

# United States Department of Agriculture,

OFFICE OF THE SECRETARY.

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## NOTICE OF JUDGMENT NO. 2549.

SUPPLEMENT TO NOTICE OF JUDGMENT NO. 722.

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

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**U. S. v. 625 Sacks Bleached Flour. Decree of condemnation, forfeiture, and destruction of the District Court of the United States for the Western District of Missouri reversed by the Circuit Court of Appeals for the Eighth Circuit, and case remanded for a new trial. Pending on writ of certiorari in the Supreme Court of the United States.**

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### ALLEGED ADULTERATION AND MISBRANDING OF BLEACHED FLOUR.

On July 22, 1910, the Lexington Mill & Elevator Co., claimants of the 625 sacks of bleached flour that had been found adulterated and misbranded by a jury in the District Court of the United States for the Western District of Missouri, filed notice of appeal by writ of error or appeal or both, to the United States Circuit Court of Appeals for the Eighth Circuit, from the final decree entered in the case on July 6, 1910, in said District Court.

On January 23, 1913, the case having come on for hearing before the Circuit Court of Appeals for the Eighth Circuit, the judgment below was reversed and the case remanded for a new trial, as will more fully appear from the following decision delivered by the Court (Marshall, *D. J.*):

The Lexington Mill and Elevator Company is a corporation of the State of Nebraska and is engaged in the manufacture of flour at Lexington, Nebraska. On April 1, 1910, it shipped from Lexington to B. O. Terry at Castle, Missouri, six hundred and twenty-five sacks of flour manufactured by it. On April 9, 1910, a libel was filed by the United States under the provisions of Sec. 10 of the Food and Drugs Act, 34 Stat. 768, and a warrant of seizure issued, by virtue of which the flour was seized under the claim that it was adulterated and misbranded in violation of the provisions of that Act. The Lexington Mill & Elevator Company appeared as claimant. It averred that it had sold the flour under a guarantee that it was not adulterated within the meaning of the Food and Drugs Act, and that pursuant to that guarantee it had furnished to

the purchaser other flour in lieu of that seized, and had become the owner of the flour in litigation. It was permitted to answer the libel and the case was then tried to a court and jury with the result that the United States had a verdict that the flour was adulterated and misbranded. From the judgment of condemnation rendered on this verdict the claimant prosecutes an appeal and a writ of error. A motion is made to dismiss the appeal and this must be sustained.

The act under which this libel was filed provides in Sec. 10 for the process of libel for condemnation and that "The proceedings of such libel cases shall conform, as near as may be, to the proceedings in admiralty, except that either party may demand a trial by jury of any issue of fact joined in any such case, and all such proceedings shall be at the suit of and in the name of the United States." This did not change the essential character of the action or make it other than an action at law. As a matter of procedure it has to conform "as near as may be to proceedings in admiralty," but a trial by jury at the demand of either party is provided, and a review of the facts so tried by appeal was not expressly granted. The question as to the proper method of review was decided in this Court in the case of *United States v. Seven Hundred and Seventy-nine Cases of Molasses* (174 Fed. 325). The Supreme Court of the United States has had occasion to pass on the principle involved in cases arising under the Act of July 17, 1862, entitled "An Act to suppress insurrection, to punish treason and rebellion, to seize and confiscate the property of rebels, and for other purposes," which provided that the proceedings against the property seized shall be *in rem* and "shall conform as nearly as may be to proceedings in admiralty or in revenue cases." That court held that a writ of error was the only method of review. The appeal in No. 3534 will be dismissed and jurisdiction will be taken of the writ of error in No. 3533.

Before a consideration of the questions arising on the writ of error a more complete statement of the facts is necessary. The claimant in the manufacture of the flour seized uses the Alsop patented process. A complete description of this process may be found in the opinion of this Court in *Naylor v. Alsop Process Co.* (168 Fed. 911). It is sufficient for the present purpose to say that by it nitrogen peroxide gas is formed by electric discharges. This gas mixed with air is brought into contact with the freshly milled flour, with the result of bleaching it. The method is this; in a small chamber one electrode is fixed; the other is given a reciprocating motion so as to alternately touch and separate from the fixed electrode. A current of high potential is used. The circuit is completed by the contact. Separation of the electrodes results in an arc. The inert nitrogen of the air is oxidized and nitrogen peroxide gas formed. This gas diluted by mixture with air is conveyed to a box or agitator, through which the flour is permitted to fall and the bleaching is at once effected. The chemical reaction seems to be as follows: The nitrogen peroxide gas coming in contact with the moisture of the flour, splits and forms nitric and nitrous acids, both oxidizing agents, but the nitric acid the more powerful. The nitric acid certainly and the nitrous acid probably unite with the coloring matter of the flour and bleach it. Nitrites are formed by the union of the nitrous acid with the bases in the flour and nitrates by the union of the nitric acid with those bases. The nitrates may be disregarded as non-injurious; the nitrites are claimed to be poisonous. The flour seized was subjected to the Griess-Ilsovay test, an extremely delicate test for the detection of the presence of nitrites and was shown to contain nitrites or material reacting as nitrites to the amount of three parts per million. The misbranding is predicated on this. The sacks containing the flour were labeled "L 48, Lexington cream XXXXXX, fancy patent.

This flour is made of first quality hard wheat." In fact, the flour was milled from Turkey red wheat. This wheat replanted from year to year gradually degenerates and becomes mixed with a wheat of a yellow color, called locally "yellow berry." This admixture with yellow berry deteriorates the quality of the wheat. The wheat in question contained this yellow berry to the extent of from fifteen to twenty-five per cent of its total quantity. Both Turkey red and yellow berry are hard wheats. This wheat graded as No. 2, and this was the best grade of wheat grown or milled in Nebraska or neighboring states. In other sections of the country wheat grading as No. 1 is grown. There can be milled from the same wheat flour of different grades. That flour which contains the entire flour content of the berry is called "straight flour"; patent flour excludes a part of the flour content; that part of the berry nearest the bran coat containing the greater part of the oil and coloring matter. Clear flour is the residue of the flour content of the wheat after taking out the patent flour. The result is that patent flour is whiter than straight and straight is whiter than clear flour.

The jury found separate verdicts, (1) that the flour seized was adulterated, and (2) that it was misbranded. The Court charged the jury: "It is clear that it was intended by Congress to prohibit the adding to the food of any quantity of the prohibited substance. The fact that poisonous substances are to be found in the bodies of human beings, in the air, in potable water and in articles of food such as ham, bacon, fruits, certain vegetables and other articles does not justify the adding of the same or other poisonous substances to articles of food, such as flour, because the statute condemns the adding of poisonous substances. Therefore, the court charges you that the Government need not prove that this flour or food stuffs made by the use of it, would injure the health of any consumer. It is the character, not the quantity of the added substance, if any, which is to determine this case." This was excepted to and was assigned as error. There was evidence tending to prove that flour containing the percentage of nitrites found in the seized flour, might be injurious to health when used as a food for a considerable period, but this was disputed, and the converse supported by substantial testimony. This was the most stubbornly contested issue in the case, and that it was an issue was recognized by the Government at all stages of the trial.

The part of the statute material to a consideration of the correctness of this instruction is found in Sec. 7 of the Act, which reads:

"Sec. 7. That for the purposes of this act an article shall be deemed to be adulterated: \* \* \* \*

"In the case of food:

"First. If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength.

"Second. If any substance has been substituted wholly or in part for the article.

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

"Fourth. If it be mixed, colored, powdered, coated, or stained in a manner whereby damage or inferiority is concealed."

"Fifth. If it contain any added poisonous or other added deleterious ingredients which may render such article injurious to health \* \* \* \*."

The instruction complained of referred to the charge in the libel under the fifth subdivision just quoted. The trial judge decided that if the added substance was qualitatively poisonous although in fact added in such minute quantity as to be non-injurious to health that it still fell under the ban of the

statute; and the distinction is sought to be drawn between substances admittedly poisonous when administered in considerable quantities but which serve some beneficial purpose when administered in small amounts, and those substances which it is claimed never can benefit and which in large doses must injure. The distinction is refined. To apply it must presuppose that science has exhausted the entire field of investigation as to the effect upon the human body of these various substances; that nothing remains to be learned. Otherwise the court would be required to solemnly adjudge today that a certain substance is qualitatively poisonous because it can never serve a useful purpose in the human system only to have this conclusion made absurd by some new discovery. There is no warrant in the statute for such a strained construction. The object of the law was evidently (1) to insure to the purchaser that the article purchased was what it purported to be, and (2) to safeguard the public health by prohibiting the inclusion of any foreign ingredient deleterious to health. *Hall-Baker Grain Co. v. United States* (198 Fed. 614). The statute is to be read in the light of these objects, and the words "injurious to health" must be given their natural meaning. It will be observed that this paragraph of the statute does not end with the words "added deleterious ingredient" but as a precaution against the idea embodied in the instruction complained of, it says "which may render such article injurious to health." Without these latter words, it might, with more force, be argued that deleterious and beneficent ingredients are to be divided into two general classes independent of their particular effect in the actual quantities administered, but the possibility of injury to health due to the added ingredient and in the quantity in which it is added, is plainly made an essential element of the prohibition. The investigation does not stop with the consideration of the poisonous nature of the added substance. It is added to the article of food and the statute only prohibits it if it may render such article—the article of food—injurious to health.

In *French Silver Dragee Co. v. United States* (179 Fed. 824), this question was considered by the Court of Appeals of the Second Circuit. In that case adulteration was charged in confectionery by the addition of silver. The article in question was made of sugar and thinly coated with pure silver. The statute declares that confectionery shall be deemed to be adulterated "if it contain terra alba, barytes, talc, chrome yellow, or other mineral substance or poisonous color or flavor, or other ingredient deleterious or detrimental to health, or any vinous, malt, or spirituous liquor or compound or narcotic drug." The element of injury to health is not expressed as a qualification of mineral substance. Silver is admittedly a mineral substance and the act of the defendant was within the letter of the prohibition, but the court construing the statute in the light of the evils it was intended to remedy, the objects sought to be accomplished, held that there was implied in this clause relating to confectionery the very limitation expressed in the paragraph relating to food, and as there was no proof that the coating of silver might render the article injurious to health, it did not fall within the ban of the statute. It was there said: "Stated in another way we think that the history of the Act, the objects to be accomplished by it and the language of all its provisions, require that it should be so interpreted that in the case of confectionery as in the case of foods and drugs, the Government should establish with respect to products not specifically named that they either deceive or are calculated to deceive the public or are detrimental to health."

In *Friend v. Matt* (68 J. P. 589), there was under consideration Sec. 3 of 38-39 Victoria, Chap. 63, which reads: "No person shall mix, color, stain, or powder, or alter, or permit another person to mix, color, stain, or

powder any article of food or any ingredient or material so as to render the article injurious to health." In that case the respondent was charged with selling preserved peas, the color of which had been retained by the addition of sulphate of copper. It was contended that as sulphate of copper in substantial quantity was injurious to health, the peas so treated with it were within the statute even if the treated peas were not injurious to health. This view prevailed in the trial court, but the judgment was reversed on appeal, Lord Alverstone, Chief Justice, saying: "I have no doubt that in order to convict under Sec. 3, the article of food must be shown to be injurious to health by the addition of some ingredient."

The instruction complained of eliminated a consideration of any possible injurious effect from the use of the flour as an article of food, and was erroneous. We are not unmindful of the contention that the evidence conclusively shows that flour subjected to the bleaching process is injurious to health in some degree, even if its injurious effect is so slight as to be incapable of observation, and that, hence, the instruction we have found to be error was error without prejudice. This contention is founded upon expert testimony as to the result from the taking of nitrites into the human system. It is said that nitrites taken into the human body act upon the coloring matter of the red corpuscles of the blood so as to change the hemoglobin of the blood into methemoglobin. In the language of one of the chief chemical experts of the Government this effect is thus described:

"In the blood stream there are red corpuscles, invisible to the naked eye, which contain a red coloring substance known as hemoglobin, when not combined with oxygen, and when combined with oxygen forming a dissociable compound, oxyhemoglobin. In respiration, the hemoglobin contained in the red corpuscles of the venous blood is brought into the lungs, where it having an affinity for the oxygen, which is one of the gaseous constituents of the air, combines with the oxygen to form oxyhemoglobin. This oxyhemoglobin contained in the red blood corpuscles is then conveyed, through the arterial system to the various parts of the body, and of the terminals of the arterial system, passing through a mass of tissue, it gives up its oxygen, to oxidize the tissues, or materials that may be in solution there, to form carbon dioxide, and to form water, and this oxyhemoglobin is thereby reduced to the condition of hemoglobin which is returned by the venous system to the lungs, to be again oxygenated. That is where the hemoglobin will again combine with oxygen to form oxyhemoglobin, and a given quantity of hemoglobin may serve to carry a given quantity of oxygen to the system. Now, however, if any of this hemoglobin is converted into methemoglobin, which is a compound of oxygen with hemoglobin, in which the oxygen is more firmly combined than in the case of oxyhemoglobin, although the quantity of oxygen is the same, the oxygen is so firmly attached—combined with the hemoglobin—that the vital processes are not sufficiently strong to separate the oxygen from the hemoglobin, nor to use the oxygen to oxidize the tissue and tissue material, to sustain life, and, consequently, it passes through the circulation to the arterial systems and the venous system, and continues this cycle until, finally, it is destroyed by the liver. Therefore, a certain quantity of the hemoglobin is rendered inefficient. It no longer functionates as a carrier of oxygen to the system, serves, or acts, as a foreign body in the blood circulation, and, therefore, must be removed. As I have said before, an extra strain is placed upon the liver, in order to remove it, and an extra strain is placed upon the red blood marrow, in adults, to regenerate the corpuscles, and to replace the corpuscles of the hemoglobin that have been rendered inactive by the action of nitrite, and the formation of methemoglobin."

It is also said that the continued presence of nitrites in the system does not develop any tolerance on the part of the body or means of neutralizing its normal action. On the other hand, it was proved that no injurious effect had ever been observed from the use of bleached flour although such flour had been largely used. That nitrites in some or greater amounts are frequently present in potable water, bacon, ham, fruits and certain vegetables, and even in the saliva of both adults and children, and no evil result has been detected. That urea usually present in saliva is, when taken into the stomach, a neutralizer of nitrites, and is a method by which nature averts harm from minute quantities of nitrites so constantly taken into the system. In his conflict of evidence it was essentially a matter for the jury to find the fact under proper instructions. Expert testimony is but evidence. In case of dispute the controversy cannot be settled by the judicial knowledge of the court. (U. S. v. McClue, 1 Curtis, C. C. 1-9; U. S. v. Molloy, 31 Fed. 19.) It cannot be held that the evidence was so conclusive in favor of the Government as to warrant the court in withdrawing this issue from the jury.

The Government also claimed that the seized flour was adulterated within the first and fourth subdivisions of Section 7 before quoted in that a substance, viz.: Nitrites or nitrite reacting material had been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength and that it had been thereby colored in a manner whereby damage or inferiority is concealed. The claimant requested a peremptory instruction in its favor on the issues so tendered by the libel, and assigns the refusal to so instruct as error.

The mixture referred to in the first subdivision must be held to include a chemical compound as well as a mechanical mixture. While this does not accord with the scientific definition of a mixture, yet in common acceptance mixtures and compounds are not discriminated. The evil intended to be remedied by the statute is not limited to a mechanical mixture, but is just as potent when the chemical union results from the two substances with the deleterious effect intended to be prevented by the Act. Similarly, the word "colored" must be held to include any artificially produced change in the natural color of the substance "in a manner whereby damage or inferiority is concealed," even if the change is, as in this case, a removing of color. This is the evident intent of the statute. The Act is essentially remedial, and its evident purpose is not to be defeated by any narrowness of construction. *Johnson v. Southern Pacific Co.* (196 U. S. 1). There was evidence that bleached flour did not improve with age in the manner characteristic of unbleached flour, nor did it, as the claimant contended, suddenly take on the condition of properly aged flour which had not been subjected to the bleaching process. That in dough made from bleached flour the gluten never attained the toughness found in dough from unbleached and properly aged flour, and that this toughness was a valuable property in the making of bread. In other words, that as an ultimate result of the mixing of the flour with nitrogen peroxide gas the bread making quality had been injuriously affected. We are not concerned with the opposing testimony. It was for the jury to determine the fact and the court did not err in refusing to peremptorily instruct for the claimant so far as the claim of adulteration was based on the first subdivision before quoted.

The claim of adulteration under the fourth subdivision presents a different question. There is evidence that flour made from new wheat is darker in color than the flour made from wheat which has gone through an incipient fermentation or sweating process in the stack, and second, through a similar process after threshing. This involves time. Also, that freshly milled flour is darker than it subsequently becomes when kept for a certain period of time. That

clear flour is darker than straight flour and straight flour is darker than patent flour. That color is to some extent an index of the quality of the flour, and as such influences the ordinary purchaser. That all grades of bleached flour are whiter than unbleached. In this way the index of color becomes unreliable and a purchaser may take the bleached straight for unbleached patent flour. With the evidence on which the inferiority of the bleached flour is claimed, this it is contended, brings the case within the fourth subdivision of Sec. 7. Opposed to this, it appears that color is at best an uncertain index of quality, and that dealers in flour use other means to ascertain quality. That the color of bleached flour is distinct from that of unbleached flour; the dead white of the bleached is contrasted with the cream white of the unbleached. That bleaching of flour does not obliterate the differences in appearance of different grades of bleached flour. That while patent flour obtains a higher price in the market than straight flour this is not due to any superiority in patent flour from a nutritious standpoint but is due to the fact that bread baked from it is whiter in appearance and, hence, more pleasing to the eye. This esthetic result can be obtained by a certain process of conditioning the wheat and milling the flour. Was it the intention of the statute that this process should have a monopoly? Whiteness in flour is a desirable end in and of itself. Its connection with flour of any particular grade is purely incidental. We are not persuaded that by the bleaching process flour is so colored as to conceal inferiority, or that by it, flour is adulterated within the intent of subdivision four of Sec. 7 of this Act.

The court submitted to the jury the charge contained in the libel that this flour was misbranded, and in effect, instructed the jury that they should find for the Government if the flour was not a patent flour or was not made from first quality hard wheat. This was excepted to and is assigned as error. The contention of the plaintiff in error, as presented to the trial court by various requests for instructions, is that no evidence was introduced tending to prove that the seized flour was not a patent flour, and that the issue tendered by the libel as to the quality of the wheat only went to the question whether it was hard or soft wheat, and that there was no evidence that the wheat was soft. It will serve no useful purpose to review at length the evidence. It suffices to say that it appears that the seized flour contains ninety per cent of the flour content of the wheat; that there is no fixed standard as to the percentage of the flour content which may be properly termed patent flour. When the process first originated a relatively low percentage was called patent flour; as improvements were made in the methods of manufacture a higher percentage was customarily so labeled. Different mills adopt different standards, varying in accordance with the efficiency of their methods of manufacture. The quality of the wheat milled also enters into the question. The better the wheat the higher the percentage of the flour content that may properly be classed as patent flour. The case of the Government rests entirely on the evidence of some millers that in their opinion no greater percentage than eighty-five per cent can be properly classed as patent flour. This evidence is based upon the experience of those witnesses with different machinery and wheat, and is not predicated upon the claimant's methods of manufacture. There is a concurrence of the witnesses that the term "patent flour" does not connote any fixed or maximum percentage of the flour content of the berry. In other words, by patent flour is meant flour containing less than the total of the flour content of the wheat. Giving those words that signification there was no evidence of falsity, and the claimant was entitled to have that issue withdrawn from the jury by a peremptory instruction in its favor.

It was charged in the amended libel that the seized flour was misbranded in that it was labeled as made of the first quality of hard wheat, whereas, in truth it was made in whole or in part of soft wheat. This charge was denied in the answer. The evidence adduced in its support is that the flour was milled from No. 2 Turkey red wheat and was not of the first quality, but that no soft wheat entered into its composition. The trial court, in substance, instructed the jury that if the wheat was not of the first quality the charge of misbranding was sustained. Fairly construed the libel tendered the issue of soft wheat as distinguished from hard wheat. The pleader assumed that it was incumbent upon him to specify the particular in which the branding was false. If it be permissible to so specify and failing to support the specification, to prove falsity in another particular within the general averment of falsity, then the specification serves but to draw the attention of the defendant from the actual point of controversy and to mislead. It was error to submit the charge of misbranding to the jury.

Errors are assigned on various rulings in the admission of testimony, but as the pages of the record which presented the testimony objected to are not stated in the brief of the plaintiff in error, as required by rule 24 of this Court, we deem it unnecessary to consider them. (*Hoge v. Magnes*, 85 Fed. 355-8.)

The constitutionality of the Food and Drugs Act is attacked by the plaintiff in error and was exhaustively argued. The point of the attack is that the statute as construed by the trial court applied to food products in fact entirely innocuous and which could not possibly be injurious to health nor deceptive. As we have not so interpreted the statute, it is not necessary to express any opinion as to the validity of a statute excluding from interstate commerce harmless food products which are offered for sale without deception.

The judgment below must be reversed and the case remanded for a new trial, and it is so ordered.

On May 10, 1913, there was filed in the Supreme Court of the United States a petition for a writ of certiorari to review the judgment of the Circuit Court of Appeals in this case, and said petition is now pending before the Supreme Court.

B. T. GALLOWAY,  
*Acting Secretary of Agriculture.*

WASHINGTON, D. C., *June 3, 1913.*