

MICROSCOPE FOR THE COOK

One Sure Way of Exposing Certain Adulteration.

REAL TESTS FOR FOODSTUFFS

Powdered Rock in Celery Seed, Chicory in Coffee and Olive Pitts in Spices Disclosed by Lenses of High Power.

WASHINGTON, March 12.—A powerful microscope is recommended by the food science department of the Department of Agriculture as a very useful and desirable attached appliance.

A microscope is useful in the examination of food and drug products," said B. J. Howard of the bureau of chemistry. "Of course it can be readily understood how gross adulteration may be detected by a simple magnifier, as for instance when foreign seeds, gravel or powdered rock have been mixed with whole small spices. The adulterant may be of such character as easily to escape the notice of the ordinary buyer, though with even a small lens or reading glass the foreign substance may be seen to be very different from the true article.

"One case recently brought to the attention of the bureau was a sample of celery seed adulterated with nearly 40 percent of powdered rock, the color and size of the rock particles being such as to be easily overlooked in a casual examination. A small magnifier, however, made the difference very apparent at once, as you will see from the samples which, with other similar ones, I have mounted as a specimen. A magnification of only six diameters shows the contrast of the regular shaped celery seeds with the angular rock particles.

"The usefulness of the simple magnifier in examining food and drug materials, however, is of limited application, and for the examination of products which are made up of small particles, such as flour, ground spices and powdered drugs, has little or no value. In such cases, recourse must be had to the compound microscope with a magnifying power ranging from 50 to 200 diameters.

"The use of this instrument in detecting adulteration in various common food products requires some amount of expert knowledge, but this is readily gained with a little experience. The characteristics of the different starch products, for instance, under the microscope are easily learned.

"To the naked eye all these starches appear as a fine white powder, but under the microscope grains or granules are seen which vary more or less in shape, size, rings, etc. In the case of potato starch, for example, the grains are large with smooth outlines, while rice starch has small grains with angular outlines. Here is a specimen of potato starch adulterated with a considerable amount of cornstarch. The grains of the latter are easily distinguished by their angular form.

"In the case of spices, most of the substances used for adulteration have a structure very different from the genuine articles. For example, although pepper adulterated with ground peas or beans may not always be detected by means of the chemical test of the expert, especially when olive pits or pepper shells have been added to counteract the excess of starch present in peas, the microscope will reveal such adulteration at once by showing the presence of the large starch grains characteristic of certain legumes.

"In pepper the starch is present in angular masses made up of small grains. Here is a specimen of this sort of adulteration in which the angular masses of pepper are readily distinguished from the nearly spherical starch granules of the nearly identical bean starch. Such a manufacturer has added so large an amount of corn meal or foreign ground shells and fruit stones to a pepper as to make the adulteration apparent to the taste by the lack of pungency, which is often corrected by adding a small amount of cayenne pepper. The microscope easily detects a trick of this kind because the tissues of the added substances are distinctly different from normal pepper tissue. Here is a sample of pepper which is grossly adulterated with ground olive stones, in which the differences in size and form of the starch cells are well exemplified.

"Sometimes cayenne pepper is adulterated with colored corn flour and ground wood. Here is a sample of such an adulterant composed principally of powdered sawdust, the fibrous character of the wood differentiating it clearly from the pepper. "The microscope is a thoroughly efficient detector of adulteration in the cases of coffee and chocolate preparations. In the former, roasted chicory, cereals, and peas, and in the latter starchy materials and cocoa shells are sometimes used for adulteration.

"Coffee, being the seed of a plant has a structure which is very different from chicory, which is a root. The cell walls of coffee have a characteristic beaded appearance which is present in but few other seeds. Even after roasting and grinding these beads can be easily distinguished, while chicory contains sap vessels by which it can be detected.

"Chocolate and cocoa are made from the seeds of the cocoa plant, to which foreign starches are sometimes added. From the best grades of these products the shells are removed, but in the poorer grades the shells are left and even additional ones are added. Cocoa beans contain naturally a considerable amount of starch, but the granules are small in size and are easily distinguished from the starchy adulterants such as corn, and wheat flours, or potato, corn, and arrow-root starches. I have examined an artificial chocolate coating which was composed of cocoa shells, cornstarch, beef tallow and some mineral matter, probably used as a coloring substance.

"Artificial jellies, jams and some kinds of confections are often thickened with gelatine, starch, agar-agar, gum tragacanth and gum arabic. Some of these are difficult of identification while others can be readily detected.

"Agar-agar is a product made from certain seaweeds and usually contains shells of microscopic sea creatures. The presence of starch is easily discerned. Gum tragacanth and some other like gums, when allowed to swell in water, produce a distinctive structure, which is disclosed under the microscope even in such products as ice cream and marmalades.

"Here is a sample of thickener for cream composed of cornstarch and powdered gum tragacanth. In this case the cornstarch appears as the angular particles, while the sticky substances near the center of the field are swollen fragments of the gum.

"A rather curious use of the microscope as a food detector is in the determination of the flowers from which honey is made. This is of practical value in the analysis of honeys purporting to be from certain flowers. Although bees will almost invariably gather honey from several kinds of flowers, sometimes one or another of these predominates to such an extent as to impart a distinctive color and taste, enough to allow the honey to be called by that name. With the aid of the microscope it is easily ascertained whether a sample of apple blossom honey or an orange blossom honey is really largely derived from the source claimed. This result is due to the fact that the microscope shows clearly the different forms of pollen of the various plants from which the bees derive the honey."

"The total wealth which Mrs. Arriens left is declared in the petition, which is for separate maintenance, to be \$60,000.

Mrs. Arriens says she lived two years with her husband after their marriage in 1902, and then because he was drinking hard and not supporting her, she left him for two years. Then Arriens, the petition says, promised to quit drinking and to support her, but did not keep his word.

THIS WOMAN RICH ON PAPER

Millions of Real Estate Held in Her Name.

USE FOR WOMEN AS DUMMIES

She Rides in a Trolley Car Like Other Stenographers and Owns Property Only Ten Seconds at a Time.

NEW YORK, March 12.—"That girl," said a real estate broker, nodding toward a young woman further down in the car, "has more property in her name than any other person in Brooklyn. The realty record books carry her as the possessor of many, many millions. Some of the biggest parcels in Brooklyn are held in her name.

"Surprised that she rides in a trolley car instead of in her own automobile? Well, this property has all been sold. In fact she has rarely owned any piece of it more than ten seconds—just while she was receiving a deed in one hand and giving a deed with the other.

"She is the chief stenographer in the office of a big title insurance company. A busy piece of real estate from B, but does not want the public to know of his ownership. B makes a deed to our stenographer friend. She makes a deed for the same property with the name of the buyer left out. A gives her the deed B has made and she gives him the deed in blank.

"The deed to the girl goes on record, the title company issues to her a policy of title insurance, and she is, publicly the owner of the property. But A has her deed, legally executed, and the insurance policy. When he gets ready to sell, maybe years hence, he merely puts in the name of the buyer and the instrument is recorded. A has never appeared as the owner.

"The city is satisfied so long as the taxes and assessments are paid on the property and does not interest itself in the ownership. If A wants to give a mortgage on the property he can do that through another woman dummy without his name ever appearing.

"Why do people want to hide their real estate holdings? Suppose a buyer is after all the property in a block. He gets one piece. If the deed is recorded in his name it might indicate to the other owners in the block that he would be likely to want their holdings, too. Then prices would soar and he'd have to pay dearly for the rest of the block. Sometimes years ago he consumed and a dozen brokers and female dummies are used to get a single parcel together.

"Then there are not a few men who want to be in position to sell their real estate without asking their wives' consent. By the use of a female dummy the wife is eliminated, for the husband never owns the property. He holds it and controls it. Some wives never know that their husbands buy and sell real estate.

"Not fair for the wife? Well, I don't know about that. Recently a client of mine had a chance to make a quick sale at a big profit. His wife was in Europe and he missed the sale because he could not get her signature. Another client who had had a little spat with his wife was compelled to give her \$1,000 worth of diamonds to induce her to sign a deed.

"Business men often have to make sales quickly or lose big profits. They cannot afford to take chances with the whims of a wife, who, no matter how lovable, may be out of sorts or a bit obstinate on the day the transfer is to be made. I have known wives to demand elaborate details of a sale and then take a week to think it over.

"Any other uses for the woman dummy? Sure. Wall street is not the only place where wash sales are made. Suppose realty is moving slowly and sales are few in a section. The dealer about the new subway terminals or along the new subway in Brooklyn, where there ought to be activity. Nothing brings in new buyers like sales.

"Suppose half a dozen brokers, each with property to sell in the same section, get together and decide to make things hum. They go to their principals and arrange, say, fifty big transfers to take place within a single month. By means of women dummies these sales are all made, duly recorded and published.

"When the transaction is closed not a cent has changed hands and not a piece of property has been out of the possession of its original owner. But the public has heard of brisk selling in that particular section and begins to flock in. Then prices go up. Fraud? You can call it what you please. If it's illegal.

"When you want what you want when you want it, say so through The Bee Want Ad columns.

Women's Beautiful New Spring Suits and Coats are Now Here



"Charming," you will exclaim, when you see the fascinating fashions to be found in our assortments.

Exclusive models, fine materials, superior workmanship and modest prices, give us an enviable prestige among women of taste and discrimination.

Women's New Tailored Suits, \$16.75

Made of a very fine all wool worsted, in new mannish models, coats 32 inches long and are lined with an excellent quality satin to match. New stylish plaited skirts. We do not hesitate to say that these are the best suits ever offered for the price. Choice of all the new spring shades. \$16.75

Women's Beautiful New Suits, \$25.00

With the object of giving Omaha women the most beautiful suits ever sold in the city at this price, we have devoted an unusual amount of care and attention to the selection of these models. The styles, materials, tailoring and in fact every feature of these garments is much finer than you will find in Omaha, at \$25.00

Exquisite New Suit Models, \$29.75

In this varied and handsome assortment you will find the new Americanized Russian Blouse—distinct in cut and trimming—as well as the strictly tailored effects. Made up in the new grey imported materials, Serges, Sharkskins, etc., all breathy charm, dash and individuality. No Better Suit Sold Anywhere, for \$35.00. Special, \$29.75

New Coats, Capes and Dresses

- New—27-inch Covert Coats, Special at \$5.00
- New—54-inch Covert Coats, Special at \$12.75
- New—54-inch Cloth of Gold Coats, Special at \$16.75
- New—Pure Linen Auto Coats, Special at \$6.90
- New—Broadcloth Capes, Special at \$5.00
- New—Taffeta Silk Dresses, Special at \$15.00



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Among the Women's Clubs

Omaha Woman's Club Will Hold Its Annual Election on April 11, that the New President May Go to the Biennial—District Meetings—Important Announcement Concerning Arrangements for the Biennial.

THE Omaha Woman's club will hold its annual election of officers April 11. As Mrs. Edward Johnson is not eligible to re-election, having completed her second term, a new president will have to be chosen. Several candidates are being offered for the office, but of these, two that were counted among the strongest, have been withdrawn, Mrs. R. E. McKelvey, because of a recent accident, and Mrs. C. W. Hayes, owing to the recent death of her husband. Mrs. F. J. Burnett of the household economics department, Mrs. L. J. Healey of the current topics department, Mrs. Grant Williams of the oratory department and Mrs. H. J. Penfold, at present recording secretary, are also much talked-of possibilities. As yet, no definite slate seems to have been decided upon, and a score of names have been suggested for the various other offices.

The election will be held in April, that the incoming president may attend the biennial of the General Federation at Cincinnati in May. The club always sends a president to this meeting, that she may gain its inspiration and be the more closely in touch with the problems and the various movements in which it is interested.

The Omaha Woman's club will elect its delegates Monday afternoon to the Second district convention of the state federation, to be held at South Omaha the last week of March. A nominating committee may also be appointed in preparation for the annual election of officers.

The program will be given by the household economics department. Members of this department will furnish various features as follows:

- Songs—Miss Emily Boltz.
- Paper—'Foods: A Field of Study' for Women—Mrs. W. Q. Paisley.
- Selection—Mrs. Oehrl.
- Poem—Miss Hoel.
- Story—Mrs. MacMurphy.
- Patterns—Conducted by Mrs. C. H. Townsend, Mrs. H. L. Beard and Miss Boltz.

The discoveries and recipes will be contributed by members of the department and printed in leaflet form, one to be given each person, with the compliments of the department. Additional copies may be obtained at 5 cents each.

More applications for membership in the General Federation have been made this spring by individual clubs in Nebraska than ever before, and the delegation to the Cincinnati biennial, May 11-13, promises to be full. Indications are now that an entire car will be required for the party. Minnesota, Iowa and South Dakota delegations will make up a train from Chicago and Nebraska has been asked to join this party. The Omaha Woman's club will elect its delegates to the biennial April 14. The Cincinnati local biennial board is urging that all women expecting to attend the biennial notify them at the earliest possible time.

Programs for the district meetings are rapidly being completed and several dates will be announced. Owing to continued illness and a prevalence of diphtheria at Ord the convention of the Sixth district to have been held there April 11 and 12 has had to be called off. It has not yet been decided whether this program will be given in conjunction with the other Sixth district meeting at Scott's Bluff April 6 and 7, or whether another town in the eastern part of the district will take it. The Scott's Bluff program is complete.

The following notice has been issued to biennial delegates and alternates: Hotel headquarters of the General Federation will be at the Hotel Grand Central, New York City.

Thursday morning at 10 o'clock on "Dairy Sanitation and the Modification of Milk for Babies," by Prof. Mellick, lately of the dairy department of the Maryland Experiment station. All members of the club may attend.

The literature department will hold its next meeting Wednesday, March 16, at 10 o'clock. Mrs. M. Langfeld, leader. The lesson will be a continuation of the study of the modern short story and Mrs. Henry McDonald will give a paper entitled "The Wonderful Century and Its Effects on the Short Story." Mrs. Edward Johnson will give a paper on "The Real American Story."

Miss Mary Gunther of Philadelphia has been appointed superintendent of the new Physicians and Surgeons hospital in Wilmington, Del.

Mrs. Alice H. Tiernan is said to be the first woman to practise in the criminal courts of Tennessee. Mrs. Tiernan comes from Galveston, Tex., and studied law after her marriage. She is now practicing in Memphis as her husband's partner.

Mrs. Simon Baruch and Mrs. Clarence Burns were among the speakers at the reception given at Delmonico's the other day for the purpose of interesting the public in the Widowed Mothers Fund association. The association was organized a few weeks ago to give temporary aid to women in straitened circumstances. It is nonsectarian. About 500 persons of all creeds and nationalities attended the reception.

The new national home of the Daughters of the American Revolution in Washington has just been completed. It is called Continental Hall and has been more than seven years building. It is near the Corcoran Art gallery, not far from the White House and the War department and within sight of the Washington monument. The national officers of the organization have taken possession of the offices reserved for them in the building.

Mrs. Thomas S. Henry of Newark, N. J., was elected president of the Equal Franchise league, which has just been organized in New Jersey. This organization is a branch of the Equal Franchise league of New York of which Mrs. Clarence Mackay is the founder and president. The first meeting of the branch organization was at the home of Mrs. Richard Stevens, Castle Point, Hoboken. Mrs. Mackay presided and there were several hundred charter members enrolled.

The Woman's college of Illinois received during the year just past gifts in money aggregating nearly \$4,000. Miss Mary Kalluge gave \$1,000 of this sum, Mrs. Mary Green of Jacksonville the same amount, and a woman in Jacksonville who stipulated that her name was not to be given, \$3,000.

Miss Carrie E. Crane was the first city clerk appointed in Gloucester, Mass., under a new ordinance. She has been employed in the office of the city clerk for more than twenty-five years and her recent appointment is in recognition of long and faithful services and "for the best interest of the office."

The Woman's Medical society of Washington has just been organized, with Dr. Mary Parsons as president, Dr. Sofie Nordhoff-Jung as vice president and Dr. Emma Lotz Elyas as treasurer and secretary. This is the first organization of medical women in Washington.

Mrs. Knox, principal of Haverdel college, Toronto, and Miss Keys, sister of Prof. Keys, now on the staff of Vassar college, are the two women being considered by the governors of Toronto university for appointment as dean of the university. If either is appointed she will be the first woman on the staff of the University of Toronto.

Miss Anna Barber, a native of Colorado Springs, has been selected to make the plans for the installation of a modern heating system in the palace of the sultan of Turkey. For several years Miss Barber

has been connected with a London firm engaged in the manufacture of heating apparatus. Soon after taking her degree as an architect she determined to devote her attention to the science of heating large buildings. The task now before her is difficult because the palace is exceedingly intricate in its arrangement, containing several hundred halls and apartments.

Mrs. William R. Thompson, class of '71, has just been elected a trustee of Vassar college, to hold office until 1914. Mrs. Lucien Howe, class of '82, was elected president of the alumnae association. Mrs. Howe has been the chairman of the fellowship committee for several years. The fellowship is held by Miss Winifred Scott, class of '04, whose work at Columbia university is comparative literature.

Bryn Mawr college offers thirty resident fellowships and twenty-eight graduate scholarships. Five of these scholarships are open to British and five to German women only. The fellowships are valued at \$425, except the research fellowship in chemistry, which is of the value of \$750. The foreign scholarships are valued at \$405 and are equivalent to free residence, board and tuition for an academic year. The remaining eighteen graduate fellowships are open to graduates of any university or college of acknowledged standing and are valued at \$200 each.



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