

MIGHT IMPAIR WATER IN LAKE.

Prof. Marcus E. Jones Advises
Smelter Men to Consider Some
Chemical Questions

BEFORE BUILDING BIG PLANTS

On the Shores of America's Great In-
land Sea—Says the Government
Might Interfere.

Noting the progress that is being made by the American Smelting and Refining company towards the erection of large copper smelters near Black Rock on the south end of the Great Salt Lake, Prof. Marcus E. Jones, the well known chemist and metallurgist, addressed the following communication to the "News" in which he undertakes to point out some of the dangers that might arise from the location of the proposed plant on the shores of the lake. Prof. Jones, who has appeared as a witness against the smelters in several damage cases brought up for trial in local courts, says:

It is now definitely known that some or all of the smelters are contemplating removing to the shores of the lake near Black Rock, for the purpose of avoiding litigation on the smoke question. This certainly will be a great benefit to Salt Lake City and the valley, especially if the smelters are located around the northern end of the mountain so that the fumes driven by the prevailing winds will be condensed on the mountain sides. It will not, however, do away with all the damage from arsenic, but as the lake is the only industry that will be seriously affected it will not be so bad as now. In addition, the fumes on the eastern side of the Ogutribia will in three years begin to show damage to crops and trees.

So far the smelters are to be commended in their attempt to minimize the damage they are doing, but there are other things which they should consider carefully before going to the expense of say \$2,000,000 in erecting new plants.

To make this plain let me show what they are producing. For a moment, The Bingham Consolidated is treating about 250 tons of ore per day, which goes about 3 per cent arsenic. Some of the arsenic goes into the slag, but more of it goes into the air as sulphide of arsenic, or say 5 tons per day. The Utah Consolidated, or Highland Boy, is treating over 500 tons of ore per day, of which about 2 per cent is arsenic or more, most of this goes into the air as sulphide of arsenic, or say 8 to 9 tons per day. The United States smelter is treating over 400 tons of ore per day of which about 4 per cent is arsenic. About one-quarter of this goes into the air, and about one-half of the rest goes into the Jordan from the granulated slag, or say 10 to 12 tons per day of arsenic as sulphide. So from these three smelters alone there are produced about 25 tons of arsenic per day, or say over 50 tons of sulphide of arsenic per day. Now when we know that three grains of this will kill any ordinary animal including men, we can see what a menace this arsenic is. In addition, these smelters are producing over 1,000 tons of sulphurous acid per day as fumes and throwing it into the air to fall on crops and land and kill. This with the dust and arsenic, are the damaging elements that come from the smelters. All the smelters produce on an average about 1 per cent of fine dust to the ton of ore treated, or say 12 tons per day. Considerable of this is poisonous, especially the copper as sulphate or blue vitriol, and the iron as sulphate or coppers. There is much arsenic also in the fine dust.

Now if the smelters are located on the edge of the lake fully one-half of the arsenic, sulphurous acid, and dust will get into the lake at once and about one-half of the remainder will drain into it later. The chemical reactions that will take place with the waters of the lake when these elements

WOMEN WHO ARE HELPING THE PROGRESS OF THE WORLD.

Pe-ru-na is Their Remedy in Sickness--Their Safeguard in Health.



Restored to Health By Pe-ru-na.

Mrs. Sarah Milliman, 25 Johnson's Park, Buffalo, N. Y., organizer of Buffalo Dressmakers Union, and member of the Maccabees, writes:

"For over a year I suffered with NEURALGIA AND HEADACHE. My eyes were affected and had a bulged appearance. I was patient in trying several remedies, without success. Finally, having heard that Pe-ru-na had cured such cases, I gave it a trial and within three months was restored to health."

"Since then I have not had the least indication of a return of the ailment."

Grateful to Pe-ru-na.

Miss Marie Lepschaw, 27 Second Street, Portland, Ore., member Garment Workers' Union, Local 228, writes:

"I have been troubled off and on for the last three years with biliousness and constipation, causing the food to lie heavy on my stomach. I had heartburn, acid gas rising in my throat, and a general distressed feeling. There were many days when I was compelled to take pills or bitter water for the bowels, but after using Pe-ru-na for several weeks, I found to my sur-

prise that the trouble had disappeared and that I was once more in my usual normal health."

Has Learned the Value of Pe-ru-na.

Miss Mae Marine, Beatrice, Neb., member National Aid Society, writes:

"For seven years I worked steadily without getting any vacation. This gradually wore out my system and especially affected my stomach and bowels. For the last three years I had severe indigestion, flatulence, heartburn and occasional nausea. I could not afford to take a rest, and reading of the value of Pe-ru-na, I thought I would try it."

"I am pleased to state that within four weeks my stomach was entirely well, and I could digest my food without the least trouble."

Pe-ru-na Keeps Her in Perfect Health.

Mrs. H. Kassatt, for over ten years the manager of a plant which furnished ladies' wear and employed hundreds of women, writes from 1309 W. 18th Street, Des Moines, Ia.:

"About two years ago I felt that I must take a long rest, as I had been unable to work for over a month, and could not regain my strength. I could not sleep at night and was in a very nervous, high-strung condition."

"I decided to try what Pe-ru-na would do to build up my strength, and am pleased to say that I began to improve very shortly, and in less than two months I was able to take up my work and felt better than I have for years."

Recommends Pe-ru-na to Other Sufferers.

Miss Laura Engel, 116 Josephine St., Syracuse, N. Y., Sup't Aarons Millinery store, writes:

"I contracted a cold which settled in catarrh of the head and throat. I thought that in time it would leave me, and therefore did not take anything for it. But, instead of leaving me, it became worse, and then when I took another cold I was in such a condition that I had to do something for it. Every morning I had to hawk and spit. My head was so stuffed up that I could not breathe well at night. When I had taken Pe-ru-na for a week and was beginning to see signs of relief, I was very glad, I can tell you. I used it carefully according to directions for about two months, and it was the means of curing me entirely. I recommend it to those suffering with catarrh."

Address Dr. S. B. Hartman, President of The Hartman Sanitarium, Columbus, Ohio.

get into it will result in the production of thousands of tons of sulphate of soda in addition to what are now in the lake, and so the reduction of the salt in the lake. The copper and iron will be deposited and become harmless probably, while the arsenic will be spread through the water and poison it for bathers and for the making of salt.

Since the lake is the property of Uncle Sam the smelters will soon come into collision with the government and will be promptly and permanently shut down. They will find that fighting the government will be a far different thing from fighting a lot of farmers.

In view of these facts from the Bingham Consolidated and the Utah Consolidated, it is not wise for our smelting friends to go slow; very slow, before running such a risk? There is no one in Utah who desires the success of the smelting industry here more than I, and no one who wishes the smelters to save their products more than I, for it means hundreds of millions to this industry, more in fact than any one dare to dream.

Would it not therefore, be well for them to follow along the lines the writer has already given in the "News" and save their fumes and convert them into valuable commercial products? If it were necessary they could condense their acids for a year or so into the mouth of the Jordan before any bad effects would be felt on the north shore or in the salt lake region because there is no connection now with the latter region west of the Jordan except by way of the north end of Antelope Island. Within this time the smelters would have created a market for all their surplus acid and would not need to run it into the lake.

MARCUS E. JONES.

Dancing, Saltair, tonight, 8 o'clock.

CATTLE SHIPMENTS.

Movement From Montana This Spring Has Been Very Heavy.

Special Correspondence.

Wisdom, Mont., May 11.—The movement of cattle this spring has been unprecedented in the history of the Big Hole valley. Nearly 12,000 head of steers were fed here during the past winter and less than 1,000 remain unsold, and these are the cattle which promise to be worked off in the next few weeks. About 1,000 head of those shipped went to Seattle and Portland, and the remainder to Denver, Omaha, Sioux City and Chicago, the eastern market, as a rule, showing the best prices. The figures do not include fat cows and calves which constitute a large part of the product of the basin. The prices have ranged considerably higher than last year.

FIRST ANNIVERSARY.

Ensign State Sunday Schools Will Celebrate Monday Night.

The Ensign State Sunday School Union will celebrate the first anniversary of its organization in the Twenty-first ward meetinghouse Monday evening, May 15, 1905, at 8 o'clock, and it is hoped that every officer and teacher in the Ensign state will be present. In addition to the regular program outlined for the evening's work, a special program has been prepared consisting of a song solo by Walter Wallace, a duet by Misses June and Edith Edmunds, and a short address by Supt. George H. Wallace, giving a review of the past year's work in the Union. The following is a brief outline of the program for the departments:

Superintendents' department will discuss the reports on observance of Word of Wisdom and tithing; attendance of pupils of higher departments at ward and stake meetings; purposes and benefits of the general register; maintenance of order in departments.

Secretaries' department will consider

the quarterly summaries and monthly reports.

Librarians' department—Consideration of books now in the libraries, also special topics discussed at the convention.

Chorists and organists' department—Impressions recalled at the district convention by members of department.

Theological department—Discussion of topics treated at our district convention. Second intermediate department—Lesson work on Church history and Book of Mormon, for the month of June.

First intermediate department—Special topic, "Bright Young Men," lessons from Book of Mormon and the Bible.

Primary department—Bright Young Men—(1) fast-day exercises; (2) Bessie Bowring will teach a song; (3) story correlated with one of the Bible lessons by Florence Aveson.

Kindergarten department—(1) List of stories and songs for June, July and August; Mary A. Taylor (2) Bright Young, fast-day exercise, Jessie Sears, Eleventh ward; (3) story, "Obedience," by Annie Wilken, Twentieth ward; (4) song, "The Water of Life," by the same; (5) story, "Courage," by Hattie Whitney, Eighteenth ward; (6) convention summary.

A Good Suggestion.

Mr. C. H. Walworth of Lemon City, Fla., has written the manufacturers that much better results are obtained from the use of Chamberlain's Colic, Cholera and Diarrhoea Remedy in cases of colic in the stomach, colic and cholera morbus by taking the water as hot as the patient can bear. That when taken in this way the effect is double in rapidity. "It seems to get at the right spot instantly," he says. For sale by all druggists.

Saltair, dancing tonight, 8 o'clock.

AMPLE SCHOOL FUNDS.

Board Will Not Have to Borrow as for Several Years Past.

Notwithstanding the fact that the county commissioners last year failed to grant the request of the city board of education to make the school levy the limit of 5 1/2 mills and fixed the levy at 5.2 mills, the financial condition of the board is in good shape and the present term will be brought to a close without the necessity of having to borrow funds from a local bank as has been done for several years past. The board has practiced economy wherever possible and has sold some of its real property in order to make ends meet.

The board will endeavor to induce the county commissioners to fix the city school levy at the limit this year so that extensive improvements now contemplated may be carried out also and steps may be taken to establish manual training in the high schools. At present manual training is only taught in the grade schools. Altogether the outlook for the advancement in school work during the coming year is very bright, provided the necessary tax levy can be secured.

It is expected that additional free kindergarten will be opened up also and steps may be taken to establish manual training in the high schools. At present manual training is only taught in the grade schools. Altogether the outlook for the advancement in school work during the coming year is very bright, provided the necessary tax levy can be secured.

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Marriage Licenses.

Marriage licenses were issued by the county clerk during the past week to the following persons:

Jacob Hunter, Granger; Martha Bolton, Granger.

G. W. Truesblood, Norfolk, Va.; Mary J. White, Salt Lake.

Leonard Hyde, Salt Lake; Wilhelm A. Peterson, Salt Lake.

J. E. Beckstead, Salt Lake; Nona E. Cengro, Salt Lake.

W. C. Welch, Bingham; Hedvig M. Christensen, Gunnison.

John Lancaster West Jordan; Martha Maynard, Hiverton.

W. C. Harris, Salt Lake; Justine E. True, Salt Lake.

Arthur E. White, Murray; Jennie Freeze, Murray.

Henry Huber, Payson; Emma Hicks, Spanish Fork.

David Hodge, Sugar City; Roena Tanner, Clover.

Edward G. Kendrick, Salt Lake; Ella L. Jorgensen, Salt Lake.

Alfred Bailey, Salt Lake; Allie Allen, Kansas City, Mo.

William H. Taylor, Taylorsville; Clara A. Glover, West Jordan.

David Allgood, Salt Lake; Miriam Dayley, Salt Lake.

Thomas H. Lyon, Denver; Amelia Tressner, Denver.

Amon Platt, Bingham; Ellen Birckett, Dalton.

G. Walter Bishop, Salt Lake; Pearl M. Smith, Salt Lake.

A Good Family Liniment.

Every family should be supplied with a bottle of Chamberlain's Pain Balm. For cuts, bruises, burns, scalds and similar injuries, which frequent accidents occasion, there is nothing so good. It soothes the wound and not only gives instant relief from the pain, but it also serves to heal in about one-third the time required by the usual treatment. As it is an antiseptic it keeps the wound from becoming infected. Sold by all druggists.

Saltair, dancing tonight, 8 o'clock.

NITROGEN LOVES FREEDOM.

When left alone to its natural functions nitrogen pursues a perfectly peaceful course; but when man succeeds in capturing it and combining it with other elements it becomes a dire potentiality for evil, as is obvious in the recent events of the war in the far east and in the crimes committed last week in the streets of Moscow. The love of freedom, so to speak, characteristic of nitrogen is terribly exemplified in the explosion of the bomb in which it is imprisoned and bound to other elements. On the slightest provocation—a spark, a shock, a fuse—the nitrogen suddenly expands from seemingly nothing, as regards the space which it occupies, into infinity. This is, in reality, what happens when dynamite, lyddite or other unstable nitrogen compounds explode when hurled in shells in warfare and in bombs in desperate attacks on human lives. Nitrogen, against its natural disposition, is locked up in an uncongenial space in these compounds, from which it is set free by very simple means in an enormous expanded gaseous state with deadly effect, returning, in fact, to its normal peaceful mission once more. It is the analogue of the sword and the lightning bolt in the nitrogen explosion. Nitrogen is the modern engine of warfare and crime; in the free state in the atmosphere it ministers directly to the quiet and peace needs of plant and human life.—The Lancet.

Grand Ball, Saltair, tonight.

Spring is Fair But Fickle

And it's a mighty wise thing to have a "Cravenette" rain coat or a light top coat to get behind when she weeps and pours.

We are prepared for such moods as well as her bright, warm smiles with a remarkably fine collection of

SUPERIOR TAILORED SUITS AND OVERCOATS

You will find your exact size in stylish sack suits, of worsteds, chevrons, tweeds, and other leading materials at prices ranging from \$10.00 to \$25.00. New line, light shirts, handsome neckwear, attractive hosiery, light-weight under clothing, at lowest prices their value will permit.

Poulton, Madsen, Owen & Co.,

"Where the Clothes Fit," 111-113 Main Street.

GODBE PITS.

PRESCRIPTION DRUGGISTS, 101 MAIN ST.

NEXT TIME YOU GO EAST

Be Sure And Use The

UNION PACIFIC AND CHICAGO, MILWAUKEE AND ST. PAUL LINE

The Route of the

OVERLAND LIMITED.

Through Cars to Chicago.

CLAUDE S. WILLIAMS, Commercial Agent

106 West Second South Street, Salt Lake City, Utah.

Excursion East

One fare plus two dollars for the round trip to CHICAGO, ST. LOUIS, KANSAS CITY, OMAHA, MEMPHIS, SAINT PAUL, MINNEAPOLIS and other eastern points. Tickets on sale May 27th and 29th, June 3rd, 5th, 10th and 12th. Transit limit ten days in each direction with stop over privileges. Final return limit September 15th. Standard and Tourist Sleepers through to Chicago without change. Dining cars for all meals. Make your reservations early. Telephone 245.

E. DRAKE, D. P. A.

GEO. A. BIBLE, T. P. A.

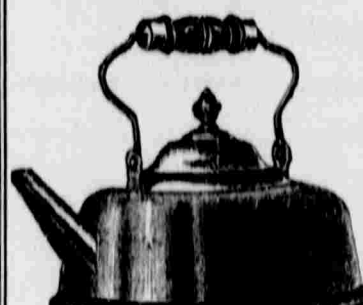
100 W. 2nd So., Salt Lake City.

CHAS. B. SLOAT, Gen'l Agt., Denver.



Walker's Store.

Monday in The "Busy Basement."



We have a fine line of tea kettles—they are nickel plated tea kettles—the sizes are 7, 8, and 9—they should sell for at least \$1.25, but Monday, you can get them for only

98c

Also, nickel, polished, oil stove or gas range, tea kettles—Special Monday—

19c

Walker Bros. Dry Goods Co