

SUGAR FROM SORGHUM.

We have on two or three occasions drawn the attention of the agriculturists of Utah to the advantages of the Early Amber variety of sugar cane. Repeated experiments have proven its adaptability to the soil of this Territory, and its superiority over all other kinds. The United States Commissioner of Agriculture has received favorable reports concerning it from a number of States, several of which contain accounts of the process by which an excellent quality of sugar was obtained from Amber cane. From a circular letter published by the Department we extract the following account of the process adopted with success by F. L. Stewart, of Murrayville, Westmoreland County, Pa.:

1st. Heat the freshly-expressed juice in a copper lined-iron vessel to a temperature (as shown by thermometer suspended so that the mercury bulb is immersed in the juice) of 180° Fahrenheit, equal to 82° Centigrade.

2d. After the juice has been heated to 180° Fahrenheit, add and stir into it three pints of lime to each 100 gallons of juice.

3d. After adding and stirring in the cream of lime, heat the juice rapidly to the boiling point.

4th. When it begins to boil shut off the heat, or remove the vessel containing the juice from the fire, and so soon as the sediment begins to settle, draw off with a siphon the clear liquid from the top until at least nine-tenths of the whole quantity of juice has been thus removed, leaving a thick muddy sediment at the bottom.

5th. Sweep out with a broom this muddy sediment into a bag-filter, and add the filtrate as it passes through the filter to the clear liquid siphoned off.

6th. To the clear liquid thus obtained in sections 4 and 5, and which should be allowed to cool to a temperature of 150° Fahrenheit (equal to 66° Centigrade) and not lower, there is now added of solution B one fluid ounce to each gallon of juice, or 5 to 7 pints to each 100 gallons of juice. At least enough of solution B is to be added to completely neutralize the lime in the juice; and to determine this point, a slip of blue litmus paper is dipped into the solution, when, if enough of solution B has been added, the blue color will be changed to red.

7th. Evaporate rapidly, skimming from time to time any scum which appears upon the surface, and adding solution B in small quantities if the boiling juice will not turn the blue litmus paper red.

8th. When the thermometer in the boiling juice indicates a temperature of 235° Fahrenheit (equal to 113° Centigrade), the syrup should be withdrawn from the fire, and it should be kept to crystallize in a room of about 82° Fahrenheit (equal to 28° Centigrade). To facilitate crystallization, a few grains of granulated sugar may be added to the cooling syrup which has been cooled to a temperature of 100° Fahrenheit (equal to 38° Centigrade).

The solution alluded to above as "B" is a discovery made by Mr. Stewart for the speedy separation and crystallization of the sugar, which does away with the expensive and elaborate processes used in the extraction of sugar from the cane. This gentleman has been very successful also in manufacturing sugar from corn stalks. Sorghum sugar has been granulated from various kinds of cane, but the circular gives the preference to the Early Amber, the juice of which granulates without the aid of chemicals, but Mr. Stewart claims that the juice of any kind of sorghum or maize may be readily granulated and much more sugar obtained by his process. He offers to furnish the following to those who desire to experiment on this method of sugar making:

Sheet-drawings of boiling pan, heating tanks, crystallizing vessels, etc., under No. 1, and No. 2, built at very small cost. Mailed for 50 cents.

"Solution B," put up in iron-bound cases, holding about 50 gallons each, shipped by railroad from Chicago or Pittsburg. Price (freight included), 50 cents per gallon. Cheap freight rates secured when sent in large cases. Chemical test paper, indispensable for this use. Twenty-five cents per pound, by mail, prepaid.

The red paper must be used in the boiler, the blue in the defecating tank.

Heat the fresh juice to 180 degrees F.; stir into 100 gallons of it 3 pints of milk of lime; stir well; test with a slip of the red paper and dip into it. If enough lime has been added, the color of the paper should instantly be changed to a deep blue. If the paper still remains red or purple, add a little more milk of lime until a dark blue color is produced. (Observe directions on page 101 of hand-book, except that only one-half the lime there recommended is to be used at first.)

After "solution B" has been added in the lower tank, test the juice with the blue paper. If it changes the paper to a bright red it is enough; if not, more solution B must be added to the juice before running it into the evaporator.

To accommodate those who wish to test the process in a preliminary "solution B," in 5 or 10 gallon cases, we will ship the crystallizing at 50 cents a gallon, charging 75 cents extra for the case. It will be put up in packages of one gallon each, and shipped by express, for cash.

Orders can also be addressed "A. J. Russell, Manager, Crystal Lake Creamery, Ill."

The following is a summary of the experience of C. E. Davidson, Secretary of a Michigan Agricultural Society, while manufacturing in Nebraska, and we append it as likely to be of service to our sorghum growers here:

First, I satisfied myself that the sooner the cane is made up after it is ripe and cut, the better the quality of the syrup and the larger the percentage of sugar that will granulate.

Second, That no cold juices should be added to the points after it comes to a boil. Large dry pans or evaporators are the best. The continuous stream process lessens the chances of a granulating process. In all granulating pans, the running of cold juice into hot at any stage of the reduction causes loss of the albuminous and waxy elements, so that it requires a filtering process to extract them. Third, I found that the more the cane-stalk was shortened at both ends, the better the quality of the syrup. The butt joints are barren, and give the syrup a bad

basic, and top joints are worthless.

Fourth, From experiments on a small scale, I think the best results can be obtained by steaming the cane and expressing the juice by screw pressure. The juice is then limped and free from the waxy impurities that so much hinder granulation; also, the fine particles of cane that are ground out in crushing in a mill.

Peter Collier, Esq., Chemist of the Department, gives a tabulated account of fifteen experiments, from which we extract a few points which will give our farmers some idea of the results:

Experiment No. 10, with sorghum syrup, yielded 24.6 per cent. of sugar, polarizing 94°; 65.4 per cent. of syrup, polarizing 43°.

Experiment No. 2, with maize syrup, yielded 32 per cent. of sugar, polarizing 80°; 68 per cent. of syrup, polarizing 36°.

Experiment No. 6, with sorghum syrup, yielded 31.3 per cent. of sugar, polarizing 94°; 68.7 per cent. of syrup, polarizing 38°.

The sorghum was a variety known as the Minnesota Early Amber. Both corn and sorghum were in the stage of vigorous growth when cut, the leaves being green.

The points which these experiments have fully settled is, that there exists no difficulty in making from either corn or sorghum a first-rate quality of sugar, which will compare favorably with the best product from sugar-cane grown in the most favorable localities.

We trust that some of our enterprising farmers who have an eye to something besides wheat, corn and hay, will give this matter their earnest attention, and that ere long Utah may enter the list of the sugar-producing regions of the United States.

MEETING IN ARIZONA.

In the *Expositor* of October 24th, we find the following notice of a meeting called by one of our missionaries:

"MORMONISM."

I will deliver a discourse on the above subject at the Court House in Phoenix, at 10 a.m., Sunday, the 26th inst. All are cordially invited. D. W. JONES.

The *Expositor* kindly adds: "We recommend the above to all who desire information on the subject of Mormonism."

That paper seems to be disposed to treat people of all classes, creeds and parties with fairness and courtesy. It is so rare that non-"Mormon" journals manifest an absence of prejudice against our people and faith that we take pleasure in noting the course of the *Expositor*, which is an able paper and is published by James Reilly at Phoenix, Arizona.

BY TELEGRAPH.

EASTERN.

SUDDEN DEATH.

Senator Zach. Chandler Found Dead in His Bed.

CHICAGO, 1.—Senator Zachariah Chandler, of Michigan, was found dead in his bed at the Grand Pacific Hotel, this morning. He had been speaking in Wisconsin, and last night addressed an immense audience at the Corn Law Hall, in this city, and spoke with his usual earnestness. After the meeting, when he and Senator Logan and Hon. Jesse Spaulding were sitting in his room engaged in conversation, Senator Chandler complained of indigestion. As he had complained of the same distressing feeling while en route to the city with these gentlemen, Mr. Spaulding suggested that he remain over in the city until Saturday night, but he said business affairs required his attention at home, and the order was given to have him on the train in the morning at seven o'clock. His friends then bade him good night and left. That is the last time the Senator was seen alive. This morning, when the office boy called him, there was no response. As, upon repetition, silence prevailed, the clerk effected an entrance through the transom and found that the Senator was dead. The body was not quite warm, and a physician who was present decided that death occurred about three hours previous to the discovery. The face looked tranquil, showing that death was painless. The coroner will hold an inquest.

Jno. B. Drake telegraphed President Hayes the sad intelligence, about 5 o'clock.

Dr. McVicker, who was immediately called, is of opinion from partial examination, that death was the result of sudden congestion of the lungs, brought about by cold, which was contracted at Janesville. The inquest will be held during the afternoon. Sorrow over the sad event is universal and genuine. Flags are at half mast upon the White House and public buildings. The Tribune building is also in mourning. The republican county central committee and Federal officials, together with a portion of the Commercial Union Club, and the head of the County Militia organizations held informal consultations at the Grand Pacific Hotel, to tender expressions of appropriate committee whenever the relatives of the deceased Senator shall arrive from Michigan. The latter will probably be here during the afternoon by special train, and final arrangements cannot be made until their arrival. The funeral will be pronounced by those who are familiar with the Senator's campaigns as by far the most vigorous and able of all his previous efforts.

FOREIGN.

GREAT BRITAIN.

Foreign Notes.

LONDON, 1.—Admiral Hornby's squadron will probably winter in Beika Bay.

One hundred thousand pounds of tin ore were shipped to New York to-day.

A Paris correspondent reports that proceedings will probably be taken against the Bishop of Angiers for denouncing republican institutions.

Prince Jerome Napoleon has returned to Paris. Don Carlos returns in a few weeks, and will doubtless profit from the government's warning.

The American lady and gentleman attacked and robbed in a railway carriage on the Alta Italia line a few days ago, were Mr. and Mrs. Bacon, not Baron.

The robbery occurred between Alia and Fernon. One of the two robbers has been arrested.

Elliott and Boyd have made the first deposit of 250 for their book race. Elliott still leaves 250 on deposit for a match with Hamilton as he has not yet received the proceeds of his book race.

Hamilton's forfeit of the championship, Elliott claims he ought to receive information direct from Hamilton as to whether he intends to proceed.

During the next few days as plenty of time has been allowed.

The first regular day of May and November, being the days on

under the pension arrangement, an act of the last Congress, the surplus revenue for the quarter ending with the date above stated was less than \$5,000 against nearly \$10,000,000 for the corresponding quarter of 1878. The bulk of arrears of pensions having been paid, the drain upon the Treasury from this cause has ceased, and it is expected that monthly statements for the line making the remaining with October will show a fair surplus. The increase in customs receipts and the large reduction made, by the Treasury, in the interest charge, induce the Treasury officers to believe that the surplus revenue for the current fiscal year will reach at least \$25,000,000, which would be an average for the month of October will largely exceed this estimated average.

Central Pacific Pay Up.

It has been ascertained by the auditor of the Pacific Railroad accounts that the Central Pacific Railroad Company under the Thurman Act, is required to pay into the sinking fund, the year ending December 31, 79, about \$1,000,000. The same officer estimates that the Central Co., for the current calendar year, will have to pay into the sinking fund about \$800,000. These amounts are exclusive of the sum due the company for services rendered.

The law requires that the money ascertained to be due the sinking fund for each calendar year shall be paid into the Treasury on the first day of February following. A recent decision of the United States Supreme Court puts a stop to all efforts on the part of the Pacific Railroad Company to resist the payment required by the Thurman Act, and the Central Pacific Company, therefore, will be called upon to make a speedy settlement for the year 1878, and to over promptly, the amount due for the current year. No dividend can be declared by the Company until the requirements of the law are complied with.

The Union Pacific Company, in consequence of the large amount of business transacted for the government during the current year will not be called upon to pay any cash to the sinking fund.

STERN WARNING.

NEW YORK, 1.

The new rule adopted by the police board yesterday, that neither club nor baton shall be taken in the hand of an officer except in case of need, is a stern warning to the force, which it will be wisdom to heed.

The Obelisk.

The seizure of the obelisk in Egypt is generally ridiculed and there is no thought of making it a national question except by the World.

The Sun says: The trouble about the Egyptian obelisk is that it is a baby isn't worth transporting five miles, much less 5,000. The transportation contractors may make a handsome thing out of it perhaps, but the public will not see it when they see it. This other obelisk, in London, is a wretched old hump.

Overdue.

Fifteen steamships from European ports are overdue, doubtless owing to the prevailing northwest winds.

Territorial Pioneers.

A meeting of the Society of Territorial Pioneers of California is called for Monday next on the death of Hooker, who was a member.

Counterfeiters Escaped.

Seven counterfeiters were sentenced to the State Prison for passing dollars and notes. All were to be taken to Albany penitentiary to-day, when the deputy marshal went to receive his prisoners he found five had escaped.

Grant's Reception in Omaha.

OMAHA, 1.—The city is full of visitors from all parts of Nebraska and Iowa to participate in the reception to General Grant this afternoon. The day will be observed as a general holiday, all the banks, stores and business houses will be closed during the afternoon, public and private buildings will be elaborately decorated with flags, bunting, and banners. Every detail has been admirably arranged to make the ovation a grand success in every respect. A special union Pacific train will arrive at 2 p.m. The arrival will be announced by an artillery salute.

An Embroiderer in Limbo.

Boston, 1.—David Smith, who was recently arrested in Denver, Col., for embezzlement of about \$12,000 worth of liquors from the firm of J. W. Gaff & Co., of Cincinnati, of which he was agent, and who was subsequently detained in Providence, R. I., in a jail, came to this city to-day and gave himself up. He was sent to jail in default of bail.

Quarantine in Abolition.

GALVESTON, 1.—The board of health has abolished all quarantine restrictions hitherto enforced at this port.

An Officer Missing.

A special from Denison says: Last night Policeman Johnson went to the residence of a negro, Frank Fortin, to arrest him for stealing. The latter resisted, killing Johnson and escaping.

Merry Memphis.

MEMPHIS, 1.—No new cases have been reported since Thursday. Last night was the coldest of the season. The thermometer at 7 o'clock this morning had fallen to 37. The *Appeal* and *Advertiser* will both resume publication full size to-morrow. Merchants report a rush of business, and physicians all agree that the cold wind of last night swept away all lingering germs of the fever.

30 DAYS FOR CASH.

BETTER AND PURER LIQUORS.

WINES AND CIGARS.

Than can be found at any other House in Utah.

AT COST.

We advise you to call and see

N. BOUKOFSKY,

20 and 21 First Street.

THE ADVANCED PRICE PAID FOR ALL KINDS OF DRIED FRUITS.

AT

TEASDEL'S

207 and 209 1/2

Wagon call at their rates, or by mail, or by express, or by freight.

G. P. TEASDEL.

which the Bank of England makes up its balance they are observed as holders in the bank and the stock exchange. Consequently no business is doing at either place to-day.

The following members of the cabinet will attend the banquet of the Lord Mayor: Lords Beaconsfield, Cairns, Salisbury and Mansfield, Viscount Salisbury, Sir Stafford Northcote, R. Asheton Cross, Frederick A. Stanley, Sir Michael Hicks Beach, Wm. H. Smith, Viscount Sandon and Duke of North Devon.

King George of Athens, in a speech at the opening of the Greek Chamber of Deputies, said: Negotiations were progressing between Greece and Turkey, aided by the co-operation of Europe, and were expected to terminate favorably. A peaceful solution, he said, would be advantageous to both countries, but it was necessary in order to maintain the army in an effective condition to continue military preparations because strength greatly regulated the relations between nations. Bills will be presented concerning the army and navy.

Sir Stafford Northcote, Chancellor of the Exchequer, in answering a letter calling his attention to the popular distress in the southwest of Ireland, and suggested immediate action by government in providing work for the people. Sirs sympathized with the people but can only refer them to the Irish Executive. He adds the direct interposition by government would be open to great abuse.

A Rome dispatch says: After a long trial, Cardinal A. J. his Mistress Raffallo Saracini, widow of Capt. Faddo, have been found guilty of adultery. Cardinal was convicted of the murder of Faddo and sentenced to death. The woman was convicted of complicity and sentenced to hard labor for life.

NOVA SCOTIA.

The Violence of the Storm.

St. JOHN, N. B., 1.—Further particulars of Wednesday's storm are at hand showing the damage was greater than at first reported. In addition to the losses before mentioned many wharves are destroyed, barns and outbuildings blown down, bridges washed away and vessels wrecked.

Halifax.—Reports of distress by the storm continue to reach here. It is computed that 70 vessels are ashore in the Straits of Chignecto. Marine insurance officers here will suffer to the extent of \$500,000.

ESTRAY NOTICE.

I HAVE in my possession:

One dark bay or brown STALLION, two or three years old, no brands visible. If not claimed within ten days from date will be sold at the stray pound, East Porterville, Morgan Co., Nov. 7, 1879, at 2 p.m.

L. W. PORTER, Posterville, Morgan Co., Oct. 29, 1879.

ESTRAY NOTICE.

I HAVE in my possession the following described animal, which if not claimed within 10 days will be sold at the law. Nov. 7, at 10 a.m.

One sorrel HORSE, about 12 years old, branded X on left hind leg, and on left shoulder.

GEORGE T. CUTMAN, District Poundkeeper, St. George, October 28th, 1879. ds

ESTRAY NOTICE.

I HAVE in my possession the following described animal:

One red and white cow, about six years old, stub horns, white spot in face and some white on legs and hind quarters. Left hind right ear, flag-like brand on left hip.

One red COW, about three years old, broad face, branded on right hip, crop off right and small work in left ear. One red COW, about seven years old, unbranded, in left ear, left horn drops a little. The hind legs are marked with a Y. Young calf with her.

The above described animals are not claimed, and taken away they will be sold to the highest bidder for cash on Tuesday, Nov. 12, at 10 o'clock a.m. at the stray pound in this city.

JOS. R. JOHNSON, District Poundkeeper, Salt Lake City, Nov. 1st, 1879.

To Country and Other Buyers.

FULL line Samples of Books & Shoes from Porter, Oppenheimer & Steininger 117 Battery St., San Francisco. Same prices as in the largest stores. Tanners, Santa Cruz.

STOVES DIRECT FROM THE WORKS.

Agent for Maclean & Retterer, Chicago.

The Largest and most Varied Stock of STOVES west of New York.

Parties wanting a stove either for public or private use, can have one or more sent direct at the Wholesale Price.

Buyers can see all the above firm's new designs at my office.

JOHN B. GOODHIND, Agent, Salt Lake City, Nov. 1st, 1879.

SPENCERIAN

STEEL PENS

of the Very Best Quality, and warranted for Purity, Durability, and Economy of Use.

REAL SWAN QUILL ACTION.

In Twenty Numbers. Samples, including the popular numbers 1-2-5-8-15 and 3-16-18, will be sent by mail, for 25 Cents.

W. L. BLOOMER, Taylor & Co., 188 & 140 Grand St., New York.

TAKE NOTICE!

I will call for

30 DAYS FOR CASH,

BETTER AND PURER LIQUORS,

WINES AND CIGARS

Than can be found at any other House in Utah.

AT COST!

We advise you to call and see

N. BOUKOFSKY,

20 and 21 First Street.

FIRST PRIZES!

Territorial Fair,

Z. C. M. I.

SHOE FACTORY

Was Awarded the FIRST PRIZE FOR GENTS FINE BOOTS, AND THE FIRST PRIZE For the best assortment of FINE BOOTS and SHOES And the FIRST PRIZE For the best assortment of "Common Sense" Boots & Shoes

Were also awarded to Z. C. M. I. TANNERY, For Harness, Leather, Fair Leather, Upper Leather, Calf Skin, Kip Skin, etc.

See that the SHOE and SHOE FACTORY are SHOWN in the Warehouse of Manufacture by Z. C. M. I. SHOE FACTORY. H. S. ELDREDGE, Supt.

Established May, 1876.

FASHION.

Punctuality Economy

WANTED!

FIRST CLASS TAILOR, CONSTANT EMPLOYMENT. Apply Personally or by Letter to

BUCKLE & SON, TAILORS AND WOOLLEN DRAPERS, MAIN STREET, Opposite Walker House, P.O. BOX 685

CONFERENCE visitors can find a Full Stock of Fine Liquors, Cigars, Wines, Etc., Etc., at WALKER BROS. & CO., Opposite Post Office.

THE Largest and Best Stock of WHISKIES ever held in Utah is there For Sale at Bottom Figures. Call and See Them.

TRADE SALE.

SALT LAKE CITY, OCT. 27, 1879.

TO THE MERCHANTS & DEALERS

YOU are respectfully solicited to attend the Assignee Sale of the Large and Well Selected Stock carried by the late firm of SIEGEL BROS. Sale to take place Tuesday, November 4, 1879, at 10.30 a. m., at 88 Main Street, Salt Lake City, when will be sold at Public Auction to the highest bidder for cash or negotiable paper:

400 Cassimere and Worsted Suits of fine, medium and common grades.

1,000 Pairs of Cassimere and Satinet Pants.

Overcoats and Rubber Coats.

50 Doz. Duck Overalls and Jumpers.

50 Doz. White Shirts for Men and Boys.

40 Doz. Cheviot and Percal Shirts.

50 Doz. Cassimere and Blue Flannel Overshirts.

50 Doz. Men's Plain and Fancy Hose.

100 Doz. Men's Plain and Fancy Searrs and Neckties.

75 Doz. Men's Merino and Cotton Undershirts and Drawers.

60 Doz. Men's Fine and Medium Quality Hats.

25 Doz. Men's Fine and Heavy Boots.

Also a full stock of Collars, Cuffs, Handkerchiefs, Gloves, Jewelry, etc.

This is the Best Opportunity ever offered TO MERCHANTS in Utah for bargains in this line of goods, as the entire stock must positively be closed out on the above date. Sale positive and without reserve.

L. GOLDSMITH, Assignee.

GUS HEYMAN, Auctioneer.

P. S.—Stock will be ready for inspection the day previous to sale.

G. P. TEASDEL.

FIRST PRIZES!

At the late

Territorial Fair,