

fires to celebrate the release of O'Brien.

Lords Ripon and Morley were escorted from the station to their hotels tonight by a torchlight procession, in which fifty trades were represented.

Father McKenna, a priest of Kildyari, has been summoned for the denunciation of the resident magistrate of Ennis (before whom Mr. Cox was tried) as a dog, scoundrel, blackguard and traitor.

LONDON, Feb. 1.—John Morley and Marquis Ripon went to Dublin today; they received ovations at different stations at which their train stopped.

The committee having in charge the proposed demonstration in honor of O'Brien and Sullivan, has been boycotted by all the owners of large halls in London.

BOSTON, Feb. 1.—Earthquake shocks were felt at many points in Maine, New Hampshire and Vermont at 11 o'clock this morning. No damage has been reported, but the shock was severe enough to rattle windows, etc.

LITTLETON, N. H., Feb. 1.—A severe shock of earthquake was felt here at 11 o'clock today. Some people were so alarmed that they fled from their houses. No damage was done.

BERLIN, Feb. 1.—The tone of the government organs on the anti-Socialist bill indicates a complete surrender by the government and willingness to accept a two years' prolongation of the operative period of the present law and to abandon the offensive amendment.

The Crown Prince went on a long excursion today to Oospalatte. He was accompanied by the Crown Princess, Duke of Hesse, Princess of Saxe-Meinungen and Dr. Mackenzie.

The *Sachristen* referring to the report that Lord Randolph Churchill desired to visit Prince Bismarck, while in Germany, but received through Herbert Bismarck an intimation that the Chancellor was so fully occupied with public business that he could not receive him, says that those in a position to know the facts, state that if Lord Randolph had intimated a desire to see Prince Bismarck, the latter would have been ready to receive him, even though the visit might not have been convenient on account of ill health or press of business.

CHARLESTON, Feb. 1.—Fire at the Union wharf this afternoon destroyed 1,200 bales of cotton belonging to the Union Cotton Press, and destroyed or damaged 800 bales belonging to other parties. Loss, \$100,000, fully insured.

SAN FRANCISCO, Feb. 1.—The Merced Canal that has been built to convey water from the foothills of the Sierra Mountains to San Joaquin Valley, was formally opened today. The reservoir in which the water is stored, contains 640 acres. The canal is 27 miles long and has been five years building. It will irrigate over a quarter of a million acres.

GALVESTON, Feb. 1.—Cyrus S. Oberly, for several years past staff correspondent of the *News*, died suddenly this morning at Houston. He was the younger brother of Civil Service Commissioner Oberly.

NEW YORK, Feb. 1.—Hon. G. W. Schuyler, a descendant of Gen. Philip Schuyler and a well-known politician, died at Hoboken today, aged 78. He was a trustee of Cornell University.

Geo. I. Finkle, leader in the famous anti-rent war in Hudson and Monaw's Valley in 1844-45, died today, aged 80.

LISSON, Feb. 1.—Sinhon Souza Rosa, Portuguese minister to China, has been appointed minister at Washington to succeed Señor Nogueiras, who recently died.

BRUNOS AYRES, via Galveston, Feb. 1.—Negotiations for the Santa Fe loan are progressing favorably. The amount of the loan is \$1,000,000.

CINCINNATI, Feb. 1.—The remains of General John Finell of Covington, Kentucky, who died at Helena, Montana, were interred here today.

VIENNA, Feb. 1.—Herr Krapp, the gun maker, had a private audience with the Emperor today. It is supposed the Emperor gave him large orders for artillery.

CHARLESTON, W. Va., Feb. 1.—Gov. Wilson today issued requisitions on Gov. Buckner, of Kentucky, for Tom Chambers, Andy Vadney, Selkirk McCoy, L. D. McCoy, Moses Christian, David Mahone, D. D. Mahone and Plant Mahone, citizens of Logan County, alleged to have been engaged in the recent border feud.

TORONTO, Feb. 1.—Summonses have been served upon ex-Mayor Manning, president of the Traders' Bank; H. S. Straby, manager of the Traders' Bank; R. Snelling, the bank's solicitor, and Elias Rogers, a coal merchant, to answer to the charge of compounding felony in being parties to the destruction of forged promissory notes.

LONDON, Feb. 1.—The trial of Thos. Collon, formerly of Lowell, Mass., and Michael Hopkins, of Philadelphia, alleged dynamiters, was begun today at Newgate.

LONDON, Feb. 1.—A dispatch from Batoum, says the cashier of the Trans-Caucasian railway has been murdered by two nihilists disguised as guards. The murderers decamped with 12,000 roubles. One of them has since been captured.

VICKSBURG, Miss., Feb. 1.—E. Short, railroad agent at Kooxville station, was assassinated today. The assassin fired through his window. Short's daughter and wife were in the room with him. His wife was shot in the back.

ADEN, Feb. 1.—The Somalis have murdered an English officer and 23 natives of Berbera.

SAN FRANCISCO, Feb. 2.—The steamship *Belgie* arrived from Hong Kong

and Yokohama this morning with four cases of smallpox aboard and was placed in quarantine. This is the fourth successive steamer from China which has arrived with smallpox aboard. The *City of New York*, which arrived last week, is still in quarantine.

SAN REMO, Feb. 2.—Prof. Virchow has examined a fragment taken from the very center of the trouble in the crown prince's throat and declares it shows no evidence of cancer.

ST. AUGUSTINE, Florida, Feb. 2.—Miss Terry, sister of Gen. Terry, says: "My brother is not, nor has he been sick enough to cause any serious apprehension. He is so much improved of late that the state of his health occasions us no concern." Many men invariably express surprise upon seeing General Terry that his health should ever have been made the subject of newspaper comment, for his appearance is that of a perfectly well man.

LONDON, Feb. 2.—Five fashionably dressed men were arraigned in the Marleybone police court today and charged with attempting to obtain 30,000 pounds from the Bank of England upon forged or stolen bonds of the Hamilton & Northwestern Railway of Canada. There was one other man in the gang whom the police failed to secure. They also failed to capture the bonds. One of the prisoners has posed as Lord Fairfax and had lived in style at the Grand Hotel in Paris. All five were remanded.

DUBLIN, Feb. 2.—The tenantry on the estate of the Countess of Kingston have expressed themselves satisfied with the terms offered by the landlord who agrees to allow twenty per cent reduction in rents, to pay all costs and to reinstate the tenants who have been evicted.

ATLANTA, Feb. 2.—Governor Gordon today commuted the sentence of Eliza Randall, who was to have been hanged in Clay County on Friday, to imprisonment for life. She killed her father with an axe. Public sentiment against the infliction of capital punishment was what saved her from the gallows.

PITTSBURG, Feb. 2.—Sporting men have discovered in Jack Fogarty a man whom they will back against Jack Dempsey, with or without gloves—the latter preferred.

LANSING, Feb. 2.—The Palms will case was reversed by the supreme court. The two children get the income of the estate, amounting to \$200,000 per annum; the grandchildren get the estate.

DUBLIN, Feb. 2.—The freedom of the city was conferred on the Marquis of Rion and John Morley.

WASHINGTON, Feb. 2.—Denis Kearney talked to the House committee on foreign affairs this morning in support of the Cummins bill prohibiting Chinese immigration.

ST. LOUIS, Feb. 2.—In the preliminary examination of L. W. Brock and Tim Burrows, at Texarkana, Brock made a confession of the train robbery at Genoa on December 9. He said Jim and Rube Burrows caused the engineer to bring the train to a stop and under instructions of Rube Burrows, leader of the gang, he entered the express car, there met three men whom he intimidated with a six shooter, and handing a bag to one, two of them compelled him to put the money and contents of the safe in the bag. He put \$2,600 in money and \$6,000 in other valuables, in the bag. The three then started on foot for Texarkana, and on the way divided the booty, his share being about \$800. The fireman, J. J. Craven, recognized Burrows as the robber whose mask slipped off as he entered the engine cab. Both men were bound over in \$7,500 bail. Burrows waived examination.

LONDON, Feb. 2.—A prize fight for the featherweight championship under Marquis of Queensberry rules has been fought at Newmarket between Monk, of Birmingham, and Donovan, of Bermondsey. Donovan, who had 14 pounds the advantage in weight had the best of the fight from the beginning. After sixty-three rounds Monk was unable to come to time. He was badly punished and received an injury to one of his legs. The fight lasted 3 hours and 25 minutes.

LONDON, Feb. 2.—A sharp shock of earthquake was felt in Scotland. No damage.

The shocks were also felt in different parts of England. Reports from Birmingham, Coventry and Edgbaston, a suburb of Birmingham, show that disturbances occurred in those places. In Scotland the shocks were especially marked at Dinwall, County Ross, and at Inverness.

CAIRO, Feb. 2.—The overland mail route through Egypt has been abandoned. The Prindix steamers will hereafter pass through the Suez Canal.

LONDON, Feb. 2.—Dispatches from William O'Brien, who is now on the continent, show that he is greatly improved in health and will be present in the House of Commons on the re-assembling of Parliament.

PORTLAND, Maine, Feb. 2.—General Neal Dow, in an interview with a New York *World* correspondent, talked of the third party and its influence on the coming campaign. General Dow said he thought the republican party everywhere was as thoroughly committed to the liquor interest as the democratic. He thought Cleveland's message has given the republicans a chance for success, for it affords them an opportunity to argue that protection of home industry will be really the issue in the presidential campaign, and in that way they will mislead a great many temperance men. He thought the

PROHIBITION VOTE

would be greatly increased at the next presidential election, and that the third party would poll fifty thousand votes in New York. The republicans could not carry that state. The prohibitionists would concentrate their efforts on New York and do some work in Ohio. General Flak, of New Jersey, would be the standard bearer. Asked as to his opinion of Mr. Blaine, General Dow replied: "Mr. Blaine is personally a temperance man and prohibitionist. I voted for him in 1884, thinking that if he would be elected the republican party would recover the confidence and respect of the country. I shall not vote for him in the coming election. It is no longer a question of candidates, for the reason that prohibition cannot win in the lifetime of the republican party."

OTTAWA, Feb. 2.—Admiral Henage, who assumed command of the British fleet in the Pacific, has in his report to the British government drawn attention to the inefficiency and weakness of the squadron on the Pacific Coast. As a result, it is reported here that the imperial government have decided to add several vessels to the admiral's command. His orders for the coming season include a sharp lookout to see that the rights of British sealing vessels in Behring's Sea are not interfered with in the future. When here the admiral said that if he had been in command of the station when several Canadian schooners were seized by the United States cutter *Corinth*, last year, he would have given the Yankee cruiser a sample of what British justice was. The admiral is said to be a hot-headed old sailor and it would surprise no one here to learn that he had got Great Britain into some sort of squabble before the summer is over.

A COMPREHENSIVE ARTICLE

On the Subject of Sugar Making.

SALT LAKE CITY,

January 28, 1888.

Editor *Deseret News*:

I notice in your last evening's issue an extract from a letter from Brother Jacob F. Gates, now on a mission to the Sandwich Islands in which he writes on the sugar question as follows:

"Knowing the greater facilities we have here on the island of cheap labor, a continuous season suitable for cultivation and manufacture and the greater tonnage per acre on account of the superior quality of land and kind of cane, and knowing how barely possible it has been with all these advantages, with the best of modern machinery, for many of the plantations here to keep their heads above water during the past depression in the price of sugar, I can hardly believe, after this that his estimates were correct. Perhaps there is money in the manufacture of sugar from the amber cane; but I have been led to doubt it for several reasons:

"First—Cane soon impoverishes the land so that after a very few crops the yield on the best of soil is very small. This is my experience and observation on our land in the southern part of Utah.

"Second—All cane grown in Utah matures but a few weeks at most before frost, and must be worked up within that time or it will get frosted and sour. It might be suggested that machinery could be put up that would work up the entire crop within this time; but a little computation will soon prove to anyone that machinery required for such a purpose would cost vastly too much to justify it lying idle ten months or more during the year."

Brother Gates thinks the estimate for making sugar here at five cents per pound cannot be correct because on the islands they can hardly keep their heads above water with what he claims the greater facilities they have there. I have long ago looked into this matter and obtained information from persons who have managed plantations there, and can therefore answer his objections. With regard to "cheap labor" the islands have no advantage. It is true they pay only one-third the price, but a white man here will do three times as much work as a native will do there.

"Continuous season suitable for cultivation" It is true the islands have a continuous season, and the cane crop takes advantage of it and "grows on for ever," thus causing a continuous cultivation of from eighteen to twenty months for a crop,

or from July to the second January, under circumstances where the grass and weeds grow 365 days to the year; that means from 550 to 600 days cultivation for a crop, which is from 25 to 45 days more than sorghum requires for a crop of sorghum can be raised and worked up into sugar in 120 days.

Greater tonnage per acre. Not while the island cane yields 25 to 30 tons per acre requiring cultivation for say 600 days, sorghum will yield two crops of 12 to 15 tons each, requiring 225 to 250 days' cultivation, and as the cost of a day's work, as shown above, is about the same, the same tonnage of sorghum can be raised for 5 1/2, or say one-half the amount that island cane can, and as the sorghum gives to the ton from 100 to 115 lbs of good sugar, not needing refining, and island cane from 130 to 140, that does need refining, the advantage is decidedly in favor of the sorghum. Right here let me point out a very great economic advantage which the sorghum has over the island cane, and that is in the seed produced. The island cane has no seed (and is therefore propagated from cuttings) whereas the seed raised on an acre of sorghum will pay the whole expense of raising the crop up to the point of cutting and hauling to the mill. This is an important financial factor which neither the island cane nor the sugar beet possesses. Thus, when we make our own sugar here from sorghum, we also make our own beets (for which we now pay out between three and four hundred thousand dollars per annum) and were we to make our sugar here from either island cane (which is impossible) or sugar beet we must either raise grain for hog feed on other lands and at other expense, or still continue to pay out the large sum of money before mentioned. Thus while the island planters can hardly keep their heads above water it is not difficult to see how "the sorghum planter can reap a tolerably handsome profit."

With regard to the planters in the islands having "the best of modern machinery," they have no doubt the best of modern machinery of the ancient kind. While explaining to Brother Gates the cause of the "depression in price of sugar," which he mentions in his letter, I will also show him that the really modern kind of machinery differs very materially from that which he now calls the best. The principle of diffusion which has been for several years used in Europe for the manufacture of the best sugar has worked a revolution in the kind of machinery used. The old ponderous and very expensive crushing mill and hydraulic press machinery are set aside and the simple machinery now used for diffusion has taken its place. By this process 93 per cent of the saccharine properties of the sugar producing plant is easily and readily obtained, whereas by the most modern crushing or pressing machinery only from 47 to 55 per cent of the saccharine can be obtained. This wonderful advantage secured several years ago by the scientists of France, Germany and Russia, and the bounty of one and a half cents per pound paid by the two latter countries, gave the sugar production in those countries such an impetus that they have not only doubled their per capita consumption at home, but they have exported vast quantities, and in order to obtain the bounty, shipped their sugar to the purchasing markets in advance of the demand and have thus clogged the avenues of trade and of course brought about a depression in price. The success of this principle of diffusion in extracting the saccharine from sorghum, now clearly demonstrated through the government experiments, enables me to come to the front with the business I have been wrestling with for several years in Utah, and declare it and show it to be now profitable to make our own sugar, as I have before, by the tons I have made, shown it to be practicable.

With regard to the first of Brother Gates' reasons, namely, the exhaustion of the soil, I don't care to present much argument on this point, although I find some practical farmers who, like myself, have made a business of raising cane, who say that cane is not as hard on land as corn is, yet to cover the exhaustion of the soil I have provided in my plan of a plantation two remedies; one is to return the chemical constituents drawn by the plant, which constituents science teaches and experience corroborates, and the other remedy is to have sufficient of land to summer fallow half and use half each year, and it will not be disputed by practical farmers that this latter remedy, aided by judiciously applied fertilizers, will effectually enable a con-

tinuous planting, and increase instead of diminish the richness of the soil. Utah is plentifully supplied with a variety of fertilizers, bone dust, guano, gypsum and phosphates, the latter two in unlimited quantities, the former two only limited by the energy employed in gathering them.

With regard to the second reason, "the short season for working." It is true the season here is short compared with that of tropical climates, but though short there is a season of some four to eight weeks, according to location, before frost sets in, and during those weeks perhaps tropical evaporation might despair, but northern energy grasps the situation, rolls up its sleeves, works continuously night and day, and produces wonderful results, while the man raised under circumstances which do not render his energy necessary looks helplessly on, simply wondering at the extent of the work accomplished.

My plan is to secure machinery of capacity sufficient for the crop, run night and day, taking every advantage of time and season and by so doing a crop of 10,000 tons can be worked up into 10,000 bags of sugar in five weeks. And I would rather be hurried by the frosts to make a wind up of any season's work than have to contend with the swarms of rats which in the islands infest the fields, especially during the second crop, for they nest in the debris of weeds and leaves and live on the cane, not economically eating up one stalk at a time, but knowing into a stalk a little way and leaving the wound to sour the whole juice in it, while they attack another, and thus destroy a very large proportion of the crop, for a quantity of sour juice will neutralize the crystallizing properties of its own weight of good juice.

With regard to the idea of the machinery lying idle ten months of the year. This is not a very unusual thing. The buildings of the bathing resorts do that, the farmer's mower, reaper, thrasher, plow, in fact all the tools of a farmer have a ten or twelve months' rest, and nearly all other machinery does pretty much the same; why there is very little machinery that runs more than one-third of the actual time or about four months in the year, and if sugar machinery runs day and night for eight weeks, which would probably be the extreme length of our season, we would get nearly half as much service out of it as other machinery gives, so that it is only like lying idle a little more than half of the time. For instance, take a planing mill, if it run nine and a half hours a day for 300 days, they make 2,850 hours; if we run eight weeks we would run 1,344 hours, thus lacking only a very little of one-half. And if the machinery can earn as much money in 1,344 hours as other machinery can in 2,850, why should it not rest. Besides, I don't very much if that on the island plantations runs more than 1,344 hours in each twelve months.

With regard to beet sugar in Utah. The experiments of Spreckles in California, in the course of time may result in cheaper sugar than sorghum will make here; when this is proved we shall then consider the beet, if the alkali in our soil does not increase the natural refractoriness of the juice to too great an extent and render it too uncertain and costly. Our machinery will be just the kind needed, and in the meantime we shall also experiment, and be prepared after each season's run on cane to put through a few hundred tons of beets. Brother Gates says some one has demonstrated 43 per cent. sweet in some beets; that must be a misprint of about 30 per cent; but if he really means that figure he should by all means secure some of those for seed and he could then raise beets which, with the simple process of cutting into slices, straining on a thrasher, and hanging up to dry, would be able to sweeten his coffee by his droppings in a small piece, and his cook would need only a humming grater and a few chips of beet to sweeten her pies. The greatest practical per cent I ever heard of in favor of the beet is sixteen; some persons have claimed eighteen, but it has never been practically demonstrated, and the European factories make all their contract for beets containing between eleven and thirteen, not less than eleven nor exceeding more than thirteen.

ARTHUR STAYNER

It is stated that there are over 500 applicants for the position of assessor in the Territory of Wyoming, which Judge Blair is expected to vacate shortly, upon the expiration of his term.

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