THE SUNFLOWER

A Future Great Industry-Its Present Development

The Helianthus or Sunflower has been grown in some portions of the world as a garden flower several centuries for ornamental purposes. Its value as a commercial plant is of comparatively recent date. It had its first cultivation as an industry in Russia.

The discovery of sunflower oil, as an article of food product, was an accident. It is recorded that a Russian farmer had procured some sunflower seed, to plant in his garden, and around his farm, to prevent sickness among his family. He had been told it would prevent disease, It occurred to him that there must be some medical properties in the seed, and, prompted by this belief, he determined to smash some of the seed, and see if he in the way of medicine.

He put a quantity of the seeds in a mortar, and pounded them into a fine meal, which he found to be rich in oil and others, it is wondeful. not in medicine. He strained the oil thus obtained through a cloth, and found it to be clear and pleasant to the taste, so much so that he spread it over bread, which he ate with a relish, without experiencing any inconvenience. Being so in making bread, with the same satisfactory results.

He made known his discovery to the people in the neighborhood, who gave it the same trial, and united with the farmer in giving testimony as to its good qualities as a food product. He was not content to stop his experiment, in finding a palatable table and cooking oil, for the human family. He believed that the cake, from which he had pressed the oil, was a suitable feed for stock, and acting on this belief, he fed the cake to his cattle and horses, which they readily consumed, and, as afterwards proved, was found to be one of the very best feeds for live stock. The next year a great number of farmers in that district planted large acreage in the sunflower, and commenced a new industry, which has continued to grow and spread in favor, until a large proportion of the farmers in southeast Russia have become engaged in growing this plant as one of the principal industries of the

For an illustration as to how it has grown in favor with the Russians within the past few years, the following figures, furnished by an intelligent Russian expert, show the area of land taken up for sunflower cultivation in that empire. For the years of 1886-7, as compared, with 1881-2, there were 367,889 acres in cultivation.

There are two varieties of sunflower seed, known in the markets, designated as the large, and the small seed. The small kind are raised exclusively for the production of oil, whilst the large seeds are consumed, by the poor classes, for eating, the same asour American peanut. In countries where the plant has been successfully cultivated, it has been very profitable to the growers, where they produce the oil from their own seed, otherwise the middle man makes most of the profit. It requires very little machinery, and not expensive, for each farmer to grind his seed and press the oil out, which he sells to the oil mills for refining, and the cake for stock feed. One of these farmers who has been growing the sunflower with satisfactory financial results, gives the average yield of seeds per acre, on good land, when property prepared "from 1450 to 1600 pounds, and, at the usual price paid for seed in that coun try sets the grower from \$28 to \$31 per acre." His experience has proven that to grow the plant profitably, it is necessary to have a rich soil, which must be

compact and deep enough to sustain the

long roots of the tall stalk, and the

heavy flower, which needs the direct rays

of the sun, as indicated by the name of

the flower, which is continually turning

its face to the sun, while growing. The

hotter the weather, the more sunshine,

and moisture in the atmosphere, the

stronger and larger grow the seeds.

The experience of another grower is given in these words: "Those persons who have cultivated the sunflower for thirty-five years (in Russia) find that the plant does not impoverish the soil, as most other oil producing plants, but rather improves the land. The best soil for growing the plant is mold or black land, mixed with sand. On thin soil, the seeds grow flat and small, and do not yield sufficient oil to make it profitable. Fields where potatoes and peas have been grown without manure, are desirable for growing the plant. It thrives best on newly plowed land, provided the soil does not contain too much clay. The sunflower does not thrive profitably in day soil." Experience of planters has proven that it can be cultivated in mold, formed from dried marshes, but the soil must be entirely free from acids. Level lying land plenty of moisture, near streams of flowing water, is said to be the most desirable for its growth, and where the flower reaches its greatest perfection. Fresh stable manure should never be used or the plant will run to stalk, and does not produce a remunerative yield of seed. The ground should be well covered with old and thoroughly rotted manure in the fall, and carefully plowed and mixed with the earth, so that it will decompose before the next spring.

Mr. Duncan, an extensive cotton planter in the Mississippi bottom, who visited Russia last year, for the purpose of gaining miormation in regard to the culture of the sunflower in that country, gives his observation as follows: "The Russians, who grow the plant, generally sow the seeds after a crop of wheat and tye has been harvested from the land. Some sow after oats, and buckwheat, but have found it less profitable to sow after the latter, as the buckwheat takes up such a large per cent. of potassium from the soil, the flower does not pay. It thrives and heads well after crops of rye and clover. The land intended to be planted is thoroughly plowed in the fall, and left until the next spring, at which time the seeds are sown, either in drills or broadcast. If in rows, they are planted from 11 to 24 inches apart, depending largely on the fertility of the soil. On some of the rich, black lands, they grow from four to six crops without resting the land.

The Russians estimate that the stalks and leaves of one crop, if left on the land, will manure the soil sufficiently, to yield six or more crops consecutively without additional fertilizing. The roots of the

stalks soon rot in the ground and leave their party iz aul rite, and it iz on the THE OWNERSHIP OF THE EARTH about one ton of manure per acre in the soil, which is very fine for the next crop. The plant requires but little attention, and labor, after planting. When it is about ten or twelve inches high, the field should be thoroughly cleaned of grass and weeds. That is all that will be required until harvest. Harvest time vars according to soil, climate and the exposure of the flower to the sun. The usu-I time is fixed, from September first to October fifteenth. When the seeds are fully ripe, the heads of the flower are cut from the stalk, and placed in drying sheds, for the purpose of curing them, the same as curing leaf tobacco. When the flower is fully dry, the seeds are thrashed from the cups, and screened, and run through a fan mill, and are then

ready for the seed mill." Mr. Duncan continues, "After carefully examining every feature of this new, and novel industry, as conducted by the Russians. I am induced to believe that, with our improved modes of farming, together with our climate and soil, that the cultivation of the sunflower can be made one could detect anything, by taste or smell, of the best paying crops that the average American farmer can raise. When we take into consideration the great saving of labor, and expense in producing the crop ready for market, ascompared with

A distinguished botanist and chemist says, "There is no plant known to the chemist, that enters more largely into general use than the sunflower, it only rival being the cotton plant. The flower is grown principally for the oil, but there is no portion of it, from root to leaves but what fills some useful purpose." The much pleased with his first experience, he then fried meat with the oil, and used it new articles, when first placed before the public, in competition with goods of the same class, and they met opposition, which time and energy could only over-

Some persons contended that sunflower oil was deleterious to health, if taken into the system, and should not be recognized as a food product, and that the oil cake was not fit to be used as feed for stock-that it would poison the meat of the beef cattle and the milk from the cows. Public opinion changed, and to-day the refined sunflower oil, in Europe, ranks with the best French and Italian table and salad oil in point of flavor and purity. Olive oil is adulterated largely with sunflower oil, and sold on the market as pure olive oil. In many portions of the country this oil is preferred to all others for the table and for cooking pur-

An American chemist, living in St. Petersburg, in 1868, made a compound lard, taking sunflower oil as the base, which was pronounced superior to hogs' lard, in every respect, for domestic purposes. Some of this compound was sent to a food exposition in Holland, and took the first prize, as pure refined hogs' lard. He then produced, from the same oil, oleomargarine, which also took a premium as creamery butter. From the residuum of the oil he manufactured fine washing and toilet soaps, which are standard brands in Europe and South America. Druggists use the refined oil in preparing liniments, salves, and hair lotions. When properly treated, it is used on the most delicate machinery as a

The annual output of all the sunflower oil mills, in value, is estimated at one million seven hundred thousand dollars, for the oil only. Oil cake is put at six hundred thousand dollars.

The oil cake is largely consumed in Russia, Germany, England, Sweden, Denmark, and Holland, as feed for cattle. The stock raisers and farmers of those countries regard the oil cake as the best food to be obtained for cattle. They claim for it superiority over hemp or rape seed, for producing flesh on beef cattle; and equally as good for increasing the supply of milk in milch cows. A German farmer reports that he increased the flesh on an ox two pounds per day by feeding on sunflower oil cake. These people also hold it in high esteem as a horse feed. They say it produces flesh and gives the hair a lively, slick appearance. The dried cups are fed to sheep, and the faulty seed are used as feed for barnyard fowls. In many sections, where wood is scarce, the stalks and shells are used as fuel, which answers as a good substitute. The ash from the sunflower contains a large per cent. of potassium. Experiments have proven that 1,000 pounds of dried stalks yields 57 pounds of ash, and from 1,000 pounds of ash 350 pounds of the best potassium is obtained. According to the analysis of chemists, the ash of the sunflower contains about 30 per cent. of potassium, and it is also claimed by these scientists, that, if the soil is very rich, the plant will take up 50 per cent. of potassium. The ashes are sold to soap makers. From the fiber of the stalk is manufactured the finest varieties of writing paper, which bear a close resem-

blance in color and texture to parchment. A Russian capitalist, who is on a tour of observation in this country, with a view of investigating the possibility of engaging in the cultivation of the sunflower on a large scale, has come to the conclusion, from what he has seen and learned of the country and climate, that there is no place where the plant can be more successfully and profitably raised than in the United States, with the saving of labor, and expense of raising and preparing the seed for market, certainty of crops, and good prices will be a great inducement to farmers to try the experiment. "Why," said he, "raise your crop, and you will have a market at your farms for every pound of seed you raise. Capital is only waiting for the American farmers to start the enterprise, and a ready sale for seed, oil, cake, stalks, hulls, cups and everything belonging to the sunflower will be in demand.

Home Made Filosofy.

BI UNKEL PETE.

Milyunairs air the filosofers uv kon-

tent. You kant hurt plutockrasy bi votin the

saim ticket it duz. What kongress haint dun fur the peo-

ple wood fil a big book. The religion that iz based on supe haz

a mitey poor foundashun. The man who prays rite and votes

rong iz tu blind tu git tu heaven. We kaint trust the preecher who wont

preech agin the hell he sees. It is wurth aul the salery a man gits

now to defend the reckard uv the Demi-What this kuntry needs az mutch az ennything else iz a lot uv old fashioned

honesty. The fellers what iz got the offices sa

salery questshun.

Thare woodent be enny tramps if there wuzent some tramp maikers. The tramp iz bad enuff, but the man who helps tu

maik him is 1000 times wurser. Sivilizashun konsists in steelin a man's munny and then arrestin him for not havin enny. When you kant mete a man's argument

the best way to git even with him iz to kaul him a krank.

Bi klose count there iz 27 different kinds uv Demikrats with several moar kinds a sproutin.

There izent mutch differents between biziness and steelin. I gess steeling iz a little more respecktibel. If the church expeckts tu du enny gud

fur God and humanity, it has got tu get off the skurts uv aristocracy. It iz mi kandid opinyun that the low prices uv horses iz kauzed bi an overpro-

dutshun uv guvernment jackasses.

The ritch cuss kant see the poverty and distress uv the peepel becoz he has got a gold dollar tu klose tu hiz ize.

Thare izent half as menny Demikratic and Republikan patriots now az thare wuz be4 the konvenshuns was held. A big salary duzent hurt a Demikrat neer as much when he iz drawin uv it az

it duz when a Republikan iz drawin uv Sum men who air drivin mules ort to bee in kongress, and sum men who air in kongress ort tu be drivin mules, and sum others ort tu be in the penitenshiary makin gimlet handels.

We kant see why it iz not constituoshenal fur the guvernment tu isshue greenbacks tu pa men tu work, when it iz konceded that it iz knostitushenal to to isshue them tu pa men tu fite. BUZZ SAW.

WORKING BEAUTIFULLY.

The Rapid Concentration of the land Into Few Hands.

The land-owners increased in number, between 1880 and 1890, in these United States, according to the government census, but 2% per cent while the "renters" increased 40 per cent. At the same time the foreign nabobs and combines, after impoverishing their own countries, and making their own people peasants, are coming over here to reduce our population to the same level. Read the follow-

"Immense areas of valuable ground are held by wealthy foreigners, most of whom are Englishmen. A recent table, widely published, fixed the total of such alien holdings at 23,000,000 acres, distributed

as follows: An English syndicate No. 3, in Texas... The Holland Land company, New Sir Edward Reid and a syndicate in Fiorida.
Viscount Scully, in Illinois.
English syndicate in Mississippi.
Marquis of Tweedale.
Philips, Marshall & Co., London.
German syndicate.
Anglo-American syndicate, Mr. Rogers,
president, London. president, London. Bryan H. Evans of London, in Mississippi..... Duke of Sutherland. British Land company, in Kansas. William Whalley, M. P. Peterboro, Eng-Missouri Land company, Edinburgh, Dundee Land company, Scotland...
Lord Dunmore...
Benjamin Newgas, Liverpool...
Lord Houghton, in Florida...
Lord Dunraven, Colorado...
English Land company, in Florida...
English Land company, in Arkansas.
Alexander Grant, of London, in Kansas
English syndicate, represented by Close
Bros., Wisconsin...
M. Ellenhauser, of Halifax, Nova Scotla,
in West Virginia...

"In the face of this startling array it may well be questioned whether our British cousins did not blunder in calling attention to the few pitiful sheep farms

bought up by a couple of American plutocrats in Scotland. It is fair to add to the Anglo-American estates above enumerated the enormous holdings in Manhattan realty by Squire William Waldorf Astor, the rentals of which are being spent for the maintenance of English estates and decrepit Pall Mall journals.'

Is that not a startling exhibit? Think of it. If that land was divided up into 40 acre tracts it would furnish homes for 575,000 families, of six persons each, or 3.450,000 people. It has been demonstrated in the state of New York that eleven acres will furnish a living for one adult person. In France many of the farms range from one to five and ten acres. And remember that the only political party in the United States that protects against this alien ownership of land, is the People's party. If they get into power they will take possession of those 23,000,000 acres, pay a reasonable price for them, and throw them open to actual settlers at cost price. No man who is not a citizen or resident of this country should be permitted to take possession of vast areas of our soil and keep the children of the country without homes. It is a villainous outrage that should be stamped out at once. It is an attempt to re-enact the history of Ireland in this free and powerful country.

The People's party and the People's party alone are making a fight against this great evil. Read the land plank of the Omaha platform. You will find nothing like it in the platforms of the two old frauds. Come in with us, brethren, and give the people through the People's party a chance to redress the people's wrong. This is the day of fate. We need you.

Upright Engine & Botler. upor When Writing to this Advertiser, P.

There's a question now uprising. Deep affecting every hearth, Speeding on with speed surprising-'Tis the ownership of the earth; And the sage and man of letters, Gazing on the future years,

Sees the falling of the fetters-Sees the drying up of tears. Men are learning now the folly Of the claim that man at birth

Is a trespasser, and wholly Void of claim to mother earth. Let no tyrant bind thy knowledge In a cell so cramped and small: Seek thy lore at nature's college-

This fair earth was made for all. Think ye that the God of nature, When creation had its birth. Dreamed that there would rise a creature

That would buy and sell the earth?-Who should extort from his fellow Grinding landlord's tribute high, Ere on earth the poor may pillow Aching head and drooping eye?

Pause and ponder, friend and brother; 'Tis a law of hellish birth, That one man must from another Buy a right to dwell on earth. But the mind of man is growing: Soon the writing on the wall

To the tyrant will be showing

That the earth was made for all. -Selected.

Nationalize the Telegraphs The following letter was written by Hon. James M. Brown, late Postmaster of Toledo, Ohio:

LONDON, Aug. 1, 1894. An investigation into the rapid transit of mails into foreign countries, necessarily involves the use of the telegraph, because in England, France and Germany the latter is also monopolized by the Government, and used as an auxiliary to the postal service. It may be of interest to some readers to know something of the organization and usefulness of this arm of the postal service in the largest

city of the world. The central telegraph office of England is located in the Central Royal Postoffice building in St. Martin's-Le-Grand, in the heart of the great city. The staff of this central telegraph office on the 12th of August, 1894, consisted of 3,919 persons, as follows:

Messengers .. The pay of operators ranges from \$3 to \$18.25 per week in the case of men, and from \$2.50 to \$9.50 per week in case

of women. The normal hours of duty are eight for day work and seven for night work. The women work only between 8 a. m. and 8 p, m., the night work being performed entirely by men over twenty years of age. The women are also practically exempt from Sunday work, although they are liable to be called upon in case of necessi-

Cloak and dining rooms are provided in an adjoining building, approached by covered bridges from the instrument galleries, so that the employes pass between the two as from one room to another.

Dinners are supplied by a co-operative arrangement amongst the scaff, under the management of a committee of their own body, whose duty it is to see that wholesome meals are provided at a cheap rate. This committee has a cash fund exceeding \$100,000 a year. A cup of tea and bread and butter are also provided by the Postoffice Department gratis, and served out at the instruments to those remaining on duty after 5 p. m. The cost of this is about \$15,000 a year, but the fact that the employes remain at their work, represents, it is claimed. a saving which more than counterbalances the

All employes are allowed annual holidays, varying from a fortnight to a month, according to grade and the nature of their employment.

The department maintains a school of telegraphy, which is attached to the central office, and all employed are educated there, and drafted from this school, when they have attained a fixed standard of efficiency and as vacancies arise-The La-

Modern Business Ethics Teaches

That it is wrong to take, physically, and appropriate to your own use, that which belongs to another individual; but that it is right to take intellectually, through interest, rent and profit, and appropriate to your own use the fruits of another person's toil. It also teaches that the first method of securing wealth without earning it is stealing, or robbery, and that the recipient of such wealth should be sent to the penitentiary; that the second method of securing wealth, without earning it, is business, and that the recipient if successful in making a big haul should be admitted into the best society and as a member to the leading church in the town,-in fact, that he should be toasted and feasted by all his fellow citizens as a reward for his splendid business moral (?) qualities.

Strange as it may seem to the uninitiated, so prevalent is the custom to do homage to the energetic business man and successful financier, that as a rule the people whom they rob through their sharp practices, bow down and worship them, and their methods by which they get something for nothing.

H. S. ALEY, M. D.

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EVANSVILLE, Ind., Oct. 15 .- Ex-President Harrison left here at 9 o'clock this morning on a special train over the Air line for Indianapolis. Stops were made at New Albany, Jeffersonville and other points where IGNATIUS DONNELLY. meetings had been arranged.

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Irrigated Farm Lands

FERTILE SAN LUIS VALLEY, COLORADO.

HE SAN LUIS VALLEY, COLORADO, is a stretch of level plain about as large as the State of Connecticut, lying between surrounding ranges of lofty mountains and watered by the Rio Grande River and a score or more of small tributary streams. It was the bottom of a great sea, whose deposits have made a fertile soil on an average more than ten feet deep. The mountains are covered with great deposits of snow, which melt and furnish the irrigating canals with water for the farmers' crops.

The Climate is Unrivaled.

Almost perpetual sunshine, and the elevation of about 7,000 feet dispels all malaria, nor are such pests as chinch bugs, weevil, etc., found there. FLOWING artesian wells are secured at a depth, on an average, of about 100 feet, and at a cost of about \$25.00 each. Such is the flow that they are being utilized for irrigating the yards, garden and vegetable crops. The pressure is sufficient to carry the water, which is pure, all through the farmers' dwellings.

Irrigation.

Already several thousand miles of large and small irrigating canals have been built and several hundred thousand acres of lands made available for farming operations. Irrigation is an insurance against failure of crops, because success is a question only of the proper application of water to them. The loss of a single corn or wheat crop in Nebraska, for instance, would more than equal the cost of irrigating canals to cover the entire state, so important is the CERTAINTY of a full crop return to any agricultural state. The San Luis Valley

Spring wheat oats, barley, peas, hops, beans, potatoes, vegetables and all kinds of small fruits and many of the hardler varieties of apples, pears and all kinds of cherries.

In the yield of all these products IT HAS NEVER BEEN SURPASSED BY ANY OTHER SECTION ON THE CONTINENT.

Forty Acres Enough Land.

FORTY ACRES IS ENOUGH LAND for the farmer of ordinary means and help. Besides the certainty of return, the yield, under the conditions of proper irriga-tion, will average far more than the 160-acre farms in the Mississippi and Missouri Valleys, and the outlay for machinery, farming stock, purchase money, taxes, etc., are proportionately less. There are a hundred thousand acres of such lands located in the very heart of the San Luis Valley, all within six miles of the Denver and Rio Grande Railroad, convenient markets and shipping stations, for sale at \$15.00 per acre. Most of these lands are fenced and have been under cultivation and in many instances have wells and some buildings,-everything ready to proceed at once to begin farming. A SMALL CASH PAYMENT only is required where the purchaser immediately occupies the premises, and long time at seven per cent. interest is granted for the deferred payments.

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will be made you, your family and friends. Should you settle on these lands the amount you paid for railroad fare will be credited to you on your payments; and REMEMBER the land is perfectly and THOROUGHLY IRRIGATED, and the land and PERPETUEL WATER RIGHTS are sold you for less than other sections ask for simply the water rights without the land. No BETTER LANDS EXIST ANYWHERE ON EARTH. For further particulars, prices of land, railroad fare, and all other information call on or address.

F. L. MARY,

(Mention this paper.) BROWNELL BLOOK.

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