Editorial Section **THE SUNDAY JOURNAL.** Part II.

MINNEAPOLIS, MINNESOTA, SUNDAY MORNING, NOVEMBER 11, 1906.

EXPLORING for NEW AMERICAN CROPS

How Uncle Sam's Scientists Are Ransacking Strange Lands for New Food Plants.

CAMEL-LOAD OF BERSEEM, CAIRO, EGYPT.

PHOTOGRAPHING DESERT PEA, ALGERIA

YOUNG ALGERIAN PALM AT TEMPE, ARIZ.

SPINELESS FODDER CACTUS, TUNIS, NORTH AFRICA.

Isaac F. Marcosson in World's Work.

A CARAVAN made its way slowly out of the Arabian desert and halted on the bank of the Tigris river. The camels, with many grunts, knelt, and the turbaned Arabs began to unload the packs. A lithe, tanned young American carefully watched some tawny packages, wrapped in matting, as they were conveyed to the deck of a P. & O. steamer that drifted lazily at its anchorage. Beyond the camels gleamed the mosques and minarets of Bagdad; far away to the right stretched the yellow sands of the desert, and all around was the brilliant green of oriental vegetation.

An English tourist, who had watched the unloading with interest, approached the young American and asked:

"What is in those packages?"

"Date palms for America," was the reply.

"You don't mean that you are growing dates in America?" asked the tourist in great astonishment.

"Yes," was the reply.

"And who are you, may I ask?" queried the Englishman.

"An agricultural explorer from the department of agriculture," said the American.

Today those palms, gathered in the valley of the Tigris, are growing in an Arizona desert. They are part of 3,000 palm trees in various sections of our arid region that promise to contribute in a few years to our regular crops a fruit peculiarly oriental. They represent part of the far-reaching work of the office of seed and plant introduction of the department of agriculture.

For years we depended on our consuls and naval officers for the introduction of foreign crops and fruits. They came in other ways, too. The Franciscan friars brought alfalfa seed to California and from it grew a crop that now covers millions of acres. They also planted some olive cuttings from which a thousand orchards have grown. A visitor at the capitol grounds at Washington called the attention of the superintendent to the navel orange, resulting in the introduction of this variety which has enriched many Americans. A consul in South Africa sent in some grains of Kaffir corn which has given our western farmers a drought-resistant crop worth millions of dollars every year. But there was no system. We imported fruits and vegetables, yet the whole foreign plant kingdom stood ready to be conquered for the American farmer.

In the early nineties a young man from Michigan named David Fairchild worked in the department of agriculture at Washington. His father, George Fairchild, had drawn the bill providing for the first agricultural experiment station in the United States. Young Fairchild decided to go to Europe to study plant diseases. Some of his friends in the department tried to dissuade him from it, saying that it was wasting his time, but he went. On the steamer he met Barbour Lathrop, a traveler making his third trip around the world. One day in the smoking room young Fairchild told of his desire to explore plants in Java and to study bacteria under Professor Koch in Berlin. Suddenly his companion said:

"Why study microscopic stuff? What you want to study are plants that men can use."

"But I haven't the means," replied Mr. Fairchild, tho the suggestion made a deep impression on him. Six months later, when he was working at the Naples Zoological station Mr. Lathrop came to see him and said: "I've decided to send you to Java." After studying two years in Germany, Mr. Fairchild joined his patron, and they went on an extensive tour thru the Malay archipelago and China. Mr. Fairchild sent home hundreds of specimens, including the mangosteen, "queen of tropical fruits," now being grown in the United States.

On his return Mr. Fairchild found that a bill was pending in congress for a seed appropriation. He saw the opportunity to introduce foreign crops; so he said to Secretary Wilson: "Why not put in a clause allowing you $20,000 for introducing new varieties?" The secretary approved and the appropriation was made, thus making possible the office of seed and plant introduction. Mr. Fairchild was placed in charge. The guiding principle from the start was: "Get the living seeds and plants that promise to be distinctly useful and eliminate the element of finding curious and new species which has so largely entered into botanical investigation."

"We won't send out botanists," said Mr. Fairchild. 'What shall we call our agents?"

"Agricultural explorers," said some one in the office.

Thus the title was introduced, and these explorers have invaded Indian jungles; endured the hardships of Siberian steppes; sweltering in the burning heat of the Sahara, and risked their lives in the plague districts of Bombay. They have touched at every continent and penetrated many lands, and the fruits of their daring endeavors are on a thousand American farms.

The First Explorers.

There was plenty of work to be done. Western farmers wanted an alfalfa that would resist drouth; N. E. Hansen went to Russia and Russian Turkestan, and brought back the Turkestan alfalfa which was practically drouth proof and which yielded a larger crop than the ordinary variety. Thousands of western acres are now producing this new alfalfa.

For years the wheat growers of the northwest complained that rust was eating up and reducing their crop. "We must import a rust-proof wheat," said the department officials. M. A. Carleton went to Russia and obtained the hardy variety known as durum wheat which has revolutionized wheat-growing in semi-arid regions. It yields four bushels more to the acre than the softer wheat formerly grown there; and is a sure crop, and less liable to disease. Last year 1,330,000 acres produced 20,000,000 bushels, yielding the farmers $1,500,000.

The rice growers of Louisiana and Texas complained that most of the nutritive quality of the grain was destroyed in the polishing process in the mills, and that too many of the grains became broken. There was need of a new short-kerneled rice; so Dr. S. A. Knapp went to explore Japan to obtain a variety from a nation that owed its sustenance to rice. He introduced the Kiushu variety. Today half of the rice grown in our great rice producing district is of this kind. It reduces the per cent of breakage in milling from forty to ten; yields two to three barrels more to the acre than the long-kerneled kind, and has a better straw for fodder.

There was need of new crops for the irrigated region of the west. Mr. Fairchild went to Egypt and found in the fertile valley of the Nile the greatest of irrigated forage crops—berseem. On this the Egyptian peasant has depended for centuries to nourish the soil, for it imparts nitrogen. It is planted in the late autumn, and the same ground may be used for a summer crop like melons. It is not a substitute for alfalfa, which is perennial. Berseem is now growing in the valley of the Colorado river.

An Experience in Bohemia.

The work of the explorer was as delicate as it was difficult. Skill and diplomacy were required to enter a foreign land and carry off the seeds or plants that might make the United States a rival. Mr. Fairchild's experience in the hop-growing region of Bohemia was typical. Every year the American brewers import vast quantities of Bohemian hops because they give beer a superior flavor. "Why not grow these hops in America?" said Mr. Fairchild. Arriving at Saaz, a quaint little town in the heart of the hop district, he found that the growers would not sell any hop cuttings, fearing competition.

Finally he persuaded one of them to secure some cuttings which were packed at midnight in a barn, and shipped as glassware to an agent at Hamburg. These hops are now being bred to the sturdy California hops and the experts expect to secure a substitute for the imported variety.

Adventures in Exploration.

A California fruitgrower appealed to the department for citron cuttings. Mr. Fairchild went to Corsica, the home of the citron. He found that the Corsicans had the same objection to the removal of cuttings as the Bohemian hop growers.

While waiting for the mayor of a small town Mr. Fairchild amused himself by taking photographs of the natives. Suddenly a hand was clapped on his shoulder, and he turned to face a gendarme who placed him under arrest. He was marched to a filthy jail where he was charged with being an Italian spy. Unfortunately he had no passport, and he could not very well confess that he was an agricultural explorer seeking to transplant one of the island's choicest products to the United States. The police discovered a notebook with Italian agricultural notes, and this confirmed their suspicions. Finally Mr. Fairbanks discovered that he had a green check of the department of agriculture. It was long and official looking. Flashing this in the face of the guard, he exclaimed:

"This is my passport!" The guard was impressed and let him go. On his way to the coast he stole into a citron grove and obtained some cuttings. These he packed in potatoes to evade inspection, and shipped to the department of Washington.

Equally interesting was Mr. Lathrop's experience in obtaining tobacco seeds in Sumatra, where there is a very rigid rule against letting seeds get outside the island, for the growers fear American competition. Mr. Lathrop told them frankly of his mission and they determined that he should have none. Finally after patient delay he secured some seeds from a native, put them in beer bottles, and successfully got them out of the country.

A New Salad from Japan.

On one occasion Mr. Lathrop and Mr. Fairchild were dining with an American lady at Yokohama. When the salad was served it was found to be made of thin shavings from a blanched plant. With French dressing, it was most appetizing.

"This salad is fine," said Mr. Lothrop, "I've never eaten it before. What is it?"

"Just a Japanese plant called udo that I have adapted," replied the hostess. "The Japanese cook it, but I tried it with dressing, and it proved to be a good salad."

The next day the explorers made a tour in rickshaws and found udo in abundance. It looks like a shrub and renews itself like alfalfa. Some of it, grown near Seattle, Wash., has been served in New York and Philadelphia hotels. A thousand people are now growing and using it in various parts of the United States. It is a substitute for asparagus, with this difference, that all of it may be eaten.

The case of the mango is similar. From a single tree, imported from India, that survived a blizzard in Florida in 1895, thousands of trees have been grown in that state. Native mangoes will soon be on our markets.

Forage crops and Japanese rush for matting are being developed for the abandoned rice fields of the Carolinas; Japanese paper plant is being introduced for the unused hills of North Carolina and Georgia; and Japanese bamboo is being tried on the vast and hitherto unproductive canebrake of the south. Everywhere efforts are being made to replenish jaded or useless soil.

The seed has been sown that will germinate a dozen new plants for nearly every section; hardy Siberian cherries and peaches for the northwest; hard-shelled almonds, paper-shelled walnuts, and pistache nuts for California; sugar beets for Nebraska; rust-proof oats for the Dakotas; Bohemian horseradish for the middle west; the mangosteen for Louisiana.

We are getting new crops for our new lands too—hardy Finnish oats and turnips to grow in the short summers in Alaska; sisal plant (for twine), bananas and mangoes for Hawaii, and mangoes, rice and cocoa plants for Porto Rico.

Propagating the New Crops.

Sending seeds and cuttings is merely the first step in the process of plant introduction. On the grounds of the department of agriculture at Washington is the propagating house where the plants, gathered all the way from Indian jungles to Siberian steppes, are bred and developed. In the receiving room you will see bundles of date palm shoots that have scorched in the Algerian sun. In the hothouse every bed of growing plants tells a story of agricultural adventure. In the center, with its vivid red flowers nodding from graceful stems, is the Manchurian seedless persimmon, grafted on the ordinary American stock. Next door is a young Japanese loquat tree, a new fruit destined for American orchards that represents a blending of Japanese and Algerian varieties. A little farther is a young pistache tree from the Levant, a famous dry-land nut that is expected to grow in California. Near at hand is a bed of delicate green sprouts as fragile as ferns. It is the Japanese rush plant brought over by Mr. Fairchild, who expects it to grow in such quantities that we shall be able to weave our own matting instead of importing $5,000,000 worth every year from Japan. An American has already invented the machine for weaving. Another Japanese plant being developed is the Mitsumata paper plant, which is made into paper that the Japanese use for the roofs and walls of their houses. But no plant is richer in possibilities than the Mexican sisal from which twine is made. We import millions of dollars worth of it every year.

Thousands of applications are received every week from people in all sections asking for new plants for every kind of soil. If a man, for example, wants a fodder crop for irrigated land, he gets the new alfalfa or berseem. Many new plants are introduced with the co-operation of experiment stations, which have selected lists of reliable people who are willing to try new crops. Of course such well established crops as durum wheat, Turkestan alfalfa, Japanese rice, and even some mangoes have passed the stage of distribution and are in the trade.

Every seed or plant introduced contributes a chapter to the history of the work. By means of a card index a record is kept of every detail. Now suppose a man in Florida writes for some mangoes. It will at first be ascertained if he has secured plants before. This is accessible from the correspondence file. If he has not, an investigation is made of his reliability, for no seeds and plants are distributed to people who grow for mere curiosity. If the man is found to be all right, investigation is made whether mangoes will grow in that climate. Assuming that they can be grown, he is furnished with cuttings. With the cuttings is sent a blank form to be filled out with the record of transplanting. The applicant's name is put on a card, and with it is filed the record that he returns. Thus there is obtained a complete record of the plant, from the time it is brought over from some foreign land, until it has been tried and produces results in an American garden.

Of the work Mr. Fairchild says: "I feel that there is no government expenditure which more directly affects the wealth-producing power of the country than this one. It means that the American farmer is no longer tied to the few crops that his forefathers knew. It gives him the material with which to experiment. He ceases to be a plodder along old lines and becomes an intelligent investigator. He is emancipated from the one-crop idea. And the whole world is coming to his aid."

NOBLE'S SONS AS CHEFS KING EDWARD'S SCHEME

New Employment for Impecunious Aristocrats Suggested by Britain's Rulers.

Correspondence of The Journal.

London, Nov. 1.—King Edward has made a wise and practical suggestion. He says it would be a good thing for some of the younger sons of the aristocracy if they sought positions as chefs. This idea was the outcome of an incident which took place while the king was recently visiting Lord and Lady Colebrooke. His majesty and his hostess returned from a motor drive one evening about 7:30 when Lady Colebrooke was told in the presence of the king, by an indiscreet young footman, that there was no dinner in progress as the chef was drunk in bed. An almost identical incident occurred a year ago when the king was visiting the Sassoons.

King Edward sees nothing derogatory in any kind of work and in suggesting a new "profession" for the numerous younger sons of impecunious noblemen he knows of what he is talking. Good chefs earn anything from $1,000 to $25,000 per annum and their behavior of late is, as Mark Twain would say, "causing remark." The male chef is the fashion and the king's notion is that were hard-up scions of the aristocracy to take up the calling they would earn much more money than they could hope to get by going in for business, for which their training ill fits them. And they would start with the initial advantage of knowing what dishes appeal most to luxuriously cultivated palates and appetites.

Furthermore, as their duties would be restricted to the kitchen, matrons anxious above all things that their daughters should wed wealth, would see no risk in having their matrimonial plans upset by engaging poor young honorables to supervise their culinary departments. Always practical, his majesty told the Colebrookes that if his suggestion was taken up he would see that a gentleman chef got the first chance when a vacancy occurred in any of the royal palace kitchens.

"Silent" Smith a Crank.

"Silent" Smith, as the late "Chicago" Smith's millionaire nephew has been dubbed, has been staying with his bride at Tanderagee castle, in Ireland, with the Manchesters. The duchess is devoted to her great friend, Mrs. Smith, but she told someone I know, "the most difficult man in the world to entertain is James Henry Smith; for it did not matter what you did for him he never looked anything but bored."

The one person he shows the slightest interest in is his wife, who can just twist him round her little finger. If she took a fancy to the moon he would have a ladder built and climb himself to reach it. Mrs. James Henry says she will have to give him lessons in manners towards women. He can't put on properly a lady's evening cloak to save his soul and his clumsy attempts at little courtesies towards women amuse everyone considerably. When ladies are present he is even more silent than usual. While at Tanderagee he spent his happiest time in the nursery with the little ducal offspring. Imagine him on all fours crawling around the room with little Viscount Mandeville on his back! The duchess, much to the silent one's vexation, caught a snapshot of him thus engaged.

Makes Good Match.

From a social point of view Miss Annie Benkard, who is a daughter of Henry M. Benkard of New York, is doing well for herself in becoming engaged to Colonel Corbet's son. The Corbets are one of the oldest and most swagger families in Shropshire, wherein their ancestors have dwelt for centuries. But of worldly goods they have little.

The Corbets are very delighted over the engagement as apart from the fact that the bride-to-be has money, she is also a pretty and interesting girl. It came about in quite a romantic way.

Miss Benkard and some friends were motoring thru Shropshire, which is one of the most beautiful counties in England, and just outside Longnor, the Corbets' place, the "car" came to grief. Young Joseph happened to be passing at the time and went to the assistance of the victims, whom he invited into the house until the chauffeur had fixed things up. Between him and Annie Benkard it was quite a case of love at first sight and the upshot is that they are to be married about the middle of next month, and dressmakers work day and night to finish up the trousseau.

At the instance of Comtesse de Castellane, who, everyone knows, was Anna Gould before her marriage, a daughter of Jay Gould, an agent has been commissioned to find her a London house or flat. Thus we hope soon to find her among us. She is heartily sick and tired of Paris, and when her divorce case is settled, hopes to leave it for a considerable time. Her doctors and her friends have suggested this, as they think it is essential for her to get into a totally new environment as the best means of inducing her to forget the horrors she has been going thru. Notwithstanding all de Castellane's brutalities, they say she loves him still. One expected better than this from an American woman! The indignities he inflicted upon her were of the most odious character.

Fancy littering her boudoir table with gorgeous jewels from the Rue de Rivoli for his stage favorites—jewels to be paid for with her money! It was not until he tried to make her receive some of these "creatures" that she put down her foot. People who know the Castellanes best would not be a bit surprised if the count were to get round his wife again with promise of "being good for evermore." He cares nothing for her but, of course, her immense fortune—a goodly portion of which he has got thru—is of enormous importance to the poverty-stricken French nobleman, who has not a sou with which to bless himself save what he gets from his wife.

Judging from the extraordinary large number of well-known Americans here—many of whom are looking for houses or flats—London is unquestionably taking the place of Paris in their hearts. I am told that several of the sumptuous new flats which are being termed "the home of millionaires" are being built on the site of the late Duke of Cambridge's house near Hyde Park corner, are to be rented by Americans. In fact, the syndicate which own the block say it is Americans they are trying to catch for tenants, and it is their luxurious tastes which the architect and builders are keeping in view as the mansion blossoms forth. Central heating and other American notions are being introduced; in short, these new flats will be miniature Fifth avenue apartment houses planted in Piccadilly.

Motor Bus Hurts Property.

Unless some young and innocent wealthy American can be induced to take it, Otto Beit will have a hard task to find a tenant for the house he inherited from his brother, Alfred, in Park Lane. Notwithstanding the fact that some of the most famous mansions in the world are on this avenue, the street as an abode of wealth and fashion is doomed.

Its ultimate abandonment by this class is daily brought nearer owing to the increasing motor omnibus traffic thru it which lasts all day and more than half the night. The weird combination of noises made by these vehicles racks the nerves and renders repose impossible. On the quiet many millionaires are trying to dispose of their houses in Park Lane.

For example, Sir Ernest Cassel, whose guest the king has been on several occasions lately, has been trying to float a company to turn that sumptuous mansion, Brook House, which he acquired only about a year ago, into a hotel. He could, however, get no one to take it up. Altho it was a palace when he bought it, he has ever since been spending money upon it and today it is the most princely house in London. It takes more than a prophet to foretell what may happen in one year in London. Twelve months ago the motor omnibus was unknown in our streets.

—Lady Mary.

CIVIL WAR VETERAN MAKES LILY FARM PAY

One-Armed Maine Man Turns Marshy Land Into Veritable Garden of Eden.

Washington, Nov. 10.—A one-armed Maine veteran of the civil war is one of the few examples in Washington, D. C., of a man who quits Uncle Sam's service voluntarily to branch out for himself along entirely novel lines. Walter B. Shaw is the soldier who, with the handicap of the loss of a limb, had the hardihood to give up a certainty in salary to embark in a new enterprise. Today, as the result of Yankee shrewdness, he is, perhaps, the most successful water lily culturist in the country, has the distinction of having introduced those plants in that part of the country, and supplies the markets for florists from Boston to Montgomery, Ala.

A few miles on the outskirts of Washington Mr. Shaw has a lily farm. He has converted a worthless marsh into eight or ten handsome lakes, which he dug himself, and produces more than 5,000 magnificent lily blooms, which he sells at fancy prices.

Mr. Shaw was born at Vassalboro, on the Kennebec, in the land of water-lilies of hardy growth. When the civil war broke out he enlisted in the Nineteenth Maine infantry and served thruout the war, altho he was only a youngster. In the battle of Spottsylvania Court House, May 12, 1864, he lost his right arm and was sent to the hospital. When he recovered he went to Washington, and thru the influence of friends secured a position as watchman in the war department. Afterwards he was promoted to a clerkship in the office of the auditor of the war department.

When a clerk, in 1880, he bought a small farm near Washington, but afterwards discovered that most of it was marsh and that the rest wouldn't grow anything He had always been fond of water lilies and tried the experiment of importing a few from New England.

A pond about twenty feet square was dug, fed by springs, and well embanked with gravel to keep out the muddy water, and in a short time the transplanted New England lilies were flourishing Gradually he extended his ponds, until now he has four acres of water, all artificial, which have been produced at considerable expense.

This year Mr. Shaw will harvest nearly 60,000 lilies, some of which, in the early part of the season, bring him $6 a hundred. His profit from the lilies has placed him in a comfortable position already, while, in addition, he devotes several of his artificial ponds to the cultivation of grasses which keep aquariums fresh, and which he ships on a big scale all over the country. His ponds have been stocked with black bass, paradise fish and turtles, and the old Maine soldier can enjoy as good a day's sport with rod and reel from his own doorstep as other people obtain only by long journeys to natural haunts of these fish.

"This beats being a government clerk," said Mr. Shaw the other day, when his unique "lily farm" was visited. "When I first experimented with New England lilies I came to the conclusion that they were too expensive for a fad, and not profitable enough for business, unless I went into the cultivation of them on a large scale. After considerable deliberation I decided to give up the clerkship, and I'm not sorry that I did. It doesn't pay a man to stay in the service all his life, and five years ago I resigned my job.

"I paid about $4,000 for my little farm. I wouldn't take many times that for it now. The marsh suggested the growing of lilies. I excavated a pond, made the banks high, and directed the flow of water from the springs which abound on my place. In a short time I had to have more ponds, and I spent $3,000 digging them. All the work had to be done by hand. I brought a large number of lilies from the Kennebec and crossed them with other varieties. Some of the handsomest lilies I have were produced by myself."

DEAD MAN'S JEST SURPRISES RELATIVES

Came to His Funeral Expecting Fortune Each, but Were Sadly Disappointed.

Paris, Nov. 10.—There has just died at Belley an old gentleman of 72, woh during his lifetime was notorious for his eccentric and miserly habits, tho he was in possession of an income of $4,000. His funeral was attended by a large number of relatives, who were astonished to discover only a few coppers in the house after the funeral. The will was then opened, and it read as follows:

"My dear relatives, I am afraid you are going to be disappointed. I know that none of you have any sort of affection for me, and that if you come to my funeral it will be in the hope of dividing up between you whatever I may leave behind me. I now inform you that I have left no money whatever. I sank the whole of my fortune some years ago in a life annuity. All the money that remained over and above what I spent of the annuity I have given away or burned, in order that you should not have it. I hope this will be a little surprise for you."

A search revealed, however, $7,500 worth of annuity stock, the coupons of which appeared to have remained unpaid; but on going to the bank to have these coupons cashed, the heirs discovered that the coupons had been paid, but at the special request of the old gentleman, who had given a separate receipt for each coupon, they had not been canceled. "This is only a little surprise I am keeping back for my heirs," he said.

It appears that on the occasion of the annual village festival this year the old gentleman deliberately burned $10,000 worth of bank notes, which he found he had been unable to spend.