

United States Department of Agriculture,

OFFICE OF THE SECRETARY.

NOTICE OF JUDGMENT NO. 2516.

(Given pursuant to section 4 of the Food and Drugs Act.)

U. S. v. Charles G. Dade. Tried to the court: Finding of guilty. Fine, \$50.

ADULTERATION OF MILK.

On June 15, 1912, the United States Attorney for the District of Columbia, acting upon a report by the Secretary of Agriculture, filed in the Police Court of said District an information against Charles G. Dade, Washington, D. C., alleging the sale by said defendant, on February 27, 1911, at the District aforesaid, in violation of the Food and Drugs Act, of a quantity of milk which was adulterated. The product bore no label.

An analysis of a sample of the product by the Bureau of Chemistry of this Department showed the following results: Temperature at time of collection, 44.6° F.; number of bacteria per cc on ordinary agar at 37° C., 24 hours, 4,500,000; number of bacteria per cc on ordinary agar at 25° C., 48 hours, 89,400,000; number of colonies of colon group per cc, 85,000; streptococci per cc, 10,000; acid colonies per cc, litmus lactose, innumerable. Adulteration of the product was alleged in the information for the reason that it consisted "in whole and in part of a filthy, decomposed and putrid animal and vegetable substance."

On June 19, 1912, the case having come on for trial before the court, without the intervention of a jury, a finding of guilty was made by the court, and a fine of \$50 was imposed. Defendant thereupon, by his attorney, moved for a new trial, and on October 12, 1912, said motion was overruled, without comment, by the court. Thereafter defendant sued out a writ of error to the Court of Appeals of the District of Columbia to set aside the judgment rendered and

sentence pronounced by said Police Court, and on February 25, 1913, the case having come on for a hearing before said Court of Appeals, the judgment of the Police Court was affirmed by the Court of Appeals, as will more fully appear from the following opinion, delivered by the court (Van Orsdel, *J.*):

This case is here in error to the Police Court of the District of Columbia. Plaintiff in error was convicted of violating the following provision of the Pure Food and Drugs Act: "Sec. 7. That for the purposes of this Act, an article shall be deemed to be adulterated * * * in the case of food * * * Sixth. If it consists in whole or in part of a filthy, decomposed, or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or one that has died otherwise than by slaughter." 34 Stats. L., 770. The information charged him with unlawfully offering for sale and selling adulterated milk, "in that it did consist in whole and in part of a filthy, decomposed and putrid animal and vegetable substance."

The facts established by the evidence are that "On February 27, 1911, a pint bottle of milk was purchased from one of the defendant's wagons, and taken to the laboratory of the Bacteriological Bureau of the Health Department, where it was analyzed, and found to contain 4,500,000 bacteria on ordinary agar, thirty-seven degrees Centigrade, grown twenty-four hours, and 89,400,000 bacteria per cubic centimeter, on ordinary agar, twenty-five degrees Centigrade, grown forty-eight hours. It contained 83,000 bacteria per cubic centimeter of the colon group. It showed gas fermentation in one ten thousandth of a cubic centimeter, approximately fifteen drops and one streptococcus to one ten thousandth of a cubic centimeter.

It appears that the bacterium known as *B. Coli* or colon bacillus originates in and is a normal constituent of the colon of all warm blooded animals, is discharged in the excreta and found in milk as the result of fecal contamination. When present in milk, it always occurs from either direct or indirect fecal deposit therein; directly from carelessness in permitting particles of feces to get into the milk during the process of extracting the milk from the cow, or in handling it afterwards; indirectly, from dust, vegetation, water and air, where the bacillus is found,—originally derived, however, from animal feces. The evidence discloses the study of the science to be that colon bacillus is a vegetable formation originating in animal intestines, and nowhere else. It is not found in air, dust, water or vegetation under conditions indicating different origin or its original derivation from the substance with which it is thus associated. Under favorable conditions, colon bacillus will multiply and develop in milk with great rapidity. The present analysis in the light of the evidence reveals the presence of the colon bacillus to have resulted from a direct deposit of feces in the milk, due to uncleanly methods of handling the milk.

It appears that the streptococcus is associated frequently with the colon bacillus in the colon of warm blooded animals, and is discharged in the excreta. It is also found in diseased processes of animals,—in boils on human beings, or in abscesses in animals, and in diseased tissues and intestines. While milk may be perfectly sterile in the udder of a healthy cow, streptococci may be found in milk taken from a diseased udder. It, however, may be regarded as strongly conclusive that where colon bacilli and streptococci are found together in large numbers and under the circumstances here shown, they originate directly from fecal matter. They are not found in milk as it flows from a healthy animal. Their presence in milk, originally pure, indicates contamination from an outside source,—as to colon bacillus, always fecal contamination; and usually the same as to streptococcus. Streptococcus may also come from a diseased condition of the cow or from persons handling the milk, but its presence was not so accounted for in this case.

It also appears that the growth of bacteria invariably results in the chemical and natural decomposition of the substance in which they grow. Milk is an animal substance, and bacteria are a vegetable formation in the milk. The bacteria develop and die in rapid succession, causing natural decomposition. Colon bacilli and streptococci destroy the sugar in milk, which is broken up into various acids and gases, thus causing chemical decomposition. For example, sour milk is described as decomposed milk, and may be caused by

the action of bacteria. The decomposition of milk sugar into lactic acid is a chemical process that causes milk to sour.

This case was not prosecuted upon the assumption that bacteria, as living vegetable organisms, are in themselves either filthy, decomposed, or putrid; but upon the theory, as fully sustained by the evidence, that the bacteria constantly develop and die, causing filthy vegetable decomposition; that the colon bacilli and streptococci found in the milk establish the presence of fecal matter; that streptococci, especially, are a menace to health; that whether the streptococci came into the milk through fecal deposit, from a diseased condition of the cow or of those handling the milk, the vice is the same, and that these two groups of bacteria, especially, cause decomposition of the milk.

The Pure Food and Drugs Act is a police regulation enacted to conserve the public health. It will be construed liberally to meet the evils intended to be embraced within its provisions. *United States v. Corbett*, 215 U. S., 233; *District of Columbia v. Gardiner*, ——— App., D. C., ——— (Present Term); *Galt v. United States*, ——— App., D. C., ——— (Present Term). We are not unmindful of the rule that police regulations to be valid must be reasonable, necessary, and not unduly oppressive. The law-making power, in their enactment, takes into consideration the public sentiment of the community as a measure of the degree of regulation to which private property shall be subjected for the public good, and nowhere do the courts so completely reflect the side of public opinion as in deciding cases involving the exercise of the police power. Measures looking to the public welfare are no longer tested by the strict letter of the Constitution. Doubtless many modern expressions of the legislative will, in the exercise of its police power, would have been held unconstitutional if enacted at an earlier period. But public opinion, keeping pace with an advancing civilization, is the progressive factor which calls for an enlarged invasion of private rights for the public good, and which prompts courts to give greater elasticity to Constitutional limitations. In flexibility of construction lies the possibility of progress and the vitality of the Constitution. Therefore, some of the technical distinctions cited to be applied by counsel for plaintiff in error in construing the Act before us may be disposed of by the suggestion that the food offered for sale in a filthy, decomposed and putrid condition, caused either from an inherent condition, or external substance; or "consisting of" or containing filthy, decomposed or putrid matter; or containing a foreign substance, neither filthy, decomposed nor putrid in itself, but which causes the food from contact with it to decompose or become filthy or putrid, will be held to come within the Act. It is beyond dispute that the milk, when taken from the wagon of plaintiff in error in the condition in which it was being sold to his customers, was both filthy and decomposed.

It is urged that since it is impossible to produce milk entirely free from bacteria, the statute imposes a duty impossible of performance, and cannot, therefore, be applied to milk; or, if possible of performance, it could only be complied with at so great a cost as to result in the destruction and confiscation of the business. It is not clear from the evidence that the enforcement of the Act will produce this result. The present case does not present this difficulty, except in theory; since the contamination was so great as to place it within the statute beyond the domain of speculation. Not only did the milk in question contain bacteria of the colon group, but, as incident thereto, fecal matter, all of which, it appears, may be eliminated by the adoption of cleanly methods in handling the milk. In fact, it appears that samples from the dairy of plaintiff in error have been analyzed, which were free from bacteria of the colon group. One witness testified that he "has encountered milk, samples of raw milk and samples of pasteurized milk, free from bacteria of the colon; has seen samples of defendant's that did not contain them, milk sold as raw milk and analyzed on that assumption."

We are not dealing with a regulation relating to milk alone, but with an act generally regulating the sale of food products. Milk is a food product; and, if found to be impure, it will be held to be "adulterated" within the provisions of the Act. There is evidence that it is impossible to produce raw milk which does not contain bacteria; that a limited number of bacteria in milk are practically harmless, and also that certain kinds of bacteria are, in fact, harmless. It is unnecessary to decide whether, under such circumstances, milk would be held to come within the Act, since in the present case, adulteration is clearly established. The dividing line between pure and impure or

adulterated food is in each instance a question of fact; but, because of the scientific distinctions involved, and the impossibility of producing raw milk entirely free from bacteria, it may be much more difficult of ascertainment in the case of milk than of other food products. Owing to the great difficulty which may be encountered in justly enforcing the law, in the absence of a fixed standard defining what is marketably pure and impure milk, in a case where the adulteration consists alone in the presence of comparatively small numbers of so-called harmless bacteria, it may well be that Congress should give attention to this subject, as has been done in many of the States, and establish a fixed standard for marketable milk, whereby milk found to contain a greater number of bacteria than that fixed by the act should come within the condemnation of the law. With the fact scientifically demonstrated that contaminated milk is a dominating factor in the propagation of tuberculosis, typhoid fever, scarlet fever, diphtheria, infantile diarrhea, and other diseases, the subject, in importance, is one of the first magnitude.

The judgment is affirmed with costs, and it is so ordered.

Affirmed.

B. T. GALLOWAY,
Acting Secretary of Agriculture.

WASHINGTON, D. C., *May 21, 1913.*