- .4
*17692	Hulman & Co., Terre Haute.	4.30	1.545	.232	12.0	Light	Normal	- .0
18002	National Grocery Co., South Bend	4.00	1.169	.561	16.0	Heavy	Normal	+1.6
*18008	Brought in by Dr. Bitting, LaFayette	1.03	2.330	.357	32.0	Heavy	Normal	-3.6
*18009	Brought in by Dr. Bitting, LaFayette.	1.60	1.912	.351	32.0	Heavy	Normal	-2.8
*18071	Elliott Grocery Co., Logansport.	4.22	1.161	.101	5.0	None	Normal	+2.0
*18385	J. B. Berteling, South Bend.	4.36	1.605	.115	8.0	Light	Normal	- .4
*18432	N. A. Moore, Indianapolis.	3.33	3.174	.458	26.0	Light	Normal	-1.6
*18747	Henry Dewesse, Kokomo.	3.615						
18765	T. Myers, Roanoke.	4.48	.741	.209	9.0	None	Normal	+1.0
18853	Pierson & Seovill, Boonville	4.64	0.620	.315	0.6	None	Normal	+0.
*18974	G. C. Brinkmeyer, Indianapolis.	2.24	1.583	.191	8.0	Light	Normal	-1.2
*19103	W. S. Frazer, Indianapolis.	1.76						
*19103	W. S. Frazer, Indianapolis.	2.34						
18818	Levy Hamilton, Greensburg.	2.00	1.153	.290	20.0	Medium	Normal	- .0

\*Refers to samples brought to the laboratory by dealer for information as to chocolate.  
 †Colored with chocolate.

DISTILLED VINEGAR.

Thirty-five samples of distilled vinegar were analyzed. content below the standard of 4 per cent. Eight uncolored and of these 15 were classed as illegal because of the acid distilled vinegars all of which were legal, were analyzed.

DISTILLED VINEGAR—LEGAL.

Lab. No.	Retailer or Manufacturer.	Acidity.	Solids.	Ash.		Lead Acetate Precipitate.	Color.	Polarization.
				Total.	Alkalinity.			
18116	A. R. Ewing & Sons, Mitchell.	4.30	.362	.044	4.0	None	Colored	+1.6
16191	E. C. Laughlin, Lyons, Ind.	4.02	2.442	.532	13.0	None	Normal	+1.8
16194	Fred Brough, Lyons.	4.19	2.96	.059	5.0	None	C. W. C.	+1.2
16204	E. W. Gwartney, Linton.	4.18	.286	.051	4.0	None	C. W. C.	+1.4
16205	Lawrence S. Bev, Vincennes.	4.18	.295	.048	4.0	None	C. W. C.	+1.4
16206	A. L. Eberhart, Greensburg.	4.18	.282	.045	4.0	None	C. W. C.	+1.4
16206	A. L. Eberhart, Greensburg.	4.18	.282	.045	4.0	None	C. W. C.	+1.4
16207	Gresham & Keldews, French Lick.	4.18	.285	.049	4.0	None	C. W. C.	+1.4
16208	Davis & King, Princeton	4.18	.286	.046	4.0	None	C. W. C.	+1.4
16428	Jones Bros. Co., Louisville, Ky.	4.30	.285	.043	2.0	None	C. W. C.	-0.0
16430	Knadler & Lucas, Louisville, Ky.	4.01	.421	.039	2.0	None	C. W. C.	+ .8
16497	Schnull & Co.	4.44	.483	.039	2.0	None	C. W. C.	+1.2
16498	Spencer Mfg. Co., Spencer.	4.14	.399	.022	2.0	None	C. W. C.	+ .6
16499	Callahan & Co., LaFayette.	4.03	.141	.020	2.0	None	C. W. C.	- .8
16504	J. M. Evans, Spencer.	4.20	.357	.071	4.0	None	C. W. C.	+ .0
16593	Price & Lucas, Louisville, Ky.	4.16	.267	.026	4.0	None	C. W. C.	+1.0
16605	Bement Rea, Terre Haute.	4.18	.327	.026	4.0	None	C. W. C.	+2.4
16605	Price & Lucas, Louisville, Ky.	4.14	.241	.019	2.0	None	C. W. C.	+2.0
18610	C. Ballinger & Son, Brazil.	4.03	.219	.022	2.0	None	C. W. C.	+1.2
18611	C. Ballinger & Son, Brazil.	4.30	.249	.027	3.0	None	C. W. C.	+2.0
*18705	D. Smith, Kokomo.	4.27						
16849	W. D. Huffman, Indianapolis.	4.14	.274	.037	2.0	None	C. W. C.	+1.6
*17263	Henry Judy, Kokomo.	4.10	.316	.036	1.0	None	C. W. C.	+ .6
17949	Schnull & Co., Indianapolis.	4.72	.482	.035	1.0	None	C. W. C.	.8
*18178	Schafer Bros., LaFayette.	5.12	.882	.098	2.0	None	C. W. C.	+1.4
18462	Chas. W. Lynn, Terre Haute.	4.15	.269	.045	2.0	None	C. W. C.	+1.0
18590	Kothe, Wells & Bauer, Indianapolis.	4.34	.257	.036	1.0	None	C. W. C.	+ .6
*18647	Greentown Canning Co., Greentown.	4.22						
*18663	E. H. Brubaker, New Castle.	4.36	.245	.035	1.0	None	C. W. C.	+1.6
18837	Price & Lucas, Louisville, Ky.	4.70	.356	.061	0.4	Light	C. W. C.	+0.0

\*Refers to samples brought to the laboratory.  
 †Colored with caramel.

UNCOLORED DISTILLED VINEGAR—LEGAL.

Lab. No.	Retailer or Manufacturer.	Acidity.	Solids.	Ash.		Lead Acetate Precipitate.	Polarization.
				Total.	Alkalinity.		
16423	Price & Lucas, Louisville, Ky.	4.22	.253	.060	3.00	None	+ .6
16427	Jones Bros. Co., Louisville, Ky.	4.60	.226	.036	3.05	None	+ .8
16431	Knadler & Lucas, Louisville, Ky.	4.02	.262	.042	3.00	None	+ .4
16503	Hems Co., Pittsburg, Pa.	5.72	.223	.032	3.05	None	+1.4
16504	Price & Lucas, Louisville, Ky.	4.10	.179	.023	3.00	None	+1.0
*18848	S. V. Willentz, Greentown.	4.32					
18850	Hirsch Bros., Louisville, Ky.	4.10	.506	.110	0.60	None	+0.0
18856	Bement-Leitz Co., Evansville.	4.10	.295	.065	0.60	None	+0.0

\*Refers to samples brought to the laboratory.

DISTILLED VINEGAR—ILLEGAL.

Lab. No.	Retailer or Manufacturer.	Acidity.	Solids.	Ash.		Lead Acetate Precipitate.	Color.	Polarization.
				Total.	Alkalinity.			
16501	Home Preserving Co., Indianapolis.	3.63	.212	.013	2.0	None.	C. W. C.	+1.6
16761	S. Bressett, Terre Haute.	2.22	.199	.019	4.0	Light.	C. W. C.	+1.0
16762	Crown Bottling Wks., Terre Haute.	3.72	.230	.024	4.0	None.	C. W. C.	+2.8
18487	D. Smith, Kokomo.	3.68						
16612	Decker Grocery Co., Brazil.	3.93	.234	.034	2.0	None.		+1.9

\*Refers to samples brought to the laboratory.  
 †Colored with chocolate.

PICKLES.

Thirty-five samples of pickles were analyzed, of which 13 were legal and 22 were illegal. The illegal samples were so classed because of the presence of acidity or alum or both.

In two instances samples labeled "malt vinegar used" were, in fact, made with distilled vinegar.

PICKLES—ILLEGAL.

Lab. No.	BRAND.	Manufacturer.	Acidity, Acid Per Cent.	Per Cent. Sodium Benzoate.	Remarks.
13240	Sweet	*Fottlizer Gro. Co., LaFayette.		Present.	Alum present.
14660a	Gold Medal.	Squire Dinger Co., Chicago, Ill.	2.53	.087	
14660b	Gold Medal.	Squire Dinger Co., Chicago, Ill.	2.45	.097	
14661a	Gold Medal.	Squire Dinger Co., Chicago, Ill.	2.64	None.	Alum present.
14661b	Gold Medal.	Squire Dinger Co., Chicago, Ill.	1.82	None.	Alum present.
14661c	Gold Medal.	Squire Dinger Co., Chicago, Ill.	2.02	.169	
14662	Gold Medal.	Squire Dinger Co., Chicago, Ill.	1.71	.100	
14667	Dodson-Braun.	Dodson Braun Co., St. Louis, Mo.			Label—"Malt vinegar used." Used distd.
14671	American Style.	Dodson Braun Co., St. Louis, Mo.			Label—"Malt vinegar used." Used distd.
14673	American Sweet.	Dodson Braun Co., St. Louis, Mo.	2.47	Present.	Label—"Malt vinegar used." Used distd.
14697	Sv. Gherkins.	Williams Bros. Co., Detroit, Mich.	2.12	.126	
14721	Sv. Gherkins.	Williams Bros. Co., Detroit, Mich.	2.52	.144	
14724	American Sweet.	Dodson Braun Co., St. Louis, Mo.		Present.	Used distilled vinegar instead of malt.
14754	Magic City.	Squire Dinger Co., Chicago, Ill.	2.668	None.	Alum.
14757	Gherkins.	Williams Bros. Co., Detroit, Mich.	2.84	.116	
14758	Gherkins.	Williams Bros. Co., Detroit, Mich.	2.46	.117	
15092	Sweet.	Williams Bros. Co., Detroit, Mich.		.049	
15385		Williams Bros. Co., Detroit, Mich.	2.40	.112	
15386		Williams Bros. Co., Detroit, Mich.	3.27	.099	
17886	Williams.	Williams Bros. Co., Detroit, Mich.		.115	.326 aluminum sulphate.
17993	Sour Spiced Gherkins.	Williams Bros. Co., Detroit, Mich.		None.	.414 aluminum sulphate.
17994	Sweet Gherkins.	Williams Bros. Co., Detroit, Mich.		.132	.358 aluminum sulphate.

RESULT OF ANALYSIS OF DRUG SAMPLES.

DRUGS.

The work of the Drug Laboratory during the year has followed the same line as heretofore and has been largely confined to the analysis of miscellaneous samples collected throughout the state by the inspectors. Four hundred and forty-four samples were analyzed, of which 242 were classed as legal and 202, or 45.4 per cent., as illegal. The illegal list is swelled somewhat by the inclusion of mislabeled and mis-branded samples. While the druggists are usually careful to declare the alcohol and narcotic content of these preparations, occasional samples come into the laboratory which are not so labeled and which must be classed as adulterated. Much time has been spent upon the assay of tinctures and fluid extracts. These results have already been reported in the Monthly Bulletin and need not here be repeated.

ARTICLE EXAMINED.	Legal.	Illegal.	Total.	Per Cent. of Adulteration.
Alcohol	2	0	2	0.0
Asthma cure	1	1	2	50.0
Bay rum	1	0	1	0.0
Beeswax—white	1	1	2	50.0
Beeswax—yellow	1	0	1	0.0
Bismuth subnitrate	1	0	1	0.0
Carbolic acid	1	0	1	0.0
Castor oil	8	0	8	0.0
Cough syrup	2	0	2	0.0
Cream tartar	1	0	1	0.0
Essence Jamaica ginger	4	1	5	20.0
Essence peppermint	1	1	2	100.0
Fluid extract belladonna	6	7	13	53.8
Fluid extract hyocyanus	5	7	12	58.3
Glycerin	2	0	2	0.0
Linseed oil	17	4	21	19.0
Lime water	1	0	1	0.0
Olive oil	14	1	15	6.6
Paragoric	36	20	56	34.4
Potassium nitrate—commercial	4	0	4	0.0
Quinine sulphate capsules	2	0	2	0.0
Sulphur—flowers	3	0	3	0.0
Spirit of camphor	28	64	92	69.5
Spirit of turpentine	2	0	2	0.0
Sweet spirit of nitre	0	2	2	100.0
Tincture arnica	6	1	7	14.2
Tincture benzoin	1	0	1	0.0
Tincture capsicum	2	2	4	50.0
Tincture iodine	26	46	72	63.8
Tincture iron	17	16	33	48.4
Tincture myrrh	2	0	2	0.0
Tincture opium	16	13	29	44.8
Tincture opium deodorized	8	9	17	52.9
Witchhazel	1	0	1	0.0
Miscellaneous drugs	18	6	24	25.0
<b>Total</b>	<b>242</b>	<b>202</b>	<b>444</b>	<b>45.4</b>



CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES FOR OCTOBER, 1910.

**NORTHERN SANITARY SECTION.**

Total population	954,042
Total deaths	932
Death rate per 1,000	11.5
Consumption, rate per 100,000	105.1
Typhoid, rate per 100,000	65.5
Diphtheria, rate per 100,000	9.8
Scarlet fever, rate per 100,000	6.1
Diarrheal diseases, rate per 100,000	84.1

**CENTRAL SANITARY SECTION.**

Total population	1,143,900
Total deaths	1,116
Death rate per 1,000	11.5
Consumption, rate per 100,000	109.3
Typhoid, rate per 100,000	69.8
Diphtheria, rate per 100,000	15.4
Scarlet fever, rate per 100,000	4.1
Diarrheal diseases, rate per 100,000	70.1

**SOUTHERN SANITARY SECTION.**

Total population	722,593
Total deaths	713
Death rate per 1,000	17.6
Consumption, rate per 100,000	122.4
Typhoid, rate per 100,000	78.3
Diphtheria, rate per 100,000	37.5
Scarlet fever, rate per 100,000	3.2
Diarrheal diseases, rate per 100,000	86.5

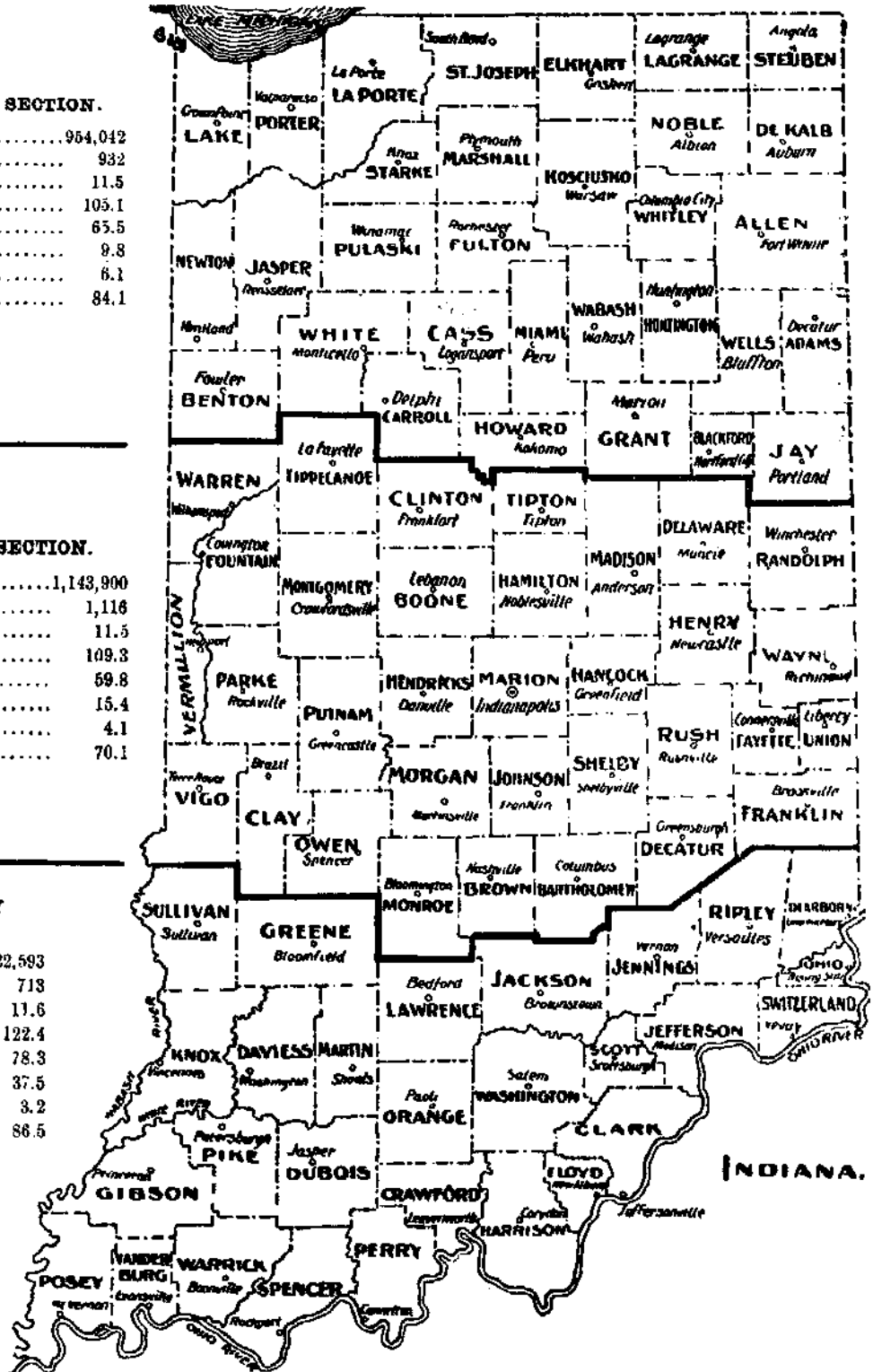


TABLE 1. Deaths in Indiana by Counties During the Month of October, 1910.

STATE AND COUNTIES.	Population according to 34 times School Census, 1910.	Total Deaths Reported for October 1910, Excluding Stillborns.	Annual Death Rate per 1,000 Population.	Stillborns.	Important Ages.					Deaths from Important Causes.																			
					Under 1 Year.	1 to 4, inclusive.	5 to 9, inclusive.	10 to 14, inclusive.	15 to 19, inclusive.	65 Years and over.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Malaria.	Whooping-Cough.	Lobar and Broncho Pneumonia.	Diarrheal Diseases, under 5.	Cerebro-Spinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.	Violence.	Smallpox.	Deaths in Institutions.		
					500	274	72	59	81	754	266	60	158	48	5	11	3	27	143	189	9	8	14	146	182			225	
State of Indiana.....	2,820,535	2,761	11.5	123	500	274	72	59	81	754	266	60	158	48	5	11	3	27	143	189	9	8	14	146	182			225	
<b>Northern Counties.</b> .....	<b>954,042</b>	<b>932</b>	<b>11.5</b>	<b>57</b>	<b>186</b>	<b>65</b>	<b>29</b>	<b>22</b>	<b>23</b>	<b>258</b>	<b>85</b>	<b>11</b>	<b>63</b>	<b>8</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>7</b>	<b>47</b>	<b>68</b>	<b>5</b>	<b>3</b>	<b>8</b>	<b>48</b>	<b>58</b>			<b>71</b>	
Adams.....	25,452	24	11.1	1	3	1	1	3	5	4	1	1	1																
Allen.....	89,936	86	11.2	3	22	1	1	3	22	12	1	1	1																24
Benton.....	12,320	9	8.6	2	2				3	3																			
Blackford.....	16,232	18	11.0	7	3				2	2	1	1																	
Carroll.....	18,888	20	12.5	6	6				5	5																			
Cass.....	37,576	41	12.8	2	4				14	14																			8
Decatur.....	24,563	39	18.7	4	4				14	14																			
Elkhart.....	49,616	50	11.8	2	6				5	5																			3
Fulton.....	20,801	15	8.5	1	1				5	5																			
Grant.....	60,982	62	11.9	2	16				20	20																			11
Howard.....	30,731	40	15.3	4	4				7	7																			
Huntington.....	32,821	16	5.7	1	1				2	2																			
Jasper.....	14,469	6	4.8	2	2				3	3																			
Jay.....	27,156	21	9.1	2	5				6	6																			
Kosciuskn.....	28,189	20	10.8	3	2				14	14																			
Lagrange.....	15,448	21	16.0	3	3				6	6																			
Lake.....	69,282	84	14.3	10	29				7	7																			8
Laporte.....	56,007	31	6.5	3	7				10	10																			
Marshall.....	25,067	29	13.6	1	3				16	16																			
Miami.....	31,417	38	14.6	1	1				18	18																			
Newton.....	10,612	10	11.1	3	3				4	4																			
Noble.....	22,627	16	8.3	1	1				7	7																			
Porter.....	20,965	22	12.3	4	4				9	9																			
Pulaski.....	15,928	11	8.1	1	2				3	3																			
Starke.....	12,404	6	5.7	1	1				2	2																			
Steuven.....	13,359	17	15.0	1	1				1	1																			
St. Joseph.....	79,579	104	15.4	14	20				24	24																			9
Wabash.....	30,358	33	12.8	3	8				8	8																			
Wells.....	24,234	15	7.3	1	4				4	4																			
White.....	20,500	8	4.5	3	3				1	1																			
Whitley.....	16,922	13	9.0		1				1	1																			
<b>Central Counties.</b> .....	<b>1,143,800</b>	<b>1,118</b>	<b>11.5</b>	<b>68</b>	<b>181</b>	<b>77</b>	<b>22</b>	<b>20</b>	<b>40</b>	<b>312</b>	<b>106</b>	<b>28</b>	<b>58</b>	<b>15</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>8</b>	<b>65</b>	<b>68</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>62</b>	<b>67</b>			<b>121</b>	
Bartholomew.....	26,338	24	10.7	8	4				1	9	3	1																	
Boone.....	24,475	22	10.6	1	4				1	11	2	1																	
Brown.....	10,034	14	16.4	4	3				5	5																			
Clay.....	37,180	35	11.1	1	7				7	7																			
Clinton.....	27,478	27	11.5	1	6				11	11																			
Decatur.....	18,147	18	11.7	1	2				7	7																			
Delaware.....	66,999	48	8.4	4	11				12	12																			
Fayette.....	12,271	15	14.4	1	2				4	4																			
Fountain.....	19,374	25	15.3	2	3				8	8																			
Franklin.....	15,743	11	8.2	2	6				1	1																			
Hamilton.....	28,591	34	14.0	3	2				12	12																			
Hancock.....	19,211	17	10.4	3	1				2	2																			
Hendricks.....	20,447	18	10.3	2	3				8	8																			
Henry.....	29,900	22	8.6	2	3				12	12																			
Johnson.....	19,733	18	10.7	4	5				3	3																			
Madison.....	67,846	60	8.0	6	15				17	17																			
Marion.....	274,743	326	14.0	13	50				17	6	6	8																	
Monroe.....	23,254	18	9.1	1	4				10	10																			
Montgomery.....	27,146	19	8.2	2	3				2	2																			
Morgan.....	22,421	19	9.9	1	3				6	6																			
Owen.....	15,372	10	7.6						2	2																			
Parke.....	22,876	13	3.6	4	1				1	1																			
Putnam.....	20,037	13	7.6	1	3				4	4																			
Randolph.....	28,298	32	13.3	1	6				15	15																			
Rush.....	17,615	11	7.3	3	1				4	4																			
Shelby.....	25,347	25	11.6	1	1				9	9																			
Tipton.....	39,522	38	11.3	2	2				14	14																			
Union.....	16,609	14																											



Mortality of Indiana for October, 1910.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Population, Estimated According to 34 times School Census, 1910.	Total Deaths Reported for August, 1910. (Stillbirths excluded.)	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages.												Deaths and Annual Death Rates per 100,000 Population from Important Causes.							
					Under 1.		1 to 5.		5 to 10.		10 to 15.		15 to 20.		65 and Over.		Pulmonary Tuberculosis.		Other Forms Tuberculosis.		Typhoid Fever.		Diphtheria.	
					Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
State.....	2,820,535	2,761	11.5	123	500	18.1	214	7.8	72	2.6	50	1.8	81	2.9	754	27.3	298	111.2	60	25.1	190	66.9	46	19.2
Northern Counties.....	954,042	932	11.5	37	198	20.1	65	6.9	29	3.1	22	2.3	25	2.6	256	27.4	85	106.1	11	13.6	53	65.5	8	9.8
Central Counties.....	1,143,900	1,118	11.5	66	181	16.2	77	6.9	32	1.9	20	1.7	40	3.5	312	27.6	106	109.3	28	28.8	58	59.8	15	15.4
Southern Counties.....	722,593	713	11.6	50	131	18.3	72	10.0	21	2.9	10	1.4	18	2.2	186	26.0	75	122.4	21	24.2	48	78.3	23	37.5
All Cities.....	1,149,608	1,330	13.6	101	243	18.2	92	6.9	35	2.6	26	1.9	45	3.3	311	23.3	113	136.5	26	26.6	64	65.6	20	20.5
Over 50,000.....	480,717	576	14.1	42	95	16.5	37	6.4	15	2.6	12	2.0	13	2.2	112	19.4	61	149.7	13	31.9	26	63.8	6	14.7
25,000 to 50,000.....	88,368	61	8.1	7	17	27.5	3	4.9	2	3.2	1	1.8	.....	.....	9	14.7	5	66.8	.....	.....	3	40.0	1	13.3
10,000 to 25,000.....	281,889	311	13.0	25	58	18.6	25	8.0	10	3.2	5	1.6	27	8.7	75	24.1	31	129.7	6	25.1	14	58.6	6	25.1
5,000 to 10,000.....	151,568	200	15.5	21	46	23.0	13	6.5	7	3.5	2	1.0	2	1.0	55	27.5	17	132.3	4	31.1	10	77.8	2	15.5
Under 5,000.....	147,128	162	14.5	6	27	14.8	14	7.7	1	5.5	2	3.3	3	1.6	60	32.9	19	152.3	3	28.0	11	88.2	5	40.1
Country.....	1,670,927	1,431	10.1	22	257	17.9	122	8.5	37	2.5	24	1.6	36	2.5	443	30.9	133	93.9	34	24.0	95	67.0	26	18.3

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Deaths and Annual Death Rates per 100,000 Population from Important Causes.																							
	Croup.		Scarlet Fever.		Measles.		Whooping-Cough.		Lobar and Broncho Pneumonia.		Diarrheal Diseases. Under Five.		Cerebro Spinal Meningitis.		Influenza.		Puerperal Septicemia.		Cancer.		Violence.		Smallpox.	
	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
State.....	6	2.0	11	4.8	3	1.2	27	11.2	143	50.8	189	79.0	9	3.7	8	3.3	14	8.8	148	61.9	182	76.1	.....	.....
Northern Counties.....	1	1.2	5	6.1	1	1.2	7	8.6	47	58.1	68	84.1	5	6.1	3	3.7	8	9.8	48	59.3	58	71.7	.....	.....
Central Counties.....	1	1.0	4	4.1	1	1.0	9	9.2	65	67.9	68	70.1	1	1.0	2	2.0	3	3.0	83	63.9	87	89.7	.....	.....
Southern Counties.....	3	4.8	2	2.2	1	1.6	11	17.9	31	50.6	53	86.5	3	4.8	3	4.8	9	4.8	36	62.8	37	60.4	.....	.....
All Cities.....	3	3.0	7	7.1	.....	.....	9	8.2	92	94.4	62	64.1	3	3.0	5	5.1	9	9.2	75	76.9	103	105.7	.....	.....
Over 50,000.....	.....	.....	3	7.3	.....	.....	3	7.3	42	103.0	29	71.1	.....	.....	1	2.4	3	73	82	78.5	54	132.6	.....	.....
25,000 to 50,000.....	.....	.....	.....	.....	.....	.....	.....	.....	3	66.8	5	66.8	.....	.....	1	13.3	.....	.....	4	33.4	.....	26.7	.....	.....
10,000 to 25,000.....	2	8.3	4	16.7	.....	.....	4	16.7	25	104.6	18	75.3	.....	.....	2	8.3	.....	.....	13	54.4	22	113.0	.....	.....
5,000 to 10,000.....	1	7.7	.....	.....	.....	.....	2	15.5	14	108.9	17	132.3	.....	.....	.....	.....	.....	.....	11	85.6	15	116.7	.....	.....
Under 5,000.....	.....	.....	.....	.....	.....	.....	.....	.....	6	48.1	13	104.2	.....	.....	.....	.....	.....	.....	15	120.3	5	40.1	.....	.....
Country.....	2	1.4	4	2.8	3	2.1	18	12.7	51	36.0	107	75.5	.....	.....	3	2.1	5	3.5	73	51.5	170	126.4	.....	.....

U. S. Department of Agriculture, Weather Bureau. Condensed Summary for Month of October, 1910.

V. H. CHURCH, SECTION DIRECTOR, INDIANAPOLIS, IND.

TEMPERATURE—IN DEGREES FAHRENHEIT.

Section average.	Departure from the normal.	Extremes.							
		Station.		Highest.	Date.	Station.			
		Lowest.	Date.	Lowest.	Date.				
57.4	-2.8	Rome.....	.....	92	1	Judyville.....	.....	15	29

PRECIPITATION—IN INCHES AND HUNDREDTHS.

Section average.	Departure from the normal.	Extremes.					
		Station.		Greatest monthly amount.	Least monthly amount.		
		Station.	Station.	Station.	Station.		
5.31	-9.06	Evansville.....	.....	11.19	Huntington.....	.....	1.81