meaning the shooting, but in this case she believed it was justified. The witness testified that he he did not think Mrs. Bradley insane.

SERGT. LOHNMAN.

Sergt. Harry Lohnman, in charge of the police station when Mrs. Bradley was brought there after her arrest, testified that she talked in a rambling manner. She was very anxious to know Senator Brown's condition.

Witness stated Mrs. Bradley told him she did not intend to shoot Brown; that she loved the ground he walked on. She discussed her relations with Brown, said she was not married to him, but that he was the father of her two children and she wanted him to make her his wife.

He did not then form an opinion as to her sanity. She was nervous and excited and realized she had killed Brown. Witness thought the prisoner was sane.

POLICEMAN HUMERT.

Policeman Humert, who accompanied Mrs. Bradley from the hotel to the police station, said that at the hotel she seemed bewildered and had a "starestick" but afterward, at the station appeared rational and collected.

He expressed the opinion that Mrs. Bradley was sane and the defense noted exceptions to this testimony.

DR. E. W. WHITNEY.

Dr. E. W. Whitney of Salt Lake City testified that he attended Mrs. Bradley when her two children were born and later treated her for a premature miscarriage, his treatment on this latter occasion continuing for about two weeks in November, 1901. On Aug. 4, 1902, she again came to his office.

"State who came with her."

"I object," said the district attorney, "to collateral evidence immaterial to the issues in this case."

The objection was sustained.

On the date mentioned he sent her to a hospital. She told him she had suffered a premature birth. The premature birth, he said, occurred four days after her entry at the hospital, where she was kept until early in September. On May 16, 1905, at her residence, 215 west South Temple street, Salt Lake, Dr. Whitney stated he again treated for a miscarriage. She denied that diagnosis at the time, and witness described the colloquy that followed. Later she admitted the diagnosis was correct.

The defense brought out from the witness that the blood poisoning that set up in cases like that of Mrs. Bradley's affects the whole system, including the brain, and like all poisoning must leave some permanent injury to the system.

REPORTER McMAHON.

Louis A. McMahon, a newspaper reporter, told of Mrs. Bradley's bewildered and agitated appearance at the police station. She denied to him, he said, that she came to Washington with the intention of shooting Brown. He said she appeared as "one whose brain had been shaken to the base." The government immediately objected, and the objection was sustained. His opinion was that her mental condition was very much disturbed and that in such state an added shock might make her insane.

Mid-day recess was then taken.

Soothes itching skin. Heals cuts or burns without a scar. Cures piles, eczema, salt rheum, any itching. Doan Ointment. Your druggist sells it.

IN TROUBLE AGAIN.

Max Goldberg, Junk Man, Arrested on Charge of Grand Larceny.

Max Goldberg, the junk man, is again under arrest on the charge of grand larceny. He was arrested yesterday by Officer Taylor and will be arraigned in the criminal division of the city court tomorrow morning.

Goldberg was recently arested on the charge of receiving property stolen from the Utah Smelter & Supply company, but the case was dismissed owing to insufficient evidence. Since that time, however, Taylor has secured additional evidence and Goldberg again finds himself confronting a felony charge.

CARPENTER TOOLS STOLEN.

It was reported to the police this morning that some time last night thieves had stolen a quantity of carpenter tools from a new house being erected on Third and E streets. The tools stolen are valued at $50. The police are working on the case and have a clue which they believe will lead to the recovery of the tools and the arrest of the thief.

"BROWN OCTOBER ALE."

Two Men Caught With Sixteen Bottles Stolen Last Night.

Another burglary was committed last night when thieves broke into a warehouse at 337 west Second South street and stole 16 bottles of ale belonging to Reiger & Lindley. At 12:55 this morning Sergeant Hempel arrested two men giving the names of H. Spitzmago and Wm. Fisher, for the crime. The men had with them at the time of their arrest the ale. They had, according to the police, taken from the warehouse a barrel of ale and had the 6 bottles with them when arested. The men are charged with burglary and will be arraigned just as soon as a complaint is filed against them.

Well—

The man who forgets to wear a Knox hat forgets something *important*

We sell 'em.

172 SOUTH MAIN STREET.

Catarrh

Is a Constitutional Disease

Whatever organ or passage of the body it affects, and requires a constitutional remedy for its permanent cure.

It depends on an impure, impoverished, devitalized condition of the blood, which keeps the mucous membrane in a state of inflammation, and causes a debilitating and generally offensive discharge; also headaches, ringing noises, partial deafness, weak eyes.

Hood's Sarsaparilla by purifying, enriching and revitalizing the blood, removes the cause and effects permanent cures of all forms of catarrh.

Hood's Sarsaparilla

Is a Constitutional Remedy

In usual liquid form or chocolated tablets known as **Sarsatabs.** 100 doses $1.

ITALIAN BLOWS HIS HEAD OFF

Brooding Over Incurable Affliction He Becomes Mentally Unbalanced—Shoots Himself.

LIVED IN SHED BEHIND SALOON

Sarifino, Former Kemmerer Coal Miner, Could Not Enter Hospital So Became Desperate.

Made desperate because of affliction with an incurable disease, Skane Sarifino, an Italian coal miner, aged 50 years committed suicide at 4 o'clock this morning by blowing his head off with a shotgun. The suicide occurred in a shed at the rear of 586 west Second South street, where Sadafino had been living for several weeks. Death was instantaneous.

GREWSOME SIGHT.

An Italian named Fossoli, a saloonkeeper who rented the shed to Sarifino, heard the fatal shot and, rushing to the hovel, found Sarifino dead. He reported the case to the police and Officer Simpson hurried to the scene. He found the dead man in a pool of blood. Brains and pieces of bone were scattered about the place and the body was half reclining in bed. Officer Simpson at once communicated with Justice of the Peace Dana T. Smith and the latter ordered the body removed to O'Donnell's undertaking establishment.

Sarafino came here several weeks ago from Kemmerer, Wyo., and was suffering from a fatal disease. Dr. Waite ordered the man sent to a hospital, but he was not received. He remained at the shed for several days and seemed to be despondent and mentally unbalanced.

NO INQUEST NEEDED.

It is the belief of the police and other officials acquainted with the man's condition, that he suddenly became insane. Sarafino placed the muzzle of the shotgun under his right ear and pulled the trigger. His head was almost blown off.

The dead man has a brother employed at Murray and the authorities at once communicated with him. Justice Smith said an inquest would not be necessary as it was a plain case of self destruction.

"I suffered habitually from constipation. Doan's Regulets relieved and strengthened the bowels, so that they have been regular ever since."—A. E. Davis, grocer, Sulphur Springs, Tex.

AMUSEMENTS.

Theater—"In Old Kentucky" opens an engagement of three nights and a Wednesday matinee this evening.

* * *

Orpheum—The new bill listed in the Saturday News goes on tonight and great things are expected of it.

* * *

Grand—The new play at this house for the first half of the week is entitled "The Royal Slave," a romantic drama laid in Mexico.

* * *

Lyric—The Moore Stock company will present all the week "An Oath of Vengeance;" only one show is now given nightly.

Feel languid, weak, run-down? Headache? Stomach "off?"—Just a plain case of lazy liver. Burdock Blood Bitters tones liver and stomach, promotes digestion, purifies the blood.

ALFALFA IN ECUADOR.

Large CloverCrops Are Raised at High Altitudes in the Andes.

Consul-General H. R. Dietrich reports from Guayaquil on alfalfa culture in Ecuador as follows:

As to its origin, alfalfa (medicago sativa) was introduced into Ecuador by the Spaniards in the sixteenth century. There is also a species of alfalfa with yellow blossoms that is indigenous to the country and different from the European variety, but with none of its advantages, and is not cultivated. The extremes for the cultivation of alfalfa in Ecuador are between 1,600 and 3,200 meters (meter—39.37 inches) above sea level. Outside of these limits the production is joined either by an excess or want of heat. The lands lying between the two Cordilleras, at an elevation of from 2,600 to 2,700 meters, of deep sandy soil and volcanic origin, are best suited for its cultivation. The average temperature at this elevation is 15 degrees C.

There are two varieties of alfalfa—one with green or carmine shoots and the other with violet shoots. The latter is more tender and juicy, with the fibrous system more developed; unfortunately, it requires very fertile soil and produces but little seed. Sometimes the seed is sown broadcast in the field, but the most usual manner is to transplant the shoots in lines or furrows to facilitate irrigation. After each crop is cut the soil at the roots of the plant is loosened and the field is irrigated. The annual cost of cultivating alfalfa is from $8 to $15 (United States currency) per hectare. In rich soil the yield is enormous, sometimes reaching 120,000 pounds per hectare (hectare—2.471 acres) per year. The normal yield is 80,000 pounds. In the table lands the alfalfa gives from five to seven crops yearly. In the very high altitudes, of 2,800 meters or more, it scarcely gives three crops per year. As there is no winter in Ecuador, the alfalfa is always fresh and vigorous, and for that reason it is not made into hay. It has no enemies, and the duration of an alfalfa field in good land is from 12 to 15 years.

CELEBRATE THEIR GOLDEN WEDDING

President and Mrs. Francis M. Lyman Have Been Married Fifty Years Today.

FAMILY PARTY ASSEMBLES.

Both Are 67 Years Old and Strong and Vigorous—Eventful Life of Beloved Pair.

Today, Nov. 18, is the golden wedding anniversary of Prest. and Mrs. Francis M. Lyman, who have been united in happy wedlock for just 50 years. Both Prest. Lyman and his wife are in the best of health, are strong and vigorous, and would, from appearance, bid fair to see another half century of wedded life, were such an age these days vouchsafed to man.

A family party is assembling today at the paternal home at 1014 Third avenue, and the afternoon and evening will be spent in celebration of the auspicious event. Children, grandchildren, and great-grandchildren, to the number of 92 living—14 having passed beyond—have been invited to attend, and of the entire number it is expected about 70 will be able to be present. All the descendants of Prest. and Mrs. Lyman are in the faith of the beloved head of the family and all come with messages of love and esteem for the worthy couple who have weathered life's storm together for 50 years—the half of a century.

MARRIED IN SAN BERNARDINO.

Both President Lyman and his wife, Rhoda A. Lyman, are 67 years of age. They were married at San Bernardino, Cal., when they were 17 years old in the winter of 1857. It was the time of the "move" from California, and with other settlers they came to Utah, settling first in Cedar City. From there they went to Beaver, and from there to Farmington. At that time President Lyman was called on his first mission, and his wife returned to Beaver during the two and a half years absence in Europe. Elder Lyman was then only 20 years old, and left on his mission without purse or scrip—working his way over and back.

CALLED TO APOSTLESHIP.

President and Mrs. Lyman then moved to Fillmore, where he was prominent in public affairs for 14 years. From Fillmore he filled his second mission to Europe, and after his return was called to Tooele to preside over the Tooele stake. There he remained until he was calld to the apostleship, and from there he left for Europe to fulfill his third mission—this time as president of the mission.

After spending nearly three years conducting the destinies of the European mission, President Lyman returned home and moved his family to Sal Lake City, where they have resided ever since.

The best wishes for continued long life will be extended to President and Mrs. Lyman by a legion of friends on the attainment of the fiftieth milepost in their wedded life today.

TO LOCATE HERE.

Dr. John W. Higson, brother of Charles Higson of this city, is here with his family from St. Louis. Dr. Higson resided in St. Louis for many years and was prominent there in the medical profession. He has decided to locate in Salt Lake. Dr. Higson is located at 255 East Fourth South street.

APPROVE PRESIDENT'S PLAN.

Salt Lake bankers approve of the president's proposition in the Panama bond matter. They consider the $50,000,000 bonds as likely to prove advantageous in that the banks can take and use them in place of reserve currency, thus releasing that much for recirculation. The $100,000,000 bonds will be likely to prove efficacious in drawing out hoarded currency and setting it back into circulation once more.

LYRIC CHANGES MANAGERS.

Bert. Donnelan, for some time past manager of the Lyric theater, has left that position to engage in other business in this city. B. F. Grant, former manager, will come back to assume his old duties. Mr. Grant has been looking after the welfare of the Utahna in Ogden.

BID FOR CERTIFICATES OF INDEBTEDNESS.

New York, Nov. 18.—A normal bid of 101 for government certificates of indebtedness which are to be issued to relieve the present financial situation, was made on the curb today.

FIRE IN OMAHA.

Omaha, Nov. 18.—At an early hour this morning fire gutted the buildings on Howard street occupied by the Festner Printing Co., Peacock, Seabudo Co., Omaha, Mitten company and Brambiet Engraving company and damaged the building of the Waters Printing Co. The loss on the first four is estimated at $75,000.

FUNERALS BY BOAT.

In the northeastern corner of France, in the Pas-de-Calais department, there is a stretch of country which possesses practically no roads. This region, lying between St. Omer and the Belgian frontier, is traversed in every direction by canals, which serve as a means of communication between the different centers of population. The people use skiffs, not unlike Venetian gondolas, and in these they glide silently to field and market. The village curé makes his round of visits by water, the very horses have to be taken by boat to and from the fields in which they work, and it is no uncommon occurrence for a frisky animal to kick out, overbalance the frail craft, and precipitate its occupants into the water. It is a region of perpetual peace, a country of eternal calm, where the noise of wheeled traffic is unknown, where the motor horn is never heard.

A frequent sight in these narrow waterways is a funeral procession. The coffin is placed on a couple of chairs and is covered with a cloth. The nearest relatives of the deceased sit behind the coffin, friends follow in other boats, and the priest recites his prayers while the little cortege makes its way slowly to the burial place.—Exchange.

BIND YOUR MAGAZINES.

Old Books, Music and Magazines. Put them in strong new covers for preservation. Many records of value can be saved by having them bound. The "News" bindery can do the work in any form at any price.

ARMY DESERTER UNDER ARREST

Sentry Who Allowed Two Prisoners to Escape Landed By Police.

BURBIDGE AND TAYLOR WIN.

Fugitive is Traced from Murray to Salt Lake—Several Shots Fired at Him by Officer.

Saturday afternoon Capt. John B. Burbidge of the police force, and Officer "Jim" Taylor, made an important capture when they placed under arrest a soldier from Fort Douglas named Blakeley. The soldier is now in the guardhouse at the fort, charged with desertion and assisting in the escape of two soldier-prisoners.

Blakeley was a sentry, and several weeks ago was ordered to take two prisoners from the guardhouse to a point on the reservation where certain work was being done. The sentry, as usual, was armed with a rifle and had instructions to shoot if either of the men attempted to escape. The men escaped and Blakeley did not shoot. He went with the erstwhile prisoners.

How Blakely was prevailed upon to join the two men and desert the army is not known, but the fact remains that they left together. Blakeley took his gun with him but what he did with it is also a mystery.

Immediate upon the discovery of the soldier's flight, descriptions of the men were sent out by the authorities at the post, and detectives Shannon and Wilson started to work on the case. Patrolmen were instructed to watch out for Blakeley and his companions, but no trace of them could be secured until a day or two ago when the detectives obtained a clue to the effect that the deserting sentry was at work at the Highland Boy smelter near Murray.

BIRD HAD FLOWN.

Officers went to Murray but the bird had flown. Blakeley had left for Salt Lake and all trace of him was lost until Saturday afternoon late when Shannon and Wilson learned of the man's whereabouts. At the same time Captain Burbidge and Officer Taylor learned that the man had been at Murray and that he was placed under arrest there, but made his escape. The officers at the smelter town fired four shots at the deserter, but he escaped without injury.

OFFICERS DISAPPOINTED.

Saturday afternoon the detectives traced the man to a roominghouse at 176 west Second South street. Burbidge and Taylor made the same discovery. Shannon telephoned to the post to send men down to take charge of Blakeley. The latter had an appointment with a friend and Shannon and Wilson knowing of it, expected to place the deserter under arrest and turn him over to the proper authorities. But Blakeley did not keep the appointment and the detectives were doomed to disappointment.

BURBIDGE LANDS MAN.

In the meantime Captain Burbidge and Officer Taylor went to the roominghouse expecting to find the man in his room. Blakeley was not there. While Taylor went out to look for the fugitive, Burbidge remained in the room. But the captain did not remain long. He had an idea that the man wanted was in the house and started out on a still hunt. Just as Taylor returned, Burbidge found his man in a front room reading a paper.

Blakeley was at once placed under arrest, but strenuously denied his identity. He swore that his name was Wells; admitted he had worked at the Highland Boy, but declared he came to Salt Lake to be treated for an injured foot. In spite of his protestations he was taken to police headquarters and held there until officers from the post arrived.

DOUBT DISPELLED.

He declared to Capt. Burbidge that he was not the man wanted but when he remarked that he would not work for $13 per month and let slip two or three other remarks showing his knowledge of army life, Capt. Burbidge was confident he had the right man. All doubt was dispelled when officers from the fort arrived and identified Blakeley. Even then the man refused to make any statement and declined to tell where his companions were. Blakeley was taken to Fort Douglas and locked up in the guardhouse. In the meantime officers are trying to find the other two deserters.

SEEKS TO ENJOIN CITY.

Mrs. Mary Webber Objects to Having Shade Trees Removed.

The cutting down of shade trees and the changing of established grades on the part of the city were made the grounds for a restraining order, filed in the district court today by Mrs. Mary E. R. Webber.

It is set forth in the complaint that plaintiff now is, and has been for a period of 19 years, the owner of a tract of land partly in plat "H and partly in plat "D," known as No. 131 Second avenue, with a 9¾ rods frontage; that the same improved with a brick residence and surrounded with fruit and shade trees and ornamental shrubs, flowers, lawns, etc., and is the home of plaintiff, her husband and family. That on or about the year 1889, the defendant, by and through the city council, its agents, servants and employes, established the grade of said Second avenue (then Second street) as well as the grade of the sidewalks leading from Canyon road to A street, that the sidewalk grade was fixed at 2 feet 6 inches below the grade of plaintiff's land, and that plaintiff at a large expense built a retaining wall or coping of stone 9¾ rods in length in front of her premises and built two stone pillars and a pier of stone steps, etc. That about 17 years ago the plaintiff planted in front of her premises a row of boxelder trees, 12 in number, and four years of age, and that the said trees are now 20 feet high and 10 inches in diameter.

The complaint then alleges that on the 16th day of November, 1907, the defendant, through its agents and employes, began to dig up, cut down and destroy said trees and threatened to cut down and destroy the remainder of the trees and to change, alter and destroy the grade of the sidewalk by lowering the same between three and four feet below the established grade, and that by so doing the egress and ingress to plaintiff's property will be cut off, etc.

The complainant prays for a temporary restraining order pending a determination of the cause and that upon a final hearing the defendant be perpetually restrained from molesting the trees or changing the grade.

Moyle and VanCott are attorneys for Mrs. Webber. The plaintiff is the wife of Colonel Thomas G. Webber, superintendent of Z. C. M. I.

HEALTH BOARD ISSUES WARNING

Citizens of Salt Lake Must Observe Ordinance on Contagious Diseases.

EXPLAINS LAW THOROUGHLY.

Ignorance Can Get No One Immunity From Prosecution When Rules Are Violated.

So many cases of contagious diseases are existing in the city at the present time, especially measles, often considered of little serious consequence, that the board of health has deemed it advisable to call to the minds of the public the laws and regulations pertaining to such matters. The secretary of the board today issued a word of warning, directing attention to the ordinance covering such matters.

WHAT LAW SAYS.

This, among other things, provides for proper disinfection; quarantine, etc., during and after all infectious and contagious diseases. It says: "It shall be the duty of every physician or other person caring for the sick in Salt Lake City, and every person having knowledge of the existence of any contagious or infectious disease to make a report of the existence of such diseases to the board of health, on forms to be furnished by said board, within five (5) hours after such physician or other person becomes aware of the existence of any case of scarlet fever, smallpox, diphtheria, bubonic plague, epidemic cerebro-spinal meningitis, whooping cough, typhoid fever, measles, chicken pox or any acute contagious eruptive disease in his or her charge, or within his or her knowledge; additional cases occurring in the same house shall be reported in the same manner as the first case.

Provided, that if the existence of such disease be discovered after five (5) o'clock p. m., or before eight (8) o'clock a. m., or on a legal holiday, it shall be reported as soon as may be, but not later than 12 o'clock noon next thereafter.

REGARDING SIGNS.

Rule 4 of the same ordinance states that signs 8x12 inches and carrying letters at least 3 inches tall are to be placed near or on the front entrance of any home or building containing cases of infectious diseases. Persons are also prohibited from leaving the premises after the discovery of a disease until after the quarantine has been raised. It is explained that any violations of these rulings are unlawful acts and to protect the health of the community strict measures are to be taken with those indifferent or careless in regard to the provisions of the ordinance and ignorance of the law will not be accepted as a reason for immunity from punishment.

QUARANTINE RULE.

There seems to be some misunderstanding relative to the quarantine rules, governing measles. The law provides that children from a home in which a case of measles exists cannot go back to school until that case of measles has fully recovered and all danger of contagion has passed.

All persons having knowledge of the existence of this disease, where no placard is displayed, will confer a favor upon the board of health by telephoning to us (both 'phones 454), when the department will be pleased to take the necessary steps.

Cheapest accident insurance—Dr. Thomas' Electric Oil. Stops the pain and heals the wound. All druggists sell it.

LATE LOCALS.

Bank Clearings—Today's local bank clearings amounted to $711,359.67 as against $1,810,738.96 for the same day last year.

Funeral of Mrs. Trent—The funeral of Mrs. S. V. Trent was held at 2:30 p. m. today, from the residence, 963 east Brigham street, with interment at Mt. Olivet cemetery. Rev. E. I. Goshen conducted the service.

Rev. Merritt Here—Rev. W. C. Merritt, representing the Sunday School union of the United atStes, is in the city for a week, after a tour through the state. He attended this morning's meeting of the Ministerial association, and will preach in two of the Presbyterian churches next Sunday. He is a Yale '79, and Andover Theological seminary '82 graduate.

COAL COMPANY FORMED.

Branch Railroad Included in Mining Property of New Ogden Concern.

The Wyoming Coal company, with principal place of business at Ogden, filed articles of incorporation with the secretary of State Tingey today. The following persons are designated as officers: P. C. Kiddle, president; Adam Patterson, vice president; John Pingree, secretary and treasurer; L. R. Eccles and E. S. Rolapp, directors. Certain lands in Sweetwater county, Wyoming, with a branch railroad and other improvements, are described as being the property of the company, and the purpose of the corporation is the work of coal mining in general. The capitalization is $100,000, divided into 1,000 shares, of the par value of $100 each.

NOTICE OF ASSESSMENT NO. 7.

The Lakeside Mining Company. Principal place of business at Salt Lake City, Utah. Notice is hereby given that at a meeting of the directors, held on the 8th of November, 1907, an assessment of one-half of one per cent per share (½ of 1 cent), being assessment No. 7, was duly levied on the capital stock of the corporation, payable immediately to Utah National Bank, Salt Lake City, Utah. Any stock upon which this assessment may remain unpaid on Dec. 17, 1907, will be delinquent and advertised for sale at public auction, and unless payment is made before, will be sold on Jan. 15, 1908, at 3 p. m., at 30 Main street, to pay the delinquent assessment, together with the cost of advertising and expense of sale.

THEO TORIASON,
Secretary.

First Publication, Nov. 18, 1907.

WANTED.

TO RENT OR BUY ORGAN. APPLY John Feter, 124 South 8th West St.

CARD OF THANKS.

Mr. and Mrs. W. H. Hill and family, desire to express their appreciation for the kindness of neighbors and friends, and in particular, the employes of the Troy Steam Laundry, extended to them during the illness and death of their Foster child, little Ruth Olsen.

SUGAR AT A PRODUCER OF ENERGY.

The editor of La Sucrerie Indigene et Coloniale, M. Emile Lesler, contributes a thoughtful article to his publication of Aug. 13 upon the food value of sugar, from which we quote the following interesting extracts:

Human and animal alimentation becomes more and more an exact science under the control of stricter rules and more severe laws. Numerous practical experiments have been conducted in the last 20 years upon the feeding of animals, giving them alimentary matter possessing the highest energy for a given expense.

Along these lines the General Coach company of Paris has, since 1899, studied thoroughly the method of rational substitutes based upon the nutritive value of the foods. These experiments, executed by M. Grandeau, have shown as explained in communications to the last international congress of alimentary hygiene, the important role of sugar. Products—raw sugar, mixed successively with hay, with grain or with nitrogenous foods (maltose, granules, dried meat, molasses mixed with meal, grass straw, skins of grapes, dry cossettes of beets). But the rational feeding of horses by the "Compagnie Generale" takes account of the cost of foodstuffs, and one may be sure that with the actual, unhappily very low, market price of sugar the preference will be given to this food. For the rest all the experiments made at the laboratory in the researches of this company have confirmed "the general tendency to increase in the ration of horses the place of hydro-carbons in the proportion in which their employment grows more intensive. This is precisely the important result demonstrated by laboratory studies. These studies have, in effect, fully confirmed the announcement of Messrs. Grandeau and Leclerc made in 1882 that azoteal matter is not the element that generates mechanical power." Other important points have also been brought to light, for instance: "The economic role played by starchy substances and particularly those of molasses and sugar rations." In short a new experimental proof has been furnished of the role of sugar and molasses as producers of energy.

The beautiful experiments of M. Grandeau have definitely established the energy importance of sugar. New confirmations of this fact have been given by M. Lefevre, associate of the university, who was able to support the enormous fatigues of mountain climbing upon a milk and vegetable diet containing 250 grains of sugar to 3,700 grains of food, of which 1,200 grains was milk, the rest consisting of cheese and fruit. The total calorific power of these foods was 6,600 calories, of which 1,000 came from sugar. The necessary liquid was exclusively furnished by water, 5 to 6 liters, a fact that was certainly not intended to lessen the sale of wine.

Among the comparative experiments recently made to determine the energy value of sugar, it is necessary to cite those of Rubner and Atwater. These biologists have found that among fats which evolve the greatest quantity of energy (their caloric value is 9.3 calories—Rubner, and 8.93 calories—Atwater), the hydrates of carbon have respectively 4.1 (Rubner), and 4.3 (Atwater). These figures practically agree. If you would set the table with dynamic equivalents, that is with foods of which one weight may be substituted for another weight to furnish the organism the same quantity of energy, you find that 100 grains animal fat corresponds to 235 grains sugar, to 235 grains meat, to 228 grains starchy food, to 225 grain glucose, to 214 grains casein. But these absolute figures do not give the qualitative comparison of these different foods; they take into acount only the numerical equivalents.

M. Chauveau has found that the working muscle consumes nothing but glucose or the glycogene borne in the circulatory flood. Hence the energy value of a food ought not to be measured by its caloric power, that is to say, by the number of calories produced by its combustion in a calorimeter, but by its product of glucose. And here the saccharine and starchy materials take the first rank. Chauveau has calculated the glucose equivalents borne by 100 grains of fat and that may be compared with the dynamic equivalents cited by Rubner above: Fat, 100 grains corresponds to 153 grains sugar, 161 grain glucose, 146 grains starch.

Lefevre has tried to reconcile the two slightly divergent theories; he has easily reached the conclusion that a working organism which receives fat transforms this fat into glucose in absorbing 324 calories per 100 gr. of fat and in forming 161 gr. of glucose. This quantity of glucose will give 480 calories for combustion in the muscle and there will remain 120 calories for working energy; total, 934 calories. If you give the organism glucose exclusively all the calories will pass into work, since there will be no preceding transformation, and Lefevre concludes that fat is a source of heat and sugar a source of energy.

Other conclusions may be drawn from Lefevre's work, in relation to digestibility, that is to say, the digestive utilization of various foods. Among these sugar takes the first rank (100 per cent), then come, equal or superior to 98 per cent: White bread, rice, "pates" potato soup. Eggs and meats occupy respectively, sixth and seventh rank, milk the eighth.

All these conclusions are very interesting; they determine in an absolutely scientific manner the basis of alimentation in general, and the broad role of sugar. A practical conclusion that cannot but give excellent results if taken into account in the rations of men and horses in the army. There the old ways rule always and very often men and animals are fed not sufficiently, at least in a manner little hygienic. Whoever has dined at the "ordinary" will not deny this.—Translated for the American Sugar Industry and Beet Sugar Gazette.

R. E. Evans, Florist, 56 S. Main St. Floral Designs a Specialty. 'Phon 561.

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JOSEPH SMITH Monument

An interesting book containing a full account of the trip of the Centennial Memorial Party to Vermont and the dedication of the Monument.

What it Contains.

Descriptions and fine illustrations of the old Smith farm in Sharon, Vermont, the Monument and the Memorial Cottage, with a history of the farm. Its purchase and vivid account of the building of the Monument, the difficulties overcome, and other points of interest. Also an account of the visit of the Memorial Party to the Hill Cumorah, the Sacred Grove, Palmyra and other places of interest to the Latter-day Saints. Illustrated with a number of valuable cuts taken from original and valuable photographs.

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