A BUNCH OF DATES RIPENING IN THE DESERT REGION OF SOUTHERN CALIFORNIA

OUR PLANT IMMIGRANTS

By DAVID FAIRCHILD

IN CHARGE OF FOREIGN SEED and PLANT INTRODUCTION, DEPARTMENT of AGRICULTURE

THE SANDERSHAW MANGO OF INDIA FRUITING IN FLORIDA

To the traveler who has wandered with men of many tastes all over the world, the thought must often have come, "Of what use are all the strange plants which make up the landscapes of the pictures?" The globe, with its kaleidoscopic panorama of people, animals, and plants, has been whirled before you, as it were, and you have in your minds the picture of a ball circling through space, covered with a film of plants, animals, and men in constant change. So varied is this film of plants that there are probably half a million distinct, specific forms in it, and yet man uses only a few hundreds for his own purposes.

To change, in a measure, the distribution of the really useful plants of the world is what the office of foreign seed and plant introduction of the Department of Agriculture is trying to do. The motive underlying this work might be called the ambition to make the world more habitable. If one is inclined to be pessimistic with regard to the food supply of the world, he has only to talk to any one of the enthusiasts of the Department of Agriculture to get a picture of the widening vista of agricultural possibilities which would make him realize that the food problems of the race are not hung in the balance of our great plains area, and that the food-producing power of the world is still practicaly unknown, because we have just begun to study in a modern way the relative performance of different plants.

We may not always grow the plants we do now. Some of them are expensive food producers, some produce foods that are difficult to digest, and some we may leave behind as we learn to like others better.

What to grow was not so serious a question to the early Phoenician peasant, who knew perhaps a dozen crops, as it is becoming to the American agriculturist, who can pick from the crops of all the world the one best suited to his land and climate. Changes come so rapidly nowadays that if a man today talks of "pears" he may mean what are ordinarily thought of as pears, or he may refer to alligator pears which he is growing in Florida, or prickly pears which he is cultivating in Texas. Both the alligator pear and the prickly pear have come in as crops to be reckoned with within the past fifteen years, and already the stock-raisers of the South are wondering if they should plant spiny or spineless forms of the prickly pear cactus, and the fruit-growers of Florida are inquiring as to which of the several varieties of alligator pear tree is going to be the most productive and profitable.

To help find the plant which will produce the best results of any that can be grown, on every acre of land in the United States, is, in general, the broad policy of the office of seed and plant introduction of the bureau of plant industry.

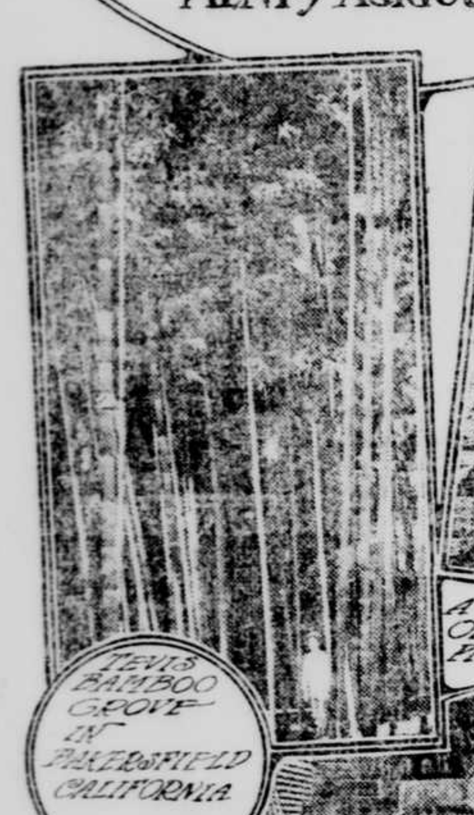
Although begun in a systematic way and as a distinct activity of the department in 1897, it has barely touched the fringe of its possibilities. The 31,000 different plant immigrants which have come in, and have either died or are now growing somewhere in this country, represent a small beginning only, and have merely helped to show the greatness of the possibilities which progress in agricultural research is creating.

"You will soon have all the crops in," is the remark of those who have given the matter little thought. Our own lives change with every moment of time, and so do the lives of plants. The strains of potato which our grandfathers grew are, with few exceptions, different from the strains in vogue today; and, fitting their lives into the various conditions of soil and climate, the original wild South American species of potato, Solanum tuberosum, assumes in the hands of men a thousand different forms.

In whatever parts of the world new forms may spring into existence it matters not; our potato-growers should be able to try every sort of importance and every wild, hardy species, whether it comes from the manse of a Scottish parson, is discovered as a wild species along the Paraguay river by an American railway bridge builder, is found among the mountains of Colombia by Jesuit priest, is gathered by a forest ranger in the dry regions of an Indian reservation in New Mexico, or is secured by a trained collector from the Chiloe islands off the coast of Chile. It makes little difference; they must all come in as plant immigrants to show what they can do in the gardens of American experts. There is always the chance that they may be thrown out as unprofitable; but, if they have desirable characters, they can be blended with others, or exploited with others, if they are superior for any of the potato regions of this country.

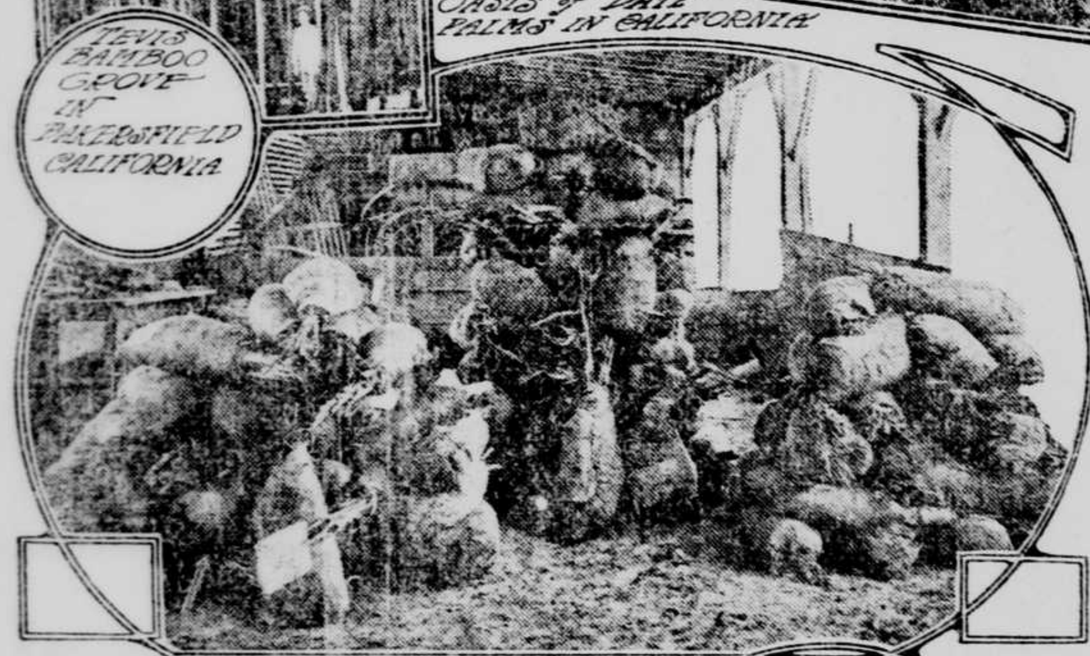
It may be new to many that every day plant immigrants from different parts of the world arrive in Washington, and every day, through the mails, hundreds of these disinfected arrivals go out to find a new home in some part of the country.

It is a difficult matter to give an adequate impression of the magnitude and importance to the country of this stream of new plant immigrants which for 14 years has been pouring into the country, and has been directed by a great and growing body of research men and women into those regions where it was thought they might make their homes.



TEVIS BAMBOO GROVE IN BAKERSFIELD CALIFORNIA

A 15-ACRE OASIS OF DATE PALMS IN CALIFORNIA



PLANT IMMIGRANTS FROM BAGDAD

In the brief space of a short article, and to avoid what would be almost a bare enumeration of plant names, I prefer to treat only of a few of the many important problems with which the office is working, passing by, also, the introduction of the Durum wheat, the Japanese rice, and giving the Siberian alfalfas, which are earning for the farmers of the country many millions of dollars a year, a bare mention, for the reason that they have been so often described in the newspapers of the country.

The mango is one of the really great fruits of the world. India, with its hundreds of millions of people, has for centuries held it sacred, and celebrates annual ceremonies in its honor. The great Mogul Akbar, who reigned in the 16th century, planted the famous Lak Bag, an orchard of a hundred thousand mangoes, and some of these still remain alive. It is a fruit the importance of which Americans are at last beginning to recognize, notwithstanding the unfortunate discredit which the worthless seedling mangos of the West Indies have givên it in the minds of Americans generally.

There are probably more varieties of mangoe than there are of peaches. I have heard of one collection of 500 different sorts in India. There are exquisitely flavored varieties no larger than a plum, and there are delicious sorts the fruits of which are six pounds in weight. In India, where the wage of a coolie is not over 10 cents a day, there are varieties which sell for $6.60 a hundred, and the commonest sorts bring over a cent apiece.

The great mango trees of India are said to reach a height of 70 feet, and are so loaded down with fruit that over $150 worth has been sold from a single tree.

These fine varieties, practically as free from fiber as a freestone peach, can be eaten with a spoon as easily as a cantaloupe. Trainloads of these are shipped from the mango-growing centers of India and distributed in the densely peopled cities of that great semi-tropical empire; and yet, notwithstanding the great importance of this fruit, the agricultural study of it from the new standpoint has scarcely been begun. I believe that it has never, for example, been tested on any but its own roots.

We have gathered together in Florida and Porto Rico and Hawaii more than a hundred varieties, and some which we have fruited have already attracted the attention of the fancy fruit-dealers, who agree that the demand for these will increase as fast as the supply can be created, and maintain that extravagant prices, such as 50 or even 75 cents apiece, will be paid for the large, showy, delicious fruits. Last year 300 dozen Mulgoba mangos were sold in Florida for $3 a dozen. The Governor of Porto Rico has committed himself to a policy which, if carried out, will cover the island with hundreds of thousands of mango trees of the better varieties.

THE TUNG OIL TREE OF CHINA AT THE FOOT OF MOUNT RUBIDO, RIVERSIDE, CALIFORNIA

One of the oldest cultivated plants in the world is the date palm. At least 4,000 years ago it was growing on the banks of the Euphrates, and it is this plant and the camel that together made it possible for the Arabs to populate the great deserts of northern Africa and Asia. The date palms would grow where the water was alkaline, and the camels were able to make long journeys across the desert to take the dates to the coast to market and sell them for wheat and olives.

In these deserts of the old world, millions of Arabs live on dates, for the date palm can be cultivated on land so salty as to prevent the culture of any other paying crop, and it will live in the hottest regions on the face of the globe; not even a temperature of 125 degrees F. will affect it. This obliging plant does not, however, insist on such temperatures, but will stand some frost, and has been known to live where the mercury falls to 12 degrees F.

It is also the only wood obtainable in the oases of the Sahara, and on the shores of Arabia boats are made of it.

The date palm has both male and female flowers and they occur on separate plants, and the Arabs have to plant one male for every plantation of a hundred females, making a harem as it were. The artificial pollination or fertilization of the female palms is one of the most interesting processes practiced with plants, a spray of flowers from a male palm being bound with a bit of palm-leaf fiber in each inflorescence of the female tree. Propagation of the date palm can be accomplished by means of seeds, or suckers, which are thrown up at the base of the palm. Suckers will start, however, on land so salty that the seeds refuse to grow on it.

Four years from seed, trees of some varieties begin to bear and in six years will have paying crops of dates. They live to a much greater age than almost any other of the fruit trees, and specimens a century old are said to be still a good investment.

The date is not a dry-land crop, but requires irrigation to grow and produce fruit. A plantation once established requires to be kept free of weeds, to be pollinated when the palms come into bloom, and to have the fruit harvested when ripe. Of insect pests we know too little as yet, though the prospective planter should count this in his estimate of expense; remembering, however, that modern scientific methods have overcome the greatest fruit pests, and that these on the palm are not different in general character from those which are now under complete control.

Very little pruning of the palms is necessary, and the harvesting is very simple, since the dates grow in great bunches, which often weigh from 20 to 40 pounds apiece.

There are over a hundred varieties of dates now growing in the government gardens in California and Arizona, from which are being distributed to prospective planters suckers as they grow. This accomplishment of the Department of Agriculture is not the result of any one man's effort, but the product of at least a dozen minds working over a period of 20 years and in seven different countries.

There are among these hundred varieties those which candy on the tree, others which are used mainly for cooking, and some which are hard and not sticky. There are early varieties and late-ripening ones, varieties short and long, and every sort can be told by the grooves on its seeds.

The date as a delicacy is known to every American child, but, as a food, remains to be discovered by the American public. When the date plantations of Arizona and California come into full bearing, as they should in about ten years, the hard, dry dates, for example, now quite unknown on our markets, are sure to come into prominence and find their way to the tables of the poor as well as of the rich. The heat of our American summers is forcing us to study the hot-weather diets of other countries, and dates are sure to become important items of food.

The persimmon of the South, on which the opossum fattens, is a very different fruit from its relative the kaki, or persimmon of the Orient, the growing of which is so great an industry in Japan as to nearly equal the Japanese orange-growing industry in importance. Our persimmon is a wild fruit, which will some day be domesticated, while the kaki has been cultivated so long that it is represented by different forms and colors. It is true that the Oriental persimmon has been grown in this country; in fact, the census records a production of 68 tons; but this is scarcely a beginning as compared with the 194,000 tons which is the output of Japan.

We have misunderstood the persimmon. Our own wild ones we can eat only after they have been touched by the frost, and the imported Japanese ones we have left until they become soft and mushy and almost on the verge of decay. We never thought until quite recently of wondering whether in a land where the persimmon had been cultivated for centuries they would not have worked out some artificial method for removing the objectionable pucker. In Japan we find this is done by packing the fruit in barrels saturated with sake, and Mr. H. C. Gore, of the Department of Agriculture, is now working out new methods of processing the Oriental persimmon, so that it can be eaten when hard as an apple, and there will no longer be any reason why it should not take its place among the great fruits of the country.

The whole question of the improvement of the persimmon has been opened up, and we are getting for this work the small-fruited species called "lotus," from Algeria; a tropical species with white, cheese-like pulp, from Manila, Mexico, Erithea, and Rhodesia; species from Bangalore, from Sydney, from Madras, from the Nankau Pass, in China, and from the Caucasus.

If the Oriental timber bamboo had produced seeds oftener than once in 40 years it would long ago have been introduced and be now growing in the South. The fact that it had to be brought over in the form of living plants, and that these plants required special treatment, has stood in the way of the quick distribution of this most important plant throughout those portions of America where it will grow. After several unsuccessful attempts, a beginning has at last been made, and the department has a grove of Oriental bamboos in northern Florida, and a search is being made in different parts of the world for all those species which are adapted to our climate.

In this country I predict it will be used earliest for barrel hoops, for cheap irrigating pipes, for vine-stakes and trellises, for light ladders and stays for overloaded fruit trees, for baskets and light fruit shipping crates, and for food. As wind-breaks and to hold canal banks and prevent the erosion of steep hillsides, there are species which excel all other plants, while for light furniture and jalousies it is sure to find a market whenever the green timber is available.

The Fifth Stenographer

* * *

By EDMUND MOBERLY

Mr. Benjamin Holbrook, of the firm of B. Holbrook & Company, jobbers, had been absent from his business for three weeks, and therefore entered his office resolved to get back into harness as speedily as possible. After wading through a mass of accumulated correspondence, he rang for his confidential stenographer. She failed to appear. A second and a third ring were equally barren of results. Mr. Holbrook grew indignant. With a savage jab, he touched another button on his desk, and in a moment Watson, his chief clerk, stood at his elbow.

"Watson," he demanded, "why doesn't Miss Gayley respond to her call?"

"Miss Gayley was married while you were away."

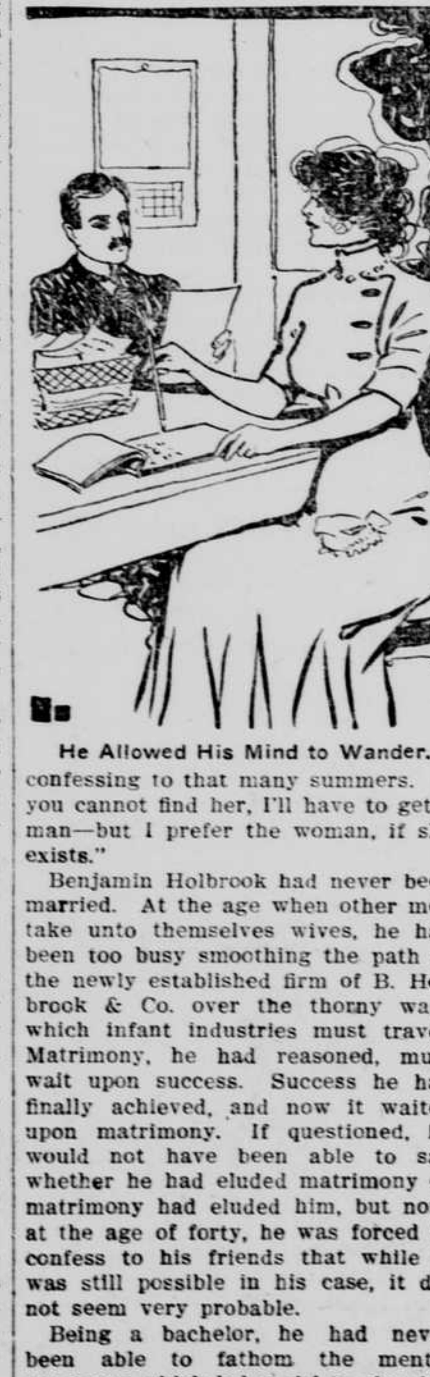
"An office romance?"

"Yes," responded Watson with a smile. "Smithers, one of the bookkeepers, is the other guilty party."

"Well, he got a sensible wife, confound him. Give him a ten per cent. raise. At the same time he robbed me of a good stenographer just when she had become efficient and valuable. It strikes me these cases are becoming pretty frequent in this office, aren't they, Watson."

"This is the fourth in three years."

"Exactly," agreed Mr. Holbrook. "Four in three years, of which your own case was the first. Matrimony is a noble institution, Watson, but it cannot be allowed to play hob with this business the way it has been doing. I propose now to get a stenographer who will regard this office as something more than a stepping-stone to marriage. Miss Gayley's successor must be at least thirty-five years old. You will advertise at once for a lady confessing to that many summers. If you cannot find her, I'll have to get a man—but I prefer the woman, if she exists."



He Allowed His Mind to Wander.

Benjamin Holbrook had never been married. At the age when other men take unto themselves wives, he had been too busy smoothing the path of the newly established firm of B. Holbrook & Co. over the thorny ways which infant industries must travel. Matrimony, he had reasoned, must wait upon success. Success he had finally achieved, and now it waited upon matrimony. If questioned, he would not have been able to say whether he had eluded matrimony or matrimony had eluded him, but now, at the age of forty, he was forced to confess to his friends that while it was still possible in his case, it did not seem very probable.

Being a bachelor, he had never been able to fathom the mental processes which led a girl to abandon a comfortable salary in his office for the purpose of sharing the salary of a male worker in the same office, and in much less degree had he been able to understand the line of reasoning which led the aforesaid male worker to persuade her to do so.

In employing office help, the head of the firm was able to discern merit at a glance. All his male subordinates had good qualities. The four women who had reigned in brief succession in the office were all well endowed in this respect—so well endowed, indeed, that four of the male subordinates had discerned their merit even better than the boss, with the result that for the fifth time in three years that gentleman, with all a bachelor's dislike for change in the existing order of things, faced the disagreeable prospect of becoming accustomed to a new stenographer. It was this fact, coupled with the knowledge that there were yet several unmarried men in the office, all with good qualities, that led him to issue his edict concerning the age of the next woman who should grace his establishment.

Watson's advertisement brought but one applicant to Mr. Holbrook—a handsome, somewhat sad-faced woman, whose gown of black well became the slender plumpness of her figure.

"I am Miss Holmes," she stated simply. "I have come in answer to your advertisement for a stenographer."

"Thirty-five years of age, or older?" added Mr. Holbrook.

"I am able to meet that condition," was the calm reply.

The head of the firm was forced to confess to himself that she did not look it.

"Have you had any experience in this capacity?" he asked.

"None, whatever," she answered. "But I have a good education and have fitted myself carefully for such a position, and I feel I can meet all the requirements set forth in your somewhat unusual advertisement."

"It was a little out of the ordinary, wasn't it?"

"Yes."

"But there was a reason for it. During the last three years I have lost no less than four stenographers through matrimony. It was a desire to secure some one who would view business as other than a stepping-stone to marriage that prompted that ad."

"I can safely say that there is no prospect of my making such use of it," replied Miss Holmes.

A trial showed that she was well equipped for the position. Mr. Holbrook reflected, also, that he had never recognized so many good qualities in an applicant before. He therefore engaged her, and in a few weeks found reason to congratulate himself; for she developed an efficiency even above that of her very efficient predecessors. In a few months he began to regard her as indispensable, and found himself regretting that she was near him in office hours only.

And then it came. He was dictating to her one day, he on the one side of the big, flat office table, and she on the other, facing him. While grasping for some solution to a knotty business problem, he allowed his mind to wander. The plainly furnished office faded from his vision. The table became a dining table, covered with snowy linen upon which silver gleamed and crystal sparkled—such a dining table as one sees in a home; but Miss Holmes faded from the picture not at all. In his reverie he saw her sitting opposite him at the dream table—and then Benjamin Holbrook, bachelor, aged forty, came back to earth with a rush. He was in love. He was certain of it, despite the novelty of the sensation.

Mr. Holbrook was accustomed to direct methods.

"Miss Holmes, can you still safely say that there is no prospect of your making business a stepping stone to marriage?" he asked suddenly.

Miss Holmes was also in a reverie. She came out of it in confusion.

"I—I think so," she managed to gasp.

"Then there is a doubt?"

"Yes; there is a doubt," she admitted.

"I ask you to give me the benefit of it."

"Oh, I am not thinking of resigning," she protested.

"I am not asking you to give the business the benefit of the doubt, Miss Holmes; I am asking you to give it to me. I desire you to resign. Can't you see what I am getting at? I love you. I want you to be my wife."

"Wouldn't that be playing hob with the business?" she asked after a pause, smiling through her blushes.

Mr. Holbrook rose from his chair and started toward her. She fled to the door in a panic and paused with her hand on the knob.

"The business is inured to such experiences by this time," he laughed, still going toward her. "You must remember that my own romance has a quartet of precedents right here in the office. However, it shall be the last; for my next confidential stenographer shall be a man."

Miss Holmes covered her face with her hands as he reached for her.

"If that is the case, B—Benjamin," she murmured, "you might begin to look around for the man."

The English as Klaw Sees Them.

Mr. Marc Klaw, the American theatrical manager, who was quoted as saying that the English "are just about as emotional as a Limburger cheese," writes that what he really said was: "The English are a warm-hearted people, but are usually about as demonstrative as fromage de Brie" (a large flat cheese).

FIRST CLEAN THE SYSTEM

Thing to Do in the Instant That the Presence of Tuberculosis Is Suspected.

The fever of consumption is not primarily due to the presence of the tubercle bacilli in the system. Indeed, unless there are other conditions which cause the bodily temperature to rise it is inclined to be sub-normal.

One of the interesting revelations of modern medicine is the fact that these germs may exist a long time in the human body without there being any rise of temperature whatever. This is plainest seen in a tubercular abscess, but it is also seen in the many cases in which for long periods there is no fever. What does cause the fever in the earlier stages is a disordered state of the alimentary canal. The stomach and bowels become deranged and full of toxins which, becoming absorbed, poison the system and cause the temperature to rise. For years it has been the practice of the writer to reduce any temperature to normal, especially during the first stages of the disease, simply by washing out the stomach and effecting a complete cleansing of the intestinal tract. Later on the fever is due to the absorption of broken-down lung tissue and to ptomaines, and so is quite another story.

When, therefore, tuberculosis is suspected the temperature should be taken and if fever is present the person should invariably go to his physician and have his digestive tract thoroughly cleansed, when by proper diet and outdoor life he will be able almost certainly to overcome the presence of the tuberculous germs.

Reassuring.

Marks—I know your wife didn't like it because you took me home unexpectedly to dinner last night.

Parks—Nonsense! Why, you hadn't been gone two minutes before she remarked that she was glad 't was no one else but you.—Tit-Bits.

Took the New Crackers

Remarkable Business Man Is Uncle Isaiah, Who Keeps a Grocery in a Massachusetts Town.

On the "depot road" in a little seaside town in Massachusetts Uncle Isaiah Saunders keeps a small grocery shop. It used to stand near the dock and supply the small schooners along the sound, but 30 years ago it was moved up a mile into the village.

"How much are milk crackers a pound, Uncle Isaiah?" the young daughter of one of his regular customers asked him one morning.

"Wa-al," Uncle Isaiah replied, after some deliberation, "that depends on which lot you want them out of. If you want them over there," he pointed to a box on one of the nearest shelves, which showed through its glass face that it was somewhat less than a quarter full of not very fresh looking biscuits, "they'll cost you 12 cents a pound. I have to charge you 12 because they cost me 10½ cents a month ago."

He paused persuasively.

"But if you want them," and he indicated with some reluctance a new tin, "you can have them for 10 cents a pound. Crackers went down last week, and they only cost me eight."

"I'll take the fresh ones," the girl said; then, seeing a shadow fall on the face of the old man, who had been waiting her decision with some anxiety, she cried: "You couldn't think I would pay more for stale crackers than you are offering fresh ones for, now could you, Uncle Isaiah? But I'll take the broken ones if you'll let me have them for 10 cents. It really doesn't make much difference to us, and I suppose you want to sell the stale ones."

The pennies count in little old grocery stores in New England, where the profit of a year is often not more than three or four hundred dollars.

"I can't let you have them crackers for 10 cents, Nellie. I'd like to do it, but I can't," Uncle Isaiah replied firmly. "They cost me 10½ cents," he sighed.

"You'd better take the new ones."

And Nellie did.—Youth's Companion.

The Species.

"Is that party to be a stag affair?"

"I don't know about the stag part, but it's going to be a dear affair, all right."