

BITTER-ROT APPLES

Something About the Disease Which Destroys the Fruit.

Comes in July and August and in Some Cases Plays Wholesale Haven in Orchards—How It May Be Fought.

"Ugh," says the man as he bites into his apple and as quickly spits out the bit, "that's bitter." And so it is, for he has taken an apple which is infected with the bitter rot. With the coming of the new crop of apples to market, the unpleasant experience of the man who bit into the diseased part of the apple is quite a common one. But it is not as might be supposed a case of ordinary rot, due to bruise, but the bitter rot is caused by a fungus which grows in the ripening tissues of the fruit and induces decay.

The bitter rot appears in an apple orchard at different times during the months of July and August, the time of its first appearance varying with the climatic conditions during any particular season. The first spots usually develop on the apple fruits when they are nearly full grown. From that time on until the fruit is entirely ripened the disease is likely to occur with increasing severity.

Warm, sultry weather, particularly after a rain, forms the ideal condition for the development of the bitter rot. In cool, dry summers the bitter rot is usually present but sparingly. A short series of hot, wet days in August may bring about a sudden and very destructive attack. Nights with a heavy fall of dew alternating with hot days are usually followed by an extensive development of the disease. Numerous instances might be mentioned where the disease appeared in an orchard during the latter part of August, after a few hot days, destroying the whole crop in three days. A notable case of this kind occurred during the summer of 1900. Cold weather usually checks the disease and may stop it altogether.

The bitter rot fungus, like other species of the form genus *Gloeosporium*, has an almost world-wide distribution. In the United States it has been found in nearly all the states east of and including Kansas, Oklahoma and Texas. A careful search through the mycological literature available at the Missouri botanical garden has shown that under one name or another this fungus has been reported from Maine, New Hampshire, Vermont, Connecticut, New York, New Jersey, Delaware, Maryland, West Virginia, North Carolina, South Carolina, Alabama, Mississippi, Kentucky, Ohio, Indiana, Illinois, Michigan, Wisconsin, Missouri, Arkansas, Kansas, Oklahoma, Indian Territory and Texas. The states east of the Mississippi from which the fungus has not yet been reported are almost unexplored mycologically. It is extremely probable that it occurs in all states where the apple is being grown, even in the most northern latitudes.

The first signs of the bitter rot appear in the form of a very faint light brown



APPLES AFFECTED WITH BITTER ROT.

discoloration under the skin of the apple. The spots are exceedingly small at first, and as they grow larger they appear circular in outline. The spots rapidly increase in size, becoming darker brown. When the spot is one-eighth of an inch in diameter the area appears distinctly sunken. The borders of these spots are usually very nearly circular and sharply defined.

Few of these plaques which devour and destroy the work of the husbandmen are invulnerable. Our agricultural schools and colleges and experiment stations are studying and investigating these pests, and there are few whose ravages they cannot arrest. The farmer is taught by the practical work of these schools how best to plant, and where and when. Some ground, it is learned, is liable to one plague, and a change of crop is advisable; other soils require different special treatment to prevent these attacks. Various washes, sprays, powders or fumigations are needed to save the plants from their insect foes.

Craved Salmon and Oregon Water. Many Oregonians were inclined to laugh at the Missouri woman mentioned a short time ago who insisted on going back to her native state because there were no catfish in Oregon. It appears, however, that Oregon women are as whimsical as Missouri women, as a citizen who has two sons practicing law in Brooklyn, N. Y., and doing very well, went on there with his wife to visit them a short time ago, and at her desire left her there. She thought she could look after the boys and enjoy life in the east, but she has quite unexpectedly returned home. When asked why she did not remain in Brooklyn, as arranged, she said such a craving came over her for a slice of Chinook salmon and a drink of Bull Run water that it seemed as if she could not live without them, and so she came back—Portland Oregonian.

Not So Bad. Mrs. Kelly—Did your husband come home sober? Mrs. Rooney—Comparatively so. He admitted that he was drunk.—Judge.

A Problem. "He's engaged to one of the Bagley twins." "Which one?" "That's what he's trying to find out himself."—Chicago Post.

TRY FOR A KINGFISH.

There is Lots of Fun to Be Had in Tussles with the Black Bass of the Sea.

"Speaking of game sea fish," said the angling doctor, according to the New York Sun, "reminds me that you seldom hear much about the kingfish. He is more nearly the prototype of the freshwater black bass than any native of the sea, so far as my experience goes.

"He has the same symmetrical body, the same untiring spirit and affords the angler an equal amount of sport. He seldom attains to the weight of his freshwater congener. In near by waters it is unusual to hook a kingfish of more than two pounds, but every ounce in those two pounds is firm, hard flesh and muscle.

"No sooner does the hook penetrate his tough mouth than there is action at his end of the line. The difference in strenuousness of fish is never more accurately demonstrated than when a kingfish is hooked on weakfish grounds. One or two lunges and the weakfish is towed to the landing net; but after five minutes' play the kingfish still retains the vigor and muscle which he exhibited when he first took the hook.

"The kingfish is always found on a sandy bottom. Sometimes he resembles the fluke in his secretive habits. He will lie in the loose sand at the point of a bar in a tide way, completely submerged in the sand except his eyes, which are continually on the alert for the food brought along by the tide. Sometimes the kingfish chooses the breakers for a feeding ground, and they are frequently caught from the Coney Island and Rockaway piers.

"Black bass tackle is eminently suited to them, but the hook should be a small Sproat bend and the line should be linen, as silk rots very quickly in salt water. The favorite bait for kingfish is shiner crab or shrimp. Indeed, shrimp is a universal salt water bait. "Some fishermen make the mistake of putting a dozen shrimp on a hook, making the hook look like a pin wheel. The most successful salt-water fishermen of my acquaintance uses only two shrimp. He hooks these through the tail.

"Of course, so small a bait as a shrimp does not conceal the hook. The old notion of absolutely concealing the hook has been long done away with by expert anglers. The main point is to present your bait in the most natural form to your prospective victims. Hooking a shrimp through the tail gives the little fellow a chance to assume a natural appearance in the water, while hooking him through the body destroys all his chances for movement.

"The kingfish seems to be a fellow who does not require companionship. He does not herd with his fellows, as do the blue and weakfish, and it is seldom that the angler fills his basket with kingfish alone. Still, they all have a liking for sandy bottoms and the surf, and where one is caught there are sure to be several in the vicinity.

"As a food fish the king is universally conceded to be a delicacy."

BATTLES WITH BUGS.

State Agricultural Departments Actively Fighting Insect Enemies of Farmers.

Reports from the wheat harvested in Ohio this year indicate that the ravages of the chinch bug have been quite severe and that the value of the yield will be materially cut down. Scientists in agricultural schools are urging the farmers to fight this destructive insect by the distribution of a species of fungus which attacks and is fatal to the bug, says the Toledo Times.

The activity of the state agricultural departments is enlisted in developing means of fighting these insect pests of the farmer, gardener and fruit grower. When the country is less thickly settled and wild birds and animals more numerous, the question of insect pests is not so serious as it now is. It is a common thing at the present time to see whole orchards blighted and sometimes destroyed by some new foe which commerce and travel have imported, or by an old enemy which civilization's tampering with the balance of nature has set at liberty.

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EXCEPTION TO RULE.

One Foreign Alliance That Has Proved Distinctly Happy.

Countess Walderssee, Who Was Esther Lee, Drove a Prize in the International Marriage Lottery Enterprise.

Countess von Walderssee is now at her old home in New York city. She arrived on the steamship *Moltke* alone, her distinguished husband finding himself too busy to gratify a desire he has cherished for years to visit the country of his wife's birth.

Countess von Walderssee is far past middle life, but is still a brilliant woman, with vast influence at court. In times past she was credited with more influence at the German court than any other American woman exercised in any court in Europe.

The countess was Miss Esther Lee, daughter of David B. Lee, a pioneer wholesale grocer on South street. She came of an old Connecticut family of farmers and landowners. When her father died her mother took her and her sisters to Paris. There Esther was educated.

In 1857 she married Prince Frederick von Schleswig-Holstein, with whose daughter she was on terms of warmest intimacy. She was very young then, while the German prince was an old man, and it was gossip that she had boldly schemed to get the nobleman for her husband. By a regular marriage with the American girl the prince would be compelled to renounce his titles, so he proposed a Morganatic alliance. This was refused by Miss Lee, whereupon the prince gave up his titles and made her his bride.

Six months later the prince died of apoplexy, leaving his girl wife \$4,000,000. The princess, who held the honorary title of Princess de Noer, the title of Prince de Noer having been conferred upon her husband by the king of Prussia, died at Wiesbaden in 1858, when she met Count Alfred von Walderssee, a brilliant young officer on the king's staff, whom she married some years later.

The countess won the confidence of the king, who later became emperor of Germany, and is said to have finally caused Bismarck's overthrow. She was ambitious as well as brilliant, and wished



COUNTRESS VON WALTERSSEE (Now Paying Her First Visit to America in Fifty Years.)

that her husband should succeed the "iron chancellor." During the closing years of Bismarck's tenure of office she was identified with every movement that seemed to weaken his hold on imperial favor. Dr. Stocker, the famous court chaplain whom Bismarck dismissed, was her confidant and adviser.

Her salon, one of the few notable salons Germany ever possessed, was a hotbed of anti-Bismarck intrigue, it is asserted. Count von Walderssee was raised to practical command of the army in 1873, and in 1890 was appointed to the command of the allied forces in China. He succeeded the immortal Von Moltke as a field marshal, a position he now holds.

The countess' friends say she is no politician, but a devout, true Christian woman; that she carried to Germany where Sunday is a day of pleasure, her family's New England ideas of the day, and has exerted her influence to modify what is known as the continental Sunday. She has also been a strong advocate of moderation in drinking.

The marriage of the New York girl to the count was one of the striking foreign alliances that proved happy, the count and countess having ever been devoted to each other.

The countess had not been in this country since 1854, when her mother took her abroad. Monks Live Under Ground. Miles of subterranean corridors, lined with tombs and cells, were constructed years ago, far below the magnificent cathedral at Kiev, Russia. In these cells over 1,500 acetics perform their daily devotions and duties—live, eat, and sleep, in the grim company of their dead predecessors. For a short time each day they ramble in the beautiful gardens.

The Barber Was Exonerated. A regular patron entered a barber's shop in Cleveland, and when the tonsorial artist had almost completed his work on him, he suggestively remarked: "Hair is getting rather thin on top, sir. Have you tried our hair restorer?" The patron facetiously responded, "Oh, no it's not that—it's worry."

Realism in Dentistry. A dentist in Moscow is a wonder in his line. He has invented a system by which false teeth can be made to adhere to the gums so firmly that in three months it is difficult to extract them. This Russian tooth-grafter hopes in time to be able to rival nature by making artificial crinoids that shie.

COLORED MAN HONORED.

Maj. Franklin A. Denison, of Chicago, Knows How to Command Genuine Respect.

In no state more than in Illinois does the able and deserving negro receive prompt and distinguished recognition. This is well illustrated in the case of Maj. Franklin A. Denison, a colored lawyer of Chicago, who, a few days ago, was appointed quartermaster, with the rank of major, on the staff of Gen. James B. Smith, of the Third brigade, Illinois national guard. It is not the first time that Maj. Denison has been honored as a colored man of signal ability. He was the first colored man ever elected valedictorian of his class in a northern college; he was the first colored man ever appointed a city prosecuting attorney in the north; he was the first colored man



MAJ. F. A. DENISON. (Colored Soldier Who Has Been Made Brigade Quartermaster.)

to serve as president of a general court-martial in the United States army, and the first colored man to sit on a court of army claims.

Maj. Denison was born in San Antonio, Tex., in 1862. He obtained his early education in the public schools of the Texas city. Later he was graduated from Lincoln university, in Pennsylvania, as honor man of his class, and in 1890 was graduated from the old Union college of law (now the law school of Northwestern university), carrying off the highest honors for scholarship and being elected as valedictorian and class orator. In 1891 Mayor Washburne, of Chicago, appointed him assistant prosecuting attorney, a position he held through the administrations of Mayors Harrison, Sr., Hopkins and Swift, the last named promoting him to be chief of his department. In 1897 he resigned to take up the general practice of law, in which he built up a lucrative business, with white persons as well as colored among his clientele.

At the beginning of the Spanish-American war Maj. Denison joined the Eighth regiment, Illinois national guard, and was soon after commissioned major, and took command of the Third battalion. He went to Cuba with his regiment, and there Gen. Lawton made him president of the general court-martial of the district, the only colored man who ever held such an important place in the army. Later Gen. Lawton appointed him one of the three judges of the court of army claims at Santiago. It was this tribunal before which all claims for damage done to the property of Cubans by the invading army were brought.

After being mustered out of the service with his regiment in 1899, Maj. Denison resumed the practice of law in Chicago with greater success than ever. He is married, has a family and a handsome home.

ISAAC STEPHENSON.

Venerable Wisconsin Business Man Who May Be the Next Governor of His State.

Isaac Stephenson, who, according to the prophecy of William E. Curtis, will be the next governor of Wisconsin, has done more, perhaps, than any other living man for the development of the in-



ISAAC STEPHENSON. (Lumberman Who May Be the Next Governor of Wisconsin.)

dustries of his state. He was born in New Brunswick in 1829, and went to Wisconsin at the age of 12. After working on a farm, he bought a schooner which he sailed between Milwaukee and Escanaba, and invested the savings of his enterprise in timber lands. He is now president of a large lumbering company and owns the controlling interest in a bank, named after him. He has served in the state legislature, and represented his state in the house of representatives at Washington.

PARIS OF AMERICA

Mexico City Has Earned That Place and Title.

The Mexican Metropolis Declared to Be a Jewel Set in the Crown of the Sister Republic of the United States.

Mexico City has been called the Paris of America, and with good reason, early. Mexico City is a jewel set in the crown of our sister republic; it does not shine with a light reflected from the great metropolis upon our eastern shore, nor does it pale in close comparison. It gleams alone undimmed and with a radiance peculiarly its own.

Set upon a hood plateau, with the ever snow-crowned mountains standing as a sentinel, this lovely city commands as grand a view as is to be found in all the world. To the north a never-ending chain of verdure-hung mountains, while to the south the glowing tints and voluptuous beauty of the deep valleys and tropic gardens lie dazzling in the golden sunlight.

Here you will find the contrast of splendor and squalor, following the avenues of stately homes and pampered luxury will be the narrow alleys and swarming byways, the home of pestilence and crime.

The aristocracy of Mexico is found among the descendants of the pure Castilian Spanish and, with the flowing Mantilla and coiffers of gold, have come the hidden dagger, the slow smile and treacherous hand of the Indian.

While you would miss the boulevard cafe of gay Paris, you will find its mate behind gorgeous gilded pillars and heavy hangings. Here, if you wish, a fine lobster waiter will bring a huge platterful of the crimson monsters that you may have your choice and decide which shall be prepared for your delectation.

A long drive, through overhanging branches of ancient trees, will bring you to the superb Tacubaya, the Monte Carlo of Mexico. Here all day and all night is the click of the wheel and the clashing of the dice.

A most charming trip may be taken to the floating gardens by way of La Viga canal. Here you glide gently along, propelled by the long pole which your gondolier thrusts deftly against the bank or some neighboring craft. You meet long, shallow canoes loaded to the water's edge with great masses of flowers.

During the morning you will find the streets and the shops crowded with gayly dressed shoppers, carriages blocking



THE WHITE HOUSE OF MEXICO.

the streets in front of a fashionable church, while the flower market does a thriving business for cavalier or mantled lady.

Right in the center of the city lies the lovely Alameda, the queen of parks or plazas, with broad stretches of velvet green, orange and magnolia trees spreading their fragrance over the promenade. Here are great fountains and magnificent statuary, while on each side run broad avenues of smooth asphalt, and shining clean.

One of these avenues passes between blocks of handsome buildings, until turning suddenly it widens to twice its width, and starting from that magnificent bronze statue of Charles IV., becomes one of the most famous drives in the world, the Paseo de la Reforma. This magnificent stretch of promenade is nearly three miles long, bordered on each side by fine statues of forgotten heroes. Every once in a while it widens into an immense circle, to admit of a large and splendid monument and statue.

This drive ends at the park and castle of Chapultepec, the pride of Maximilian. No place in the world is there a spot to compare with this princely domain. Hewed from the rock is the bath of Montezuma standing like guardians in a row are countless mammoth cypress trees, the growth of centuries, and above all, on the crown of a flower-wreathed, rocky eminence, is the fairy castle of Maximilian's bride.

It would take pages to describe the objects of interest and beauty in this city of the Aztecs. The government pawn shop, the grand old cathedral, second only to St. Peter's in Rome, Guadalupe, the Mecca of all the faithful; the art galleries, the museums, all the hundred and one objects of interest and delight that unite in making this lovely city one of the finest, most interesting and most progressive of any of the places to be found in travel and research.

ANNA H. CLARK. The Man for Her.

Little Ethel—Reggie Rex and I is goin' to be married w'en we grow up. Nurse—I thought you didn't like Reggie.

Little Ethel—I don't; but married men is never at home, and I'd rather have him away all the time than any boy I know yet.—Tit-Bits.

Infallible Sign. Bacon—Can you tell when hair has stopped growing? Egbert—Yes; when you find it in the butter you can make up your mind it has stopped growing.—Yonkers Statesman.

FIXING LENGTH STANDARDS.

How a Constant Unit of Measurement Is Fixed and Maintained in England.

Preparations are being made for depositing parliamentary copies of the imperial standards of length along the floor of Westminster hall, says the London Telegraph, of recent date.

The delicate undertaking, which is being carried out in its initial stages by the first commissioner of works, will be taken over on its completion by the standards department of the board of trade as the responsible authority in such matters. The standards, it is understood, will be identical with those which were placed some years ago in Trafalgar square. There are, in fact, four sets, the first ranging from one foot to an imperial yard, while the second is a pole or perch, the third a chain of 66 feet, and the fourth the standard measure of 100 feet. Students of history scarcely need being reminded that King Edward decreed that there should be but one standard measure—that kept at Winchester—for all England, and Magna Charta contained a similar provision with regard to weight. Strict enforcement of the law was found impracticable for generations, a great number of customary weights and measures continuing in use, especially in transactions relating to land, corn and wool. Finally, however, parliament insisted upon the observance of general uniformity. Since 1826 an imperial system of weights and measures has been in vogue throughout the kingdom and an act passed in 1878 inflicts heavy penalties for using weights and measures not recognized by the law.

Naturally, the "man in the street" requires to know how the standards are ascertained and established. Chief among the earliest standards of length were the palm, the foot and the cubit. There were two leading cubits—the natural cubit of Egypt, Chaldea, Phoenicia and Greece, and the royal cubit of Memphis. The Greek foot passed into Italy, where it was divided into 12 inches. The Romans used a three-foot-uncia, while the Saxons adopted an ell, or yard of 36 inches, based on the Roman foot. This measurement remained in England, although the lapse of time saw various modifications in the ell. So matters progressed until 1760, when a copy of an old yard measure found in the tower of London was made for a select committee of the house of commons, and in 1824 this copy was legalized by parliament, with a direction that "in the event of its being lost the standard should be recovered by making the length of a mean time second's pendulum in the latitude of London in a vacuum at sea level equal to 39.1393 inches." Unfortunately, the standard disappeared at the great fire which destroyed the houses of parliament in 1834, and as the committee subsequently appointed by the astronomer royal reported against the accuracy of the pendulum method, the duty of restoring the lost standard was intrusted to a royal commission. It was not till 1854 that the task was accomplished. Taking the best secondary evidence available, the commissioners produced a standard bar of gun metal, the distance between two lines on which, crossing gold studs, is one yard at 62 degrees Fahrenheit and 30 inches barometric pressure. Authorized copies of this legalized standard are preserved at the mint, the royal observatory at Greenwich, Trafalgar square and elsewhere, so that the addition now being made in Westminster hall is a precaution which experience has shown to be necessary in a matter vitally affecting the commercial life of the nation.

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AKIN TO X-RAYS.

Radiations of Light That Have Been Designated by the Letter "N."

It has been found lately that most of the artificial sources of light emit radiations capable of traversing metals and a number of other bodies opaque to light; that is to say, radiations affecting the eye as light. These rays, which are distinguished by the name of "n," enhance the phosphorescence of phosphorescent substances, and M. Blondlot, the well-known scientist, has employed this fact in trying whether such rays are emitted by the sun, says the London Globe. To this end he placed a tube of phosphorescent material, for example, sulphide of calcium, behind an oaken panel or oaken shutter closing a window exposed to the sun and keeping the chamber dark. If now a plate of lead, or even the hand, be interposed between the shutter and the tube the phosphorescence diminishes, and when the plate is withdrawn it increases. The experiment is so simple that many can repeat it. The panel of oak had a thickness of fifteen millimetres. The phosphorescence is rather feeble at first, and a sheet of black paper may be held as a background to the tube. Plates of aluminum and cardboard between the shutter and the tube do not prevent the phenomenon. The "n" rays from the sun can be concentrated by a lens of quartz. They are reflected by polished glass. Like the "n" rays from a Crookes tube, or a flame, those of the sun act on a small spark and a tiny flame so as to increase their brightness, but M. Blondlot has not obtained any photographic effect from these rays.

Declined Peerages.

The instances of Englishmen declining peerages are few. Mr. John Walter was one, and the late Squire Montagu, of Yorkshire, was another. Sir William Harcourt was a third, and Mr. Chaplin a fourth. Sir Michael Hicks-Beach also declined a peerage by anticipation in saying publicly when the project was mooted that he considered his baronetcy (one of the oldest) was a greater honor than a newly-created peerage.