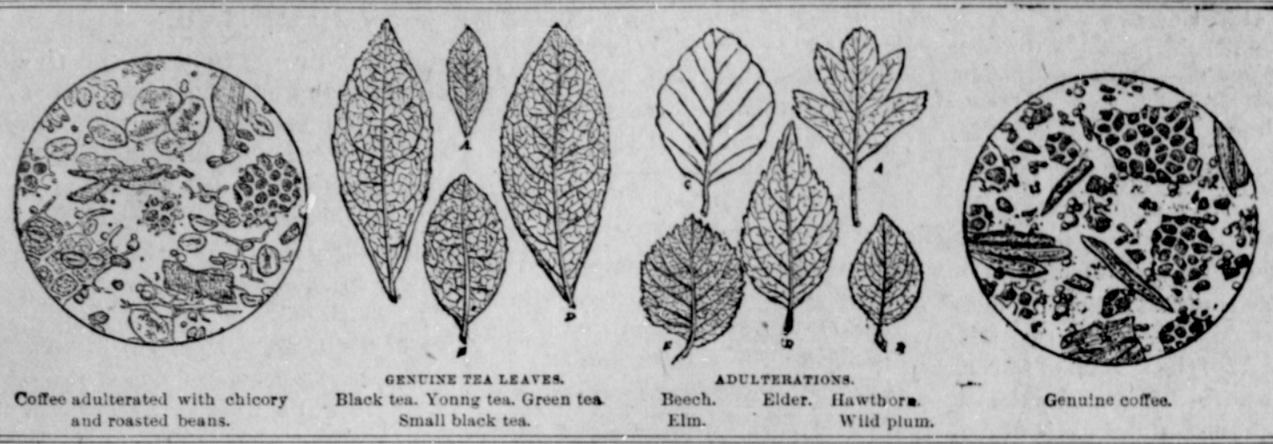
PURE FOOD SCARCE.

NINETY PER CENT OF THE SUPPLY IS ADULTERATED.

Startling Revelations Brought Out by the Senate Investigating Committee—Enormous Amount of Fraudulent and Poisonous Products Produced.

If there is any pure food manufactured or sold in this country, the Senate Pure Food Investigating Committee, which took testimony in Chicago, did not come across it. The evidence in the hands of that committee tends to show that nearly all the commoner articles of food are adulterated by the manufacturers, and some of them with deleterious and dangerous substances. One of the witnesses, Dr. H. H. Wiley, chief chemist in the Department of Agriculture, went so far as to tell the committee that 90 per cent. of the liquid and solid foods consumed by the people of the United States are adulterated. And Dr. Wiley said this statement was based on his personal investigation. He had, so he told the committee, examined and tested almost every article of food and drink bought and sold in the country, and he explained to the investigators the results of his tests.



Coffee adulterated with chicory and roasted beans.

GENUINE TEA LEAVES.
Black tea. Young tea. Green tea.
Small black tea.

ADULTERATIONS.
Beech. Elder. Hawthorn.
Elm. Wild plum.

Genuine coffee.

For instance, he found "pure" alcohol that had been made of menthol and wood sap; brandy that had been manufactured of burnt sugar and water; bread that had been made of potato flour, and even then adulterated with alum and sulphate of copper, substances dangerous to the health of the consumers of that sort of bread; cider made of tartaric acid and colored with caramel; candy made of glucose and artificial essences and colored with poisonous substances; canned goods which had been preserved with salts of copper; butter which had been manufactured from ordinary animal fats and starch, and in which there was an excess of salts; beer that had been made of burnt sugar, licorice, quassia and grains other than barley; cheese that had been made of oleomargarine, with salts of mercury in the rind; cocoa and chocolate that were compounded of sugar, animal fats, flour and starch and ferruginous earths; cayenne pepper that was made of ground rice and flour and salt and a sprinkling of red lead; flour that was made of alum and ground rice; cinnamon that was made of cassia and plain sawdust; ginger that was manufactured of mustard and tumeric; gin that was composed altogether of a mixture of water and sugar and alum and turpentine; honey in the comb that was made of glucose and cane sugar, with the comb molded of paraffin; lard that was made of starch and cottonseed oil and stearine, and containing alum and caustic lime; mustard that was compounded of flour and tumeric and chromate and sulphate of lead; artificial milk that was sold as 'pure condensed milk" and made of burnt sugar, annotto and water; fruit jellies that were made of gelatine and apple parings and flavored with artificial essences; mace that was made of bread dust and venetian red; pickles put up in salts of copper and alum; fruit preserves that were made of the common pumpkin and colored with dangerous substances; sago made of potato starch; powdered sugar, the base of which was rice flour, and which contained also salts of lead and tin, gypsum and marble dust; tea that was made of common leaves and treated with gypsum, china clay and soapstone; vinegar that was made of burnt sugar and sulphuric and hydrochloric acids; wines made of artificial alcohol and water and colored with anilines.

From the testimony of the witnesses before the committee it would seem that more time and ingenuity are expended in producing a counterfeit article than would be required to get nature to produce the real thing. The profit is in producing it in large quantity from waste substances. This is a sort of utilization of the by-product that the country cannot stand for any length of time without serious deterioration of the physical and mental strength of its people, and the status of these crimes and fit punishments for them will undoubtedly be fixed as a result of the report of this committee.

Many Adulterants Poisonous.

Many of the adulterations are of such a character as to injure the pocket of the consumer rather than the health. Commercial fraud, according to the testimony of the national and State government officials, is chiefly the result, but wholesale loss of life has occurred. In a report made by A. J. Wedderburn, a special agent of the Agricultural Department, he calls attention to many cases of death. The deleterious substances are usually used through ignorance, one case of record being that in which death resulted from the use of chrome yellow, not only to the customer, but also to the vender and the members of his family.

Coffee is perhaps the most extensively adulterated article. Consumers do not take the trouble to find out whether their coffee is genuine or not. Artificial coffee beans used to be manufactured with consummate care, but nowadays many producers do not attempt to imitate the beans except in color and size. Spurious coffee beans were formerly imported from Germany in large quantities and to some extent from France. But American manufacturers, realizing the profit to be made in the trade, entered the field and now make better imitations than any that are to be imported. Flour or almost any cereal is mixed with molasses and molded to resemble the bean and then roasted and colored. Sometimes chicory or burned sugar forms a part of the compound, which, although almost worthless, is not harmful when composed of such simple substances, but if mineral matter be added the product is often poisonous to some degree. A few years ago in France the Government seized a factory which employed sulphate of iron in its mixture.

Imitation coffee beans can be distinguished easily from the genuine by a careful examination. Molded as they are, the artificial beans present a uniformity of structure, which is entirely foreign to the real beans. Again, artificial coffee beans will nearly always sink when put in water, while genuine coffee floats. There are several simple and good tests for ground coffee. When a little of the coffee is taken and pressed between the fingers or squeezed in the paper in which it is bought, and it will not form a coherent mass, it is pretty sure to be genuine, but if the grains cake they are not coffee. Even chicory grains will stick to each other, for they are comparatively soft and open, and adhere without difficulty when squeezed. In water chicory and cereals will soften quickly like bread crumbs, while coffee will take a long time to soften; genuine coffee grains will float, as will the whole beans, but chicory or any other sweet root will soon sink. Chicory or caramel will cause a yellowish or brownish color to diffuse rapidly through the water, but pure coffee will not tint the water for a long time. Such tests are so simple that there appears little excuse for not trying them. Yet manufacturers sell to dealers tons of artificial coffee, which is accepted unquestioningly as the genuine article.

Spurious Stuff Is Possible.

Both manufacturers and retail grocers make enormous profits, for their fraudulent coffee can be made for as little as 3 or 4 cents a pound. Often the flour, crackers or cereals which enter into its composition are so badly damaged that they could be utilized in no other way. There is, besides, much huckstering in real coffees, and lower grades are frequently mixed with the higher. Thus Maracaibo and La Guayra coffees are mixed with Java and Mocha coffee and the mixture sold for pure Java or pure Mocha.

Cheap cream of tartar has been proved to be composed largely of tartaric acid and terra alba. This terra alba, or white earth, imported from the shores of the Mediterranean, has been used as a food adulterant to a fearful degree. It is, when pulverized, a white and almost impalpable powder, tasteless and looking like a fine starch. Its presence is frequently detected in powdered sugar, which may account for the fact that housekeepers do not find powdered sugar altogether satisfactory for cooking purposes. Pure cream of tartar will dissolve in hot water, but terra alba will not; therefore to test it put a teaspoonful into a tumbler of hot water, allow it to stand for a few moments, and then see whether there is any sediment. If the sediment is large, terra alba is probably present. If it does not dissolve, leaving the water clear, add a few drops of tincture of iodine to the water. If pure, the color will remain unchanged; but if starch is present the water will turn bright blue.

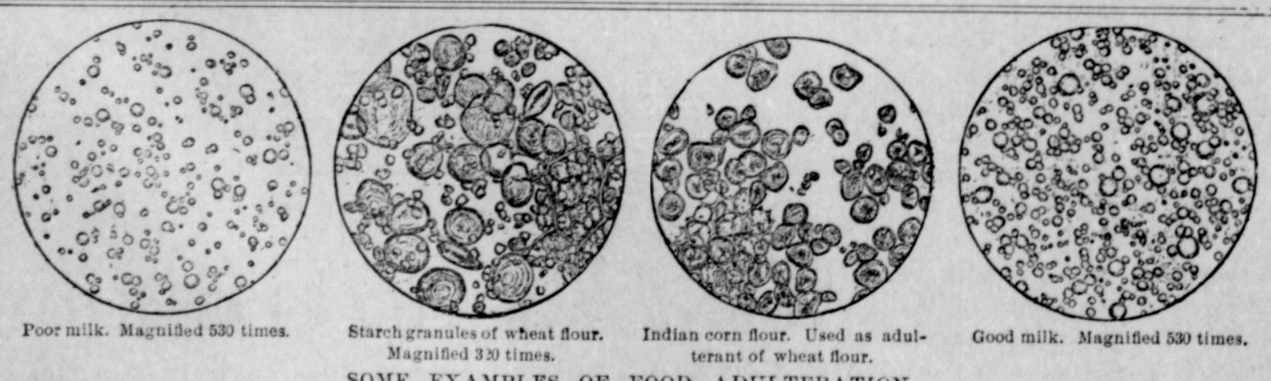
The usual adulterants of tea are "spent" or exhausted tea leaves, leaves of other plants like tea, sand and various materials used for coloring the leaves. Coloring is common and is called "facing." It generally consists in coating the leaves with powdered soapstone, with lead, or plumbago, if they are to be black, or with the powdered soapstone with indigo or Prussian blue if they are to be green. Often the facing adds materially to the weight of the tea. In England the use of exhausted leaves is much larger than it is in this country. Spent leaves are bought up from hotels and coffee-houses at merely nominal prices, and are dried and faced before being resold. They are easily detected by their frayed and irregular appearance and by the small proportion of soluble matter remaining in them.

The substitution of other leaves for those of the tea plant is also more common in England than in the United States. Yet even in this country it is well known that foreign leaves can easily be detected by spreading out a few of the leaves from the bottom of the teapot. The lanceolate, spear-head-like shape of the tea leaf, together with its serrated margin, distinguishes it from that of any plant used to counterfeit it. As a rule facings can be detected only by chemical tests. Green teas are oftener adulterated than black teas. Tea is often colored, and if the decoction made by the housekeeper becomes highly colored after being boiled a few minutes adulteration may be suspected.

List Practically Unlimited.

The list of articles adulterated and their adulterations is practically unlimited, as was stated by Prof. Wiley in his testimony before the Congressional Committee. The adulteration of coffee and tea will serve as types. It is stated that most of the spices sold are wholly fraudulent, as are most of the jellies. Perhaps half of the alcoholic liquors are prepared from neutral spirits doctored and colored to have the taste and appearance of the liquor demanded by the consumer. A type of this adulteration is the recipe given for "pure country cider." It is: To each gallon of water add one-half pound of granulated sugar, acidulate with tartaric acid, and flavor with oil of apple, previously put in alcohol, color with caramel, and to twenty gallons of the mixture add two gallons of genuine country cider.

Frequent cases have been reported of late years of sickness arising from the use of canned meats. The cause seems mainly to have been improper methods of canning, or the use of meat that was tainted before being canned. According to A. J. Wedderburn, of the United States Department of Agriculture, but little risk will be run by the purchaser who carefully examines the outside of the cans which he buys. The heads of the cans should be slightly concave, which shows that they were hot when sealed. If the heads are convex it shows that decomposition has commenced in the can.



Poor milk. Magnified 530 times.

Starch granules of wheat flour. Magnified 320 times.

Indian corn flour. Used as adulterant of wheat flour.

Good milk. Magnified 530 times.

SOME EXAMPLES OF FOOD ADULTERATION.

A square rod is 272¼ square feet.

HAS SAVED OVER 1,000 LIVES.

Ship Captain Who Holds the Record of the Sea as a Life-Saver.

Captain Thomas L. Weiss, of the good ship Belgian King, of the California and Oriental Line, holds the record as the sea captain who has saved the greatest number of lives. The veteran sailor is said to have saved the lives of over 1,000 men, women and children during his 24 years' career on the North Atlantic. His luck in finding helpless vessels has won for him the name of the "towboat captain." The Captain has earned for the crews and owners of the steamers which he commanded the sum of $90,250, paid as derelict awards and in other ways.

It was in March, 1881, that Captain

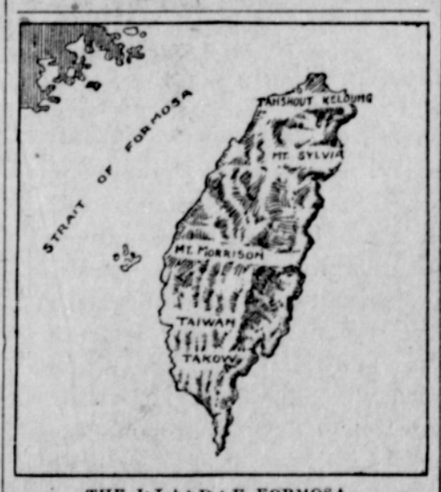
CAPT. THOMAS L. WEISS.

Weiss was instrumental in saving the lives of 850 souls, passengers aboard the Cunard steamer Palmyra. Coming up to the disabled steamship at a point 550 miles east of St. Johns, Newfoundland, he sent a line to the ship and towed her into St. Johns. For this the crew and owners of the Brooklyn City, the Captain's steamship, received $15,000. All sorts of thrilling stories are told of the perils the crew of the Captain's ship incurred in their efforts to save other imperiled sailors. Among the vessels towed into port by the Captain have been the steamship Albano, for Baltimore, disabled for 12 days 500 miles off the English coat, with 300 men on board and rudder gone, and the steamship Strathleven, three feet of water in her bottom, and 40 souls aboard. The captain, wife and 12 men of the German bark Margaretha Blanca, adrift 350 miles off Halifax, 14 men in the Norwegian bark Corilan, 8 in the Norwegian bark Emil, 12 in the French bark Louis, and 2 French fishermen are also among the lives saved by the captain and his men.

ISLAND OF MAN-EATERS.

Unconquered Formosa Inhabited by a Race of Savage Cannibals.

News from Formosa that Stoepel, the daring explorer, has succeeded in climbing Mount Morrison, the highest peak in the island, gives but a faint idea of the dangers which he must have encountered. Known for centuries as the garden spot of the East, Formosa is inhabited by a race of savage cannibals which have been able to prevent more than a temporary settlement on the island by white men. The Dutch,



THE ISLAND OF FORMOSA.

the Spanish, and the Portuguese have at different times tried to conquer the island, but have always given it up as a bad job. During the early part of this century Formosa was known as "the graveyard of mariners," because once a sailor set foot on its inviting shores he was never seen again. In 1867 an American bark, the Rover, was wrecked on the island, and the crew was massacred by the natives according to their usual custom. The Asiatic squadron of the United States was sent to enforce satisfaction, and several landing parties were sent on shore. They met with a warm reception, however, and finally it was decided to try peaceful means. Seven officers took their lives in their hands and went ashore unarmed. After a conference with the natives a treaty was made, and since that time European sailors have not been molested. Formosa supplies the world with camphor.

The Latest Hunting Yarn.

An American sportsman out duck shooting in Maine relates how he stopped to rest in an old hen field in which there was an orchard. A flock of sheep was feeding near by. It was not long before his attention was called to the chirruping of some squirrels in a thicket, and he was surprised to see the sheep stop feeding and manifest great excitement. The squirrels went into the orchard, and, climbing into one of the trees, resumed their loud clatter, evidently calling the sheep, since the flock made at once for the apple tree. Then the squirrels began to bite off the apples, which fell among the hungry sheep, who would struggle for the fruit like so many school boys. The squirrels seemed to enjoy the fun, and after they had dropped a few apples from the first tree they skipped to a distant tree, for which the sheep would make in great confusion. After the squirrels had thus enjoyed an hour's fun with their fleecy neighbors and supplied them with a sufficient quantity of the fruit they scampered back to their haunts in the thicket, leaving the sheep to resume their grazing—Household Words.

STRONG ROOMS.

Remarkable Expedients Adopted to Save Some Fabulous Fortunes.

The Bank of England's strong room is one of the largest in the world. The foundation, 66 feet below the street level, is a bed of concrete, 20 feet thick. Above this is a lake seven feet deep, and above that thick plates of iron, specially manufactured to resist both skill and force. Anyone attempting an entrance from above would find a similar bed of concrete, a similar lake, and similar plates of iron. The walls are impenetrable, while the doors are one foot thick, weigh four tons each, and are made absolutely undrillable. W. W. Astor's valuables are stored in the office of the Pall Mall Gazette, in one of the most remarkable strong rooms ever erected. It is steel throughout and covered with half an inch of solid concrete. The door, also of solid steel, weighs over two tons, and has the most remarkable lock which the ingenuity of Chubb has ever constructed. The whole cost a fabulous sum, but this is not surprising, when we are told that Mr. Astor locks up about £8,000,000 worth of valuables and money in this room. The Imperial Ottoman Bank, Constantinople, had a marvelous steel fort built for it some years ago. It is built upon a water-bearing rock, and on the top of the rock foundation is a four-foot bed of concrete. The height is over 36 feet, length 46 feet and width 24 feet. The steel walls are surrounded by masonry and concrete six feet thick throughout, while the whole comprises nearly 30 tons of steel.

"Yourself or Quits."

As an example of the indiscretion to which some are rushing a society journal narrates the story of how a lady lost $10,000, representing the whole of her pin money for a year, during holy week.

Apropos of this showing of the other side of the picture hitherto unpublished, the story is told of an interesting card playing romance.

A very rich man sat playing ecarte with a pretty girl whom he intensely admired. She went on recklessly staking her money till ruin stared her in the face.

"Doubles or quits," said the tempter.

She assented, knowing that she could never pay. She lost.

"Yourself or quits," said her opponent.

Again the girl summoned all her wits and looked him straight in the face. "Are you proposing to marry me?" she asked.

He nodded.

He won the game, and the pair made one of the happiest unions known in England at the present day.—Paris Herald.

An Interrupted Sermon.

Just after the rector of Manaton, Denvon (Rev. J. C. B. Sanders) had commenced his sermon on Sunday morning, he saw a gentleman on a visit to the parish taking notes of the discourse. Stopping in the midst of a sentence, the rector said: "Are you taking notes of my sermon, young man?" "Yes, sir," was the reply. The rector: "Then if you don't stop, I shall." The visitor said it was a public place of worship. "Very well, then," replied the rector, who began to close his book. The visitor thereupon said he had no wish to cause a disturbance, and would put his note-book away. The rector said he thought the visitor was very rude. He then proceeded with his sermon.—Devon and Exeter Gazette.

Corn-Stalk Disease.

Corn-stalk disease is the name given to an affection occurring in cattle as a result of eating corn and corn fodder that seem to have been rendered poisonous by moldiness and fermentation. The disorder is usually confined to animals under 4 years of age, and it runs a rapid course, causing death in from four to thirty-six hours.

Lofter—Indeed, Miss de Vine, I must say it. You are the star of the links. Miss de Vine—Now, that is very nice of you. And you are the first to discover me, too. Lofter—Then may I have an astronomer's reward? Miss de Vine—What is that, Mr. Lofter? Lofter—The right to give you my name.—Brooklyn Life.

Waggles—There is only one thing as hard to find in this world as the north pole. Jaggles—What's that? Waggles—The fellow who gets lost searching for it.—Judge.