FORMALLY OPENED.

Speeches and Music at the New Mining Exchange Today

WILL MAKE CALLS ON SATURDAY.

Glowing Forecasts as to the Future of Mines and Mining in Utah—Business Prosperous Today.

The Salt Lake Mining Exchange is now a reality and its enterprising promoters predict for it an active and prosperous future. Its doors were formally thrown open to the public at 11:00 today and music and speech making marked the occasion.

President Dunsdon outlined the institution's objects and declared that it had a most auspicious and useful future. He dwelt briefly upon the mining resources of the Territory referring especially to the districts of Park City, Bingham and Tintic and said that mining business generally throughout the Territory was brighter ...day than at any previous time in its history, not excepting the days when silver was worth a dollar an ounce.

Judge Calhoun made one of his characteristic Laudat Optimi speeches and was listened to with rapt attention as he glowingly depicted the mineral resources and possibility of the nation's forty-fifth state.

Mayor Baskin followed in a talk in which he made the declaration that the great mineral deposits of Utah were only beginning to be uncovered. Each succeeding year would witness remarkable discoveries and progress in that line. As an assurance he pointed to the fact becoming famous Marcus or Cosmo Floyd district which ever since the settlement of this Territory had been stamped over by intelligent men entirely ignorant of the enthroned wealth beneath their feet. The geological revolution in the country was simply evidence of many such discoveries in Utah.

Major Baskin was followed by a young man from Denver, the author of Silver Lining, who detailed his experiences in "the heart of the gold big sell" and gave no less one for coming west.

Music was furnished by Hoch's band.

IN POLICE COURT CIRCLES.

Thirty-five Days for Stealing a Watch—Another Man Charged with Purloining a Ticket.

Robert Shaw, a young man of 18 years, and a piano player by profession, stood up before Justice Smith this morning, to answer to a charge of housebreaking. To this he pleaded not guilty, and after a short consultation between the court and Detective Sheets, the arresting officer, the charge was dismissed, and one of petit larceny substituted, to which the young man after some hesitation entered a plea of guilty.

The offense consisted in the theft of a watch which he tried to barter for a ticket to Denver, but being unsuccessful in this, an attempt was made to pawn it to a Second South street broker. He claim not dispose of the transgressor, however, and so he became somewhat afraid of being arrested, he was about to resign it to its owner, when the detective pounced upon him and marched him to the police station.

The court, in questioning the defendant, elicited the information that he has been implicated in petty thefts before, and although he showed a contrite spirit, it was thought best that he should be taught a lesson, and therefore was ordered imprisoned in the city jail for a period of 35 days.

Ed Meets, who claims he has been up in arms against the wine cup for his, these many years, said he had to indulge a little to excess on Saturday night or Christmas, and as his indulgence went a little too far, he was rewarded with a term of 30 days.

The case of the People vs H. Buchanan and Alex Cook, two soldiers from Fort Douglas, who are charged with purloining a gold watch from a Third South street resort, will be ventilated in open court on next Monday at 2 p. m.

D. F. Jackson, "a called gentleman" who is charged by a similarly complexioned friend with having stolen his wearing apparel, pleaded "not guilty this day," and will have a hearing tomorrow afternoon.

John Williams, whose only mitigation for stealing a pair of pants from Walker Bros. & Fyfe's store on Christmas eve was extreme poverty and a temptation too much for his honesty, was sent to jail for twenty days.

L. D. Williams and John Hobson engaged in a little encounter in the Gilmer saloon on Christmas eve, for which they were being tried at present.

WANTED TO DIE.

Jim King, a Celestial, Cuts His Throat With a Razor.

Jim King, a Celestial, who for some years past has been engaged as a cook at the Bingham mines, came in from that camp a few days ago to spend the holidays and likewise his money. He, being a great lover of gambling, tried his luck at the fan tan table, with the result that all his hard earnings suddenly vanished.

Brooding over his losses he repaired to his room in Plum alley early this morning, in a state of mental anguish, and using a razor, drew it across his throat with the premeditated intent of ending his earthly career. The attempt, however, did not prove successful, and he was quickly given medical attention and placed on a fair way to recovery.

TO SPEND THE HOLIDAYS.

Messrs. Tuddenham and Maxwell are Home From Montana.

Mr. W. J. Tuddenham of this city, who has been in Montana for four months the past, directing the erection of a copper smelting refinery plant for the Parrot Mining company has returned home to spend the holidays. Mr. Tuddenham has the contract for the building of the plant and employs from 150 to 175 men, a great number of whom are Salt Lakers. The job is one which will require the greater part of the year 1896 to complete, and is similar to the job of Heyburn, named after the president of the company, thirty-two miles west of Butte.

In company with Mr. Tuddenham is Mr. James Maxwell, also of this city, who has charge of the brickyards, all the brick used in the substructure of the plant being made there. The brickyards and quarries in operation are owned by these gentlemen.

Democratic Caucus.

In response to a call from Chairman Powers of the Democratic State committee, the Democratic members-elect of the Legislature will meet at party headquarters in the Hooper block, on Saturday evening, January 4, for consultation. Members of the state committee will also be present. The state committee will meet at headquarters at 3 p.m., Monday, January 6. Members of the Legislature are also asked to attend this meeting.

Home From New Zealand.

Elder James Barrow, of the Ninth ward of this city, who recently returned from a mission to New Zealand, was a caller at the News office today. He left home to take up his missionary work May 31, 1893. On arriving in New Zealand he was set apart to perform missionary work among the European population, which numbers about 500,000. Of this element the English and Scandinavian nationalities largely predominate. Elder Barrow enjoyed himself thoroughly while away from home. He says the New Zealand mission is in a very prosperous condition.

FROM TENNESSEE.

Elder F. M. Bodewinkel, of Oneida Valley, Hancock county, Idaho, was also in the city today on his way home from a mission to middle Tennessee, for which part of the world he left October 30, 1893. He enjoyed the labors very much and says that he was never ill a single day from the time of his departure until his return. The mission projects in middle Tennessee, he says, are very good.

Ladies' Meeting.

The ladies semi-monthly meeting will convene in the Fifteenth ward assembly hall on Saturday the 28th inst., commencing at 2 o'clock. All are invited. M. Isabella Horne, President.

Woman's Exponent.

The Christmas number of the Woman's Exponent, just issued, is more than usually interesting. It contains some well-written original poems, also stories by home writers and other articles of merit; editorial "Celebrating Sisterhood" and Emma G. Ball, are editorials. The stories "An Evening in the Country" and "The Christmas Eve," are real and attractively written. There is also an article on Christmas which deserves notice. Altogether it is an interesting number.

ALKALI IS PLANT FOOD.

Treatise on the Subject by an Eminent Chemist.

GUNNISON, Dec. 21, 1895.

To the Editor.

Dear Sir—In my compilation of "Early Years' Experience in Irrigation in the Arid Zone" I asked for and kindly received a supplement from J. T. Kingsbury, Ph. D., of the University of Utah; now, by permission of the author, I ask you if you kindly will give it publicity in the DESERET NEWS.

It is a scientific treatise on the fertilizing effects of alkalies, found in, and may be called native to, arid zones.

It is of particular interest to farmers within our Rocky Mountain regions, and, I think, should be made a study by progressive candidates in agricultural science in our arid zone; to give stimulus to chemical research, essential to success in this our prominent industry.

Very respectfully yours,
CHRISTIAN A. MADSEN.

[COPY.]

THE UNIVERSITY OF UTAH,
Chemical and Physical Department,
SALT LAKE CITY,
November 25th, 1895.

Bishop Christian A. Madsen, Guntnison, Utah:

Dear Sir—Your letter of inquiry has been in my hands for some time, and my job answered. I promised to answer it, and now comes on, as far as I am able to do so. On account of being busy with school duties and chemical work, it has almost been impossible for me to find time to reply to your very interesting and important letter until today.

In regard to question 1, it may be stated that our mountain valleys are supplied with large quantities of alkalies, and therefore the soil in many instances is alkaline soil, and alkaline to plant food. The major relative ratio to the constituents favorable to the accumulation of Alkali, and consequently mineral plant food. Silica, a principal food for wheat, must be in a condition in which it can be taken up by the plant, otherwise it is useless as a plant food. The more silicate material there is present in the soil, the greater the quantity of silica, as a general thing, is a condition capable of being absorbed by the plant. Alkali in water increases its solvent power on silica; and in this way puts the silica in a condition whereby it is readily utilized by the plant as food. Alkaline matter promotes the disintegration of soils, by which in part mineral food is prepared for the plant. In short, it is generally recognized, that wherever alkaline matter exists, plant food is generally abundant, so far as mineral material is concerned. Alkali radicals, too, have the necessary conditions, usually, favorable to the accumulation of alkali in mineral, while, where the magnificent alkali land deposits occur the rainfall is abundant, and washes out of the soil much of the mineral food of plants, in many instances, and especially the salts commonly known as alkalies. It is true, however, that the soil contains, in this manner, pole tools has attained power to produce strength, to the essential ingredients of the plant, than for other mineral matter, and thus enabled more of the former than of the latter. It is not so doubtful that alkali seems to prepare for the plants greater quantity in contrast to the presence of other alkali, but alkali other food, or plant food is in excess for the same reason.

No. 2. Humus is composed of potassium, or bicarbonate of potassium. The latter substance contains more carbonic acid than the former. Common sulphate generally has several substances so intimately mixed with the one given below.

No. 3. Humus will and usually accumulate nitrogen to the soil in quite large quantities on account of its very rich, supplying abundance of organic matter. Roots are among the agencies through which rocks are disintegrated. Except the mineral food for plants, in many instances, are prepared for the plant below than the humus extracts it from the soil, by reason of the abundance of roots, of which humus is very characteristic. Of course, the food of humus being little different in regard to the proportional amounts of its constituents, from that of other plants, as for example wheat, corn, etc., an opportunity is given, while roots are growing and decaying the land, for the constituents of other plants to accumulate in excess of the needs of others.

No. 4. In the first stage of the composition of organic or vegetable matter, the humus is known, can probably to nitric acid and alkali; in a later stage humic acid and humus appear, when the humus is generally black. It is the water that makes it possible, for what is known as humus, to be produced. As this particular kind of organic matter is found in the presence of water and in the absence of free oxygen.

No. 5. Decaying is a slow process of oxidation, while combustion or burning is a rapid process of oxidation. The latter process is not accompanied with light and seldom heat; the latter is accompanied with light and usually heat. Both decaying and burning are a uniting of oxygen of the air chemically with the substance, decaying and burning. The products are the same, namely, carbonic acid gas and water, the other remaining as the unburned or most mineral substance.

No. 6. It is somewhat questionable to my mind, as to whether a correct observation has been made, in regard to the term commonly used mineral ("alkali") as fed as it comes to the surface. Lastly, according to my experience and observation, can thrive on a soil impregnated with alkali, where wheat and other plants would not grow. It is something like horse, and ordinarily worth more of the alkalies than many other plants do, or can possibly thrive, and consists to certain extent the alkali ("substance") in solution in the irrigation water.

No. 7. Alkali soils are "conquered" mostly by irrigation and drainage. Irrigation will only partly overcome the alkali, and does so by carrying it down into the soil, from which it will arise again, through capillary action.

The land southwest of Salt Lake City was no doubt in the usual part from some of the alkali by irrigation, together with drainage. Lowers so much within more recent years has done something towards subduing these alkaline soils. Farmers have told me that they have successfully reclaimed the condition of some of their land in question, by raising on their land beets, carrots and especially, if will California clover. I remember one instance of a gentleman speaking to me about the use of gypsum, as a remedy for the alkali. He owed land in the region referred to above. Whether he employed this mineral to help neutralize the alkaline soil or not I do not know. When gypsum is used for such a purpose the alkali is not gotten rid of, but only changed into a less injurious form. I might state here that the alkaline matter, or what you have called substance, is mostly sodium carbonate, sal soda, sodium, sulphate (glauber salts) sodium chloride (common salt). Sodium carbonate acted with sulphuric acid or gypsum, or the black alkali, second compound is the white alkali, and much less destructive to plants, of the two kinds. Now, when gypsum is mixed with the black alkali, carbonate of lime (lime stone or marble) and the white alkali are formed. The white alkali, as stated is less injurious than the black, to plants. And in clayey soil quite carbonate of lime is very beneficial in ameliorating their compactness, making them more porous and much easier to work.

No. 8. Our alkaline soils are certainly rich in the mineral food of plants for richer than the mineral soils in other regions, for the reasons already assigned, and in your own words "these alkali mineral accumulations are a blessing to agriculture." It may be also that nitrogen is converted to a certain extent, by alkali, into a form in which it can be utilized by the plant. By the presence of ozone, nitrogen and water are converted into ammonium nitrite, and hence ammonium nitrate. It is claimed that an alkali carbonate will accomplish the same thing.

There is no doubt about these arid valleys being a great storehouse of fertile soil, rich in the mineral food of plants, and that the alkaline matter is sufficiently subdued by irrigation, to give the farmer an opportunity to raise crops, which through the abundance of mineral food, makes them be-ted in many instances truly luxuriant.

I should be pleased to assist you farther in your inquiries in my chemical line, as far as I shall be able to do so. And if I have not quite myself clear, do not hesitate to write again.

Very respectfully,
J. T. KINGSBURY.

PROVO.

PROVO, UTAH, Dec. 25, 1895.

First District Court.

The case of the Victor Gold and Silver Mining Co. vs The National Bank of the Republic again came up in the First district court this morning.

In the case of H. B. Brewster, editor of the Eastern Utah Advocate, bound over to keep the peace, the jury on a charge of criminal libel, judge King refused his bail from $500 to $200, bond to be approved by Probate Judge Olsen, of Carbon county.

Licensed to Wed.

County Clerk Jones has issued the following marriage licenses: John T. Gordon, of Highland, aged 24, and Margaret Miller, of Lehi, aged 22; Noah M. Nesbit Jr., aged 24, and Ella J. Eaton, aged 21, both of Payson; Thomas E. Cumming, aged 23, and Maude Grant, aged 19, both of Lehi; Charles Cummings, aged 20, and Ethel D. Grant, aged 20, both of Lake Shore; James E. Hunter, aged 19, and Laura Young, aged 20, both of American Fork; John Smith, of Alpine, aged 21, and Lillian Rhodes, of Lehi, aged 20.

Missionaries in Kentucky.

HUNTSVILLE, Christmas Day, 1895.

To the Editor:

I write to let you know how we are getting along in this part of the South. There are many men who have had their minds opened to the truths of the doctrine of the Latter-day Saints. Some side with our views even against their own preachers. They know we are right and will acknowledge the same, but do not think it necessary to obey the Gospel as we teach it. Some believe they have had visits and dreams informing them that this would soon be given them. They listen patiently while we explain the different principles of the Gospel to them, but it is very hard to convince them that they have to do what these principles in order to get into the kingdom of heaven—there is so much teaching that all are in the kingdom, and that it does not matter to what church we belong so we are all good and do the will of God without obeying His commands.

We have many friends in this county, among them James Horsford, of Huntsville, who says, "Gentlemen make my home your home; you are welcome to make use of it." Also Dr. D. A. Lacy, of Cerro Gordo, who gave out an appointment for us to preach, furnished us a church and provided us with food and shelter in the old, also to two new Elders coming out. My former companion has taken one and gone to Allen county, while Elder King, of Cache, Hatfield county, Utah, and I will travel in Cumberland county until Rudolph, then go to Owen county.

N. T. FIELD,
Greenville, Muhlenberg Co., Ky.

LITERARY NOTES.

Godey's Magazine for January has brought out another novelty in the shape of a woman's number. All the articles, stories and poems in it are signed by of which women. In every department, fashion department and all the feminine matters, the customary standard is maintained. Godey's Magazine announces a prize of $50 for the best short story in it. In every department of this magazine, it seems to indeed time and long thousand words long, and must be received by February 10th. The Godey Company, 3233 Lafayette place, New York.

The first magazine for the new year is the brilliant January number of Frank Leslie's Popular Monthly, illustrated with more than one hundred up-to-date pictures by the best illustrators of America and Europe. The leading article, upon Great Holy Cities, describes the world's glittering artificial waterways of the present day, including the new Baltic, the Manchester and the Corinth canals of Europe, and the Welland, the Soo, Sault Ste. Marie and the Harlem, in America. Albert L. Rawson's sketches, under the title of "A Bicycle Rambler," an interesting chapter of reminiscences of the famous editors of wits, writers, poets and singers who brought celebrity to Podd's resort, in New York city, a generation back. There are also other valuable features.

Lippincott's Magazine for January, 1896, contains a novel by Mrs. Alexander, the author of The Wooing Ott, and other books. The Woman of Amestris is a Neapolitan story by Mrs. Pullen, better known as Elizabeth Dwelley, who shows southern life as it is seen from the inner back. The Way of a Will is traced by Wm. T. Nichols, already known to the readers of Lippincott's. Charles Dudley Warner tells with humorous Western exaggeration the tale of The Man Who Came to Town. Jacob Riis tells in Jacob A. Riis's Journal by John Stewart Kennedy, the first of a series of papers on a subject which now holds a prominent place in public interest. Lucian Harris Weeks writes of Some Women in Doubtful Ways. Hero—authors who appeared in weak parts, Richard Henry Stoddard gives an reminiscences of Longfellow, and Oliver McKee expounds Ao Sutton Copy-Founder. The verse of the number is by George E. Percy, editor and Charles G. D. Roberts.

COMMERCIAL.

SALT LAKE CLEARING HOUSE.

Today's clearing house exchanges amounted to $239,720, same day last year, $203,691.

TODAY'S QUOTATIONS.

New York.—Silver, 65½; lead, $3.00.
London.—Silver, 30 7-16d.

ORE AND BULLION.

W. S. McCornick & Co. received today: Silver and lead ores, 21,300 Hanauer mills, 20,000. Total, 41,300. T. R. Cope & Co. received today: Silver and lead ores, 22,000; bullion, $10,800. Total, 32,800.

Wells, Fargo & Co. received today: Bullion, $7,925.

STOCKS AND MARKETS.

New York, Dec. 25.—There was a current of news tending to discourage and depress the stock market today, which was not at a time by a considerable representation of values. Sugar sold down 1½.

The month of the market was mostly disappointing to current expectations.

Pimples, Blotches, Blackheads, red, rough, and oily skin, prevented by Cuticura Soap, the purest of skin purifying and beautifying soap in the world, as well as purest and sweetest for toilet and bath. The only preventive of pimples, because the only preventive of inflammation of the pores.

FRAGRANT
VANITY FAIR
CIGARETTES

R. K.
THOMAS,

26 to 32 East First South St.

THE UP-TO-DATE
RETAIL HOUSE

Of the State of Utah.

Modern Merchandising Means
Making Moderate Margins.

THIS KIND OF SELLING FROM NOW 'TIL AFTER CHRISTMAS.

Jackets.

CAPES

People come to us for their Capes and Jackets because, as they say, we are lower on these goods than any other house. Of course we are. We know how to buy these goods, and we succeed with a moderate profit.

FROM NOW 'TIL AFTER CHRISTMAS.

Jackets. CAPES

Dress Goods.

"R. K. Thomas for Dress Goods" has become a household expression, which speaks volumes. From now 'til Christmas we are going to offer some rare bargains in this department.

Shoes.

You we know now to buy Shoes—bought before the advance in leather. You'll get the benefit of our forethought. From now 'til after Christmas we'll place before you the best Shoe for the money we ever bought in your life.

Underwear.

We've had to duplicate and triplicate our 50 purchases in Women's and Children's Underwear. This lot—the story better than anything else—we are headquarters for these goods. Will continue our small margin selling 'til after Christmas.

Handkerchiefs.

We always have been, are now and always will be headquarters for Handkerchiefs.

One small great display room now 'til after Christmas.

Gloves.

We have the best 75 cent Kid Glove in the market. Come to us for Gloves.

Remnants of DRESS GOODS.
Remnants of OUTINGS.
Remnants of TOWELINGS.
Remnants of TABLE LINENS.
Remnants of SILKS.
Remnants of BUTTONS.
Remnants of FLANNELS.

Silks.

50 pieces of Black Silks, assorted weaves, in beauties suitable for a waist, skirt or a full dress. So that all may have a Silk dress, we have marked these goods just two-thirds their values. Don't miss it.

Blankets & Comforts.

The cold, chilly nights of December, January and February, you need not be cold. We sell Blankets as low as 75 cents a pair. We sell a good Comforter for $1.25.

We sell Blankets and Comforts.

Men's Goods.

Our 75 cent wool ribbed Shirts and Drawers are the best things ever offered for the money. Ask to see them.

We carry a complete line of Men's Furnishings, but remember this:

There's no fancy prices on them.

Babies' Bonnets.

We were successful in securing another big drive in these goods. So we can sell you Babies' Bonnets at just half what they are usually sold for elsewhere.

A splendid line of Boys' and Girls' Caps for winter, just arrived.

Remnants of SHOES.
Remnants of SHEETINGS.
Remnants of LININGS.
Remnants of TRIMMINGS.
Remnants of LACES.
Remnants of EMBROIDERY.
Remnants of Everything.

Wrappers.

SHAWLS

What is nicer than a good warm Shawl.

Fashion's fancy brings us many new garments, but the shawl, the old faithful, holds its own.

Just ask to see
Our $1.00 Shawl.
Our $1.75 Shawl.
Our $2.00 Shawl.
Our $2.50 Shawl.
HAVE ONE.

Wrappers. SHAWLS

R. K. THOMAS