

turns control over to the state, as pro-vided in the irrigation act, the state bureau will be thoroughly organized, possessed of all the data, information and plans necessary to go on with the work of administration, and even of construction if any is necessary. Mr. Newlands urged that similar legislation on the part of other states would bring about the spirit of co-operation so nec-essary to successfully inaugurate great projects within their boundaries.

## GO UP THE CANYON. Delegates View Model Irrigation Exhibit on the Way.

(Special to the "News.")

Ogden, Sept. 17 .- One of the most picturesque and interesting scenes in connection with the Irrigation congress took place this afternoon when scores of wagons and carriages from all parts of Weber county gathered around the city hall square and were filled to their utwart with delegator when the score utmost with delegates who, at 1:30 n , left on their trip to Ogden canyon. e procession thus formed was over two miles in length and still there were some who could not seeure accommoda-tions to make the trip. Arriving at the State School for the Deaf and Blind, the delegates alighted to inspect the model irrigation exhibit, every feature of which was explained to them by State Engineer Doremus, to the great delight and intense satisfaction of the visitors. Mr. Doremus, Senator David McKay, Supt. Driggs, Mr. Hickenlooper and others responsible for the exhibit were heartily congratulated for the practical lesson in irrigation presented The delegates then resumed their jour ney up the canyon, where they wil view the proposed reservoir site and be photographed in a group.

### LAST NIGHT'S CONCERT.

### Fine Musical Program Delights Delegated to Congress.

### (Special to the "News.")

Ogden, Sept. 17.—A musical treat that was greatly appreciated by the dele-gates to the Irrigation congress was given last evening at the Ogden Taber-nacle by some of the leading artists in the state.

The program was commenced by the Tabernacle choir singing with volume

Two plano and violin duets by Prof. John J. McClellan and George E. Skel-ton were rendered in a most artistic manner, calling forth rounds of applause 'If Thou Didst Love Me" and Lull-

aby," two very beautiful contraito so-los, were sang by Mrs. Bessie Dean Al-lison in an effective manner.

'Inflaunnaties'' was sung by choir, Miss Luella Ferrin singing the

Prof. Squire Coop rendered in a very artistic and effective manner two piano

Miss Luella Ferrin, who for the last time under the name of Miss Ferrin, appeared before the public, sang most beautifully "Summer" and "Love's Rapture." Miss Ferrin's voice was clear and with ease she sang the high regis-Miss Ferrin, who will become the of John Sharp of Salt Lake Friday

wife of John Sharp of Salt Lake Friday will leave with her husband for New York the evening of the wedding. Messrs. Anderson, Tout, Ferrin and Tout in their usual pleasing manner sang a choice selection, "Spring Time" and "The Soldiers' Chorus" were ren-

dered by the choir. Prof. Joseph Ballantyne was musical director The tabernacle was crowded.

## DROPS OF WATER.

The El Paso delegation and the fam-ous Mexican band have made arrange-ments to go to Salt Lake tomorrow. where they will be royally entertained.

There is a sentiment among the delegates to re-elect Senator W. A. Clark,

ame terms as the original one, but was made out to Goslen and not to the parinership. It is charged that Ed-wards had an interest in the new op-tion, but that plaintiff was not considtion, but that plaintiff was not consid-ered in the transaction at all. The property was sold to McCaffery, it is al-leged, for \$30,000 and 150,000 shares of the stock of the Grand Deposit com-pany, which was incorporated for the

purpose of operating the claims. It is alleged that \$10,000 of the pur-chase price and 20,000 shares of the stock have been paid over to defend-ants Goslen and Edwards, but they ants Goslen and Edwards, but they have refused to give plaintiff any part of the same, except the sum of \$500 and 10,000 shares of the stock, which was given him for the purpose of prevent-ing him from bringing an action for his original interest in the profits of the partnership, so he asks that they be compelled to account to him for the re-mainder of the profits and that a re-straining order be issued to prevent the transfer of the remainder of the stock, which is now in secrow in McCornick which is now in escrow in McCornick & Co.'s bank until such accounting is

### POWER OF JUSTICES.

#### Can it be Transferred to Constable Dur ing His Absence?

A motion to dismiss the appeal in the case of G. W. Speigel vs. J. A. Fritsch, which was filed in the district court yesterday, raises the point as to the right of a justice of the pcace to even temporarily transfer his ministerial power to an attache of his court. The action was brouhgt in Justice Clark's court and on July 22, judgment was en-tered in favor of plaintiff. During Jus-tice Clark's absence in San Francisco, defendant filed a notice of appeal with the constable of Justice Clark's court, who entered the same of record in the docket of the court. Attorney D. S. A motion to dismiss the appeal in the ase of G. W. Speigel vs. J. A. Fritsch, docket of the court. Attorney D. S. Truman, in his motion to dismiss the appeal, contends that Justice Clark cannot transfer his ministerial powers to an attache of the court or to any other person. made

### Wife Charges Desertion.

# Hattie Afford today filed suit for di in the district court against Wal ford on the grounds of desertion ter Afford on the grounds of desertion and failure to support. They were mar-ried at Denver, Colo. on Oct. 16, 1897, and it is a seed that defendant deserted plaintiff on April 9, 1862, and has failed to provide for her ever since August, 1899. Flaintiff asks for \$50 as attor-ney's fees and coats of suit and that her maiden name, Hattle White, be re-stored to her. stored to her.

### NEW CASES OF TYPHOID.

Four cases of typhold fever were re-ported to the board of health today, making a total of 85 cases reported so far this month. The cases reported today are: Essle Donelson, aged 26, rear 845 east Fourth South; Harriet Colby, aged 20, 627 Second street; Leona Mor-ris, 451 east Sixth South; Nellie Shipp, aged 14, 713 Second street.





your confidence. Purely vegetable, they can be taken by children or delicate women. Price, 25c, at all medicine dealers or by mail of C. I. Hoop & Co., Lowell, Mass, PERCENTAGE OF LOSS.

PERCENTAGE OF LOSS, "Canals carrying 100 cubic feet per sec-media or more lose .38 per cent per mile. "Canals carrying from 50 to 100 cubic feet per second lose 1.46 per cent per mile. "Canals carrying from 25 to 50 cubic feet per second lose 5.22 per cent per mile. "Canals carrying less than 25 cubic feet per second lose 7.48 per cent per mile. "These figures show that the percentages for loss from small canals is more than seven times that from large canals. Great which is the seven of smill ones. "Varicus experiments have been made in lining ditches to prevent loss, and the department is collecting all available in-formation on this subject. The problem is not to find a means of conveying water without loss, but to find a cheap means of doing this. Where the crops raised will justify the expense is too heavy for ordinary crops, or at least has been con-sidered so. As the demand for water be-toped, but the species that have hear or sidered so. As the demand for water be-top did seven species will be in-sidered so. As the demand for water be-top reducter, larger expense will be in-tiones greater, larger expense will be in-tiones greater, larger expense will be in-the solution on this problem. Its solution means, as has been show, an addition of the last one-third to the area which can be area which and a seven and be area which can be area which to the area which can be area which area. be reclaimed.

### LOSSES FROM LATERALS.

LOSSES FROM LATERALS. "The losses from laterals have been shown to be nearly if not quite as great as those from ditches. We are studying methods of constructing laterals and of making them more economical carriers of water. All the field agents of the irriga-tion investigations have been instructed to study the practise of the best farmers in the sections covered by them. The re-ports from all these agents will be digest-ed and combined and published in the form of a farmers' bulletin. Experiments looking to the same end are being carried on. As with canals, the question of sav-ing the losses from laterals is a question of expense, and what we are looking for is some cheap check on these losses, the saving of which means the addition of another third to the reclaimed area. SAVING IN USE.

# SAVING IN USE.

another third to the reclaimed area. SAVING IN USE. "Great as are the possibilities of saving by stopping the losses from canais and laterals, they are not so great as the pos-sibilities of saving in use. Our measure-ments of the quantities netually used by farmers show that some use from five to ten times as much water as others who are raising the same crops under similar conditions, and who secure equally good if not better returns. There is no way of telling what proportion of farmers use too much water, but the measurements that on an average farmers use at least twice as much water as is necessary un-der present conditions. If this saving can be made, it means a doubling of the area which can be reclaimed, and that with little expense to anyone, since most canais cover much mater. The department can, of course, do nothing to enforce economy in use. It can only point out the fact that or an average farmers use the way of that equally good returns from the land now irrigated can be secured with half the water. In the hope that self-interest will induce farmers to use the smaller quantities. One method has, however, here suggested by our investigations. That is, to base charges for water on the quantities used rather than on the areage irrigated. A report from New output do that the quantities they waited. A supply do the quantities they received used 11 per cent less water than others of adding to the quantities received used 21 per cent less what they waited. A supplic the same can alw ho paid a flat rate per and for the quantities received used 21 per cent less than those paying the areage rate-an average for the two sec-tions of 25 per cent. A large mighting the areage rate-an average for the two sec-tions of 25 per cent. A large on point y far available. But most farmers use these who paid for the quantities received used this means of inducing economy is available. But most farmers use these therefulness in showing them the belief intertions of some kind, and whenever they available. But most fa

# USE MORE THAN NECESSARY.

"The estimate that farmers are using "The estimate that farmers are using twice as much water as is necessary is based on the measurements previously referred to, which show that some farm-ers use from five to ten times as much as others. But we are not stopping with this study of what is being done. We are carrying on experiments to get at the actual necessities of different crops under different conditions. To establish the minimum quantities which must be sup-

"This great increase in area is possible through the saving of what is now wastthrough the saving of what is now wast-ed. But the damage resulting from losses of water from canals and from use of too much water is not limited to a reduction in the area reclaimed. The surplus water is actually reducing the area now farmed by swamping fortile lands and bringing to the surface such quantities of alkili as to kill all useful vegetation. We are studying means of relieving these condi-tions both in this country and in the older countries where the damage has been of long standing, and are making experi-ments along the same line in a numbe; of places throughout the west. We have also employed a drainage engineer whose entire time is occupied in advising com-munities as to methods and plans for re-lieving wet and alkali lands. There is a peculiar reason why this work should be done by the government. The water which ruins a man's farm does not, as a rule, come from lands lying higher than his own, so that he is in a measure help-less to prevent the injury. No improve-ment in his own practise can ward off the damage. For this reason this work belongs especially to the public, just as does the enforcement of quarantine regu-lations. what is now wast-But the damage resulting from losses

WORK OF SURPLUS WATER.

"The work of the agricultural depart-"The work of the agricultural depart-ment has so far been discussed from the one standpoint of increasing the area re-claimed. But this is not the most im-portant phase of our work. The main ob-ject of the department in all branches of its work is to promote the prosperity of our agriculural population, and the first object in our irrigation work is the wel-fare of those using water.

### RIGHTS OF FARMERS.

RIGHTS OF FARMERS. "The rights and privileges of farmers with regard to the use of water are very largely controlled by the laws of the sev-eral states, hence we are studying those laws, not from the stundpoint of the law-yer or the courts, whose duty it is ': de-termine exactly what the law is, largely regardless of its consequences, but from the standpoint of the farmers, to see whether the privileges accorded to them and the limitations placed upon them tend to promote their prosperity; and from the standpoint of the nation, to determine whether the laws as they are promoto the largest and best use of our water supply. If they fall in either of these objects, it is our work to find the cause and recommend the changes which ara needed.

### LOCAL CUSTOMS.

"But not all the limitations upon the ise of water by farmers are contained in the laws. Farmers are united either as urchasers of rights from canal companies, and they are controlled fully as much by the terms of their water right contracts or the articles of incorporation and the yelaws of their slock companies, as they or the articles of incorporation and the by-laws of their stock companies, as they are by the laws. There are also local cus-toms with all the force of law. These rules, whether prescribed by contracts, by by-laws, or by custom, have a very marked influence on the wellbeing of the farmers who are subject to them. We are studying these institutions to determine which are good, and therefore both laws and institutions are very largely beyond the influence of the individual farmer. He has no choice but to comply with their requirements. We, therefore, owe it to him to make these conditions what they should be. "All the practical details of irrigation

"All the practical details of irrigation farming are also being studied for the purpose of giving to farm-ers the benefits of the experience of all others. These studies include methods of preparing land for irrigation; methods of locating and constructing lat-erals, and of making the small structures needed in applying water to crops. "We are studying methods of applying water to crops to determine which are the most economical of labor and water, which produce the best results in erops, and in the condition of the soil.

WHAT EXPERIMENTS SHOW.

WHAT EXPERIMENTS SHOW. "Experiments in this country and else-where have shown that the stage of the growth of the plant it which water is applied has a great deal to do with the crops produced. The experiments show that water applied to grain crops at cer-tain stages tend to make them produce a larger relative quantity of straw than they otherwise would; water applied at other stages tends to increase the produc-tion of seed. Water applied to root crops at certain stages makes them run to tops, and at other stages it goes to enlarge the roots. The time of applying water to beets affects their sugar content, and wa-ter applied to potatoes at the wrong time may ruin the crop. All these things are

OTHER EXPERIMENTS. "We are carrying on another series of frypte of great value to the sandy areas prove of great value to the sandy areas of the second the monstrated. These lands to find the great lakes, although this have of hitle use, as there was not water water alone produced the use of both the application of both gave the best re-perimental farm was \$6.70 per acre, and the net gain from irrigation on the ex-perimental farm was \$6.70 per acre, and to not gain from irrigation on the ex-perimental farm was \$6.70 per acre, and to not gain from irrigation on the ex-perimental farm was \$6.70 per acre, and to not gain from irrigation on the ex-perimental farm was \$6.70 per acre, and to not gain from irrigation on the ex-perimental farm was \$6.70 per acre, and to not gain from irrigation on the ex-perimental farm was \$6.70 per acre, and to not gain from irrigation on the ex-perimental farm was \$6.70 per acre, and to not be increase in yield is not of these sandy lands is profitable, but water supply. These experiments are proved of crops to justify any coucher provide of use to justify any coucher provide to increase of the barren sandy lands whith have been cleared of timber in minnesota, Wisconsin and Michigan. But intersation as a possible means of re-laming these lands.

### WHAT STARTED EXPERIMENTS.

"The great drought of 1901 led to the be-ginning of experiments in irrigation in Missouri by the agricultural department. The experiments were begun too late in the summer of 1901 to affect the crops of that year, but the crops irrigated in the late summer of 1901 showed the results of the use of water on the crops of the naxi season. The most noticeable results were in strawberries. Several varieties were in strawberries. Several varieties were inder a large growth in the fall of that year. The spring of 1902 was so wet that irrigated late in 1901 so that the plants made a large growth in the fall of that year. The spring of 1902 was so wet that irrigated he year before gave yields vary-ing from 161 per cent to 8/4 per cent above the yields of plants of the same varieties which were not irrigated, the value of the increased yield of some varieties being as high as \$440 per acre. Asparagus treated in the same way gave increased yield of 25 per cent yield, worth \$73.35 per acre. The irrigation of nursery stock enabled nurserymen to put large healthy trees on the market in one year, instead of carry-ing them two years. These experiments in Missouri have clearly demonstrated the value of firigation as an insurance against drought in the humid parts of our country. "The great drought of 1991 led to the beountry.

### ALKALINE LANDS.

"It is estimated that about 600,000 acres of land at present under Irrigation in the western United States are lying idle sole-ly because they contain too much aikali to permit paying crops being produced. Whenever practicable, it is advisable to reclaim land of this character by wash-ing and draimage. Nevertheless, in much of this land and that which may be ir-rigated in the future, the establishment of a proper drainage system could not be a proper drainage system could not be profitably undertaken under existing con-ditions. The question is, can anything else be done with such land?

### CROPS FOR ALKALI SOILS.

<text><text><text><text><text>

with and drainage is not practicable."

And Captures G. W. Gates. Deputy Sheriff Joe Burbidge did a motor cycle "stunt" up State street yesterday afternoon and captured G. W. Gates, who was wanted on the charge

Deputy Sheriff Burbidge Mounts a Wheel

Yankee Con. Some Weaker-The Sales

Posted.

This afternoon's session of the min-

ing exchange was devoid of features. Prices ran about the same as during

the early calls of the day. The sales

Lower Mammoth, 100 at 71, s 30; 309

t 71. May Day, 2,500 at 914. Star Con., 300 at 30. Martha Washington, 2,000 at 2. New York, 800 at 26; 100 at  $261_{2}$ ; 10)

Carisa, 700 at 15¼, s 5. Daly-West, 5 at 40.10.

at 271/2. Victor Con., 500 at 131/2.

Thursday, Sept. 17, 1903

Illinois Central

Anadian Pacific Dicago & Alton preferred Dicago & Alton preferred Dicago & Northwestern Dicago & Northwestern pfd... Dolorado Southern Denver & Rio Grande Denver & Rio Grande preferred. Oriz

MISCELLANEOUS.

BOSTON STOCK MARKET.

Closing quotations today as re-

40 25% 19%

of obtaining money under false pretenses and who was making a rapid drive through town in a wagon to escape the officers of the law. Gates, it is charged, sold a "leaded" horse to George Mueller, proprietor of the Royal bakery, on Aug. 21 and since that time he has been keeping out of the way of the officers pretty well, being in Cache valley most of the time.

Yesterday afternoon Deputy Bur-bidge was in a second hand store on State street near Fourth South and had Yankee Con., 200 at 59; 200 at 58; 100 at 58%; 700 at 59%. NEW YORK CLOSING STOCKS Atchison preferred Baltimore & Ohio Canadian Pacific

State street near Fourth South and had just taken possession of the motor cycle, which it is claimed Eugene Hol-way had purloined from Hardy Downing and stored at the second-hand establishment, when he saw Gates' driving rapidly towards Third South. The deputy without hes-itation mounted the motor and turned on the power. He was soon speeding up the street in hot pursuit. He over-took Gates near the Knutsford hotel and placed him under arrest. The prisoner was taken before Judge Diehil and released upon his own recogniz-ance. Burbidge is now thinking seri-ously of asking the sheriff to purchase a motor to use in case of such emermotor to use in case of such emer gencies in overtaking fleeing criminals,

# LATE LOCALS.

Illinois Central Louisville & Nashville Manhattan L. Metropolitan Street Railway Mexican Central Missouri Pacific New York Central Pennsylvania Reak Island Rock Island Rock Island preferred St. Paul Southern Pacific Southern Railway Union Pacific preferred Wabash The National Bakery of Murray has been handed over to its creditors. The liabilities are placed at \$4,000, \$2,000 of which is due the trade, and the rest due on notes.

## Loss of Appetite.

Wabash Wisconsin Central ..... Is commonly gradual; one dish after another is set asode till few remain. These are not eaten with much relish. MISCELLANEOUS. Amalgamaled Copper American Car & Foundry American Locomotive American Smelting & Refining Am. Smelting & Refining fd. Brooklyn Rapid Transit Colorado Fuel & Iron International Paper National Biscuit National Lead Northern Securities Pacific Mail People's Gas Pressed Steel Car Pollman Palace Car Suadard Oil Suagar nd are often so light as not to afford much nourishment. Loss of appetite is one of the first in-dications that the system is running down, and there is nothing else so good for it as Hood's Sarsaparilla-the

best of all tonics. Accept no substitute for Hood's.



## Handard On Sugar United States Steel preferred.... Western Uniten commodations in this city has induced Mr. J. S. Bransford to enlarge the orig-nal size of the Emery-Holmes apartment house, now being erected at Eagle late, by the addition of a sixth story, hus adding eight more flats to the cafourth story is now being built, and this will be repeated for the fifth story, and

while the original top floor will be car-ried out as originally intended. The The cost of the improvement will be be-tween \$8,000 and \$10,000, and make the great structure more than ever one of

the finest of its kind in the west. The Husler flour mills have just started up again, after a six weeks' shut down, in which time \$6,000 worth of mprovements have been made.

include the addition of square sifters and additional rolls, so that the mills can now turn out 250 barrels daily-

double their former capacity, Today's local bank clearings amounted to \$477,702.64, as against \$546,095.49 for the same day last year.

The Presidential Gold Mining company of this city filed its articles of in-corporation in the county clerk's office today. Its capital stock is \$75,000, ditoday. Its capital stock is show, di-vided into 300,000 shares of the par val-ue of 25 cents each. Fisher S. Harris is president; E. D. Crowther, vice pres-ident; Morris Sommer, secretary; H. M. Crowther, treasurer. The company owns a group of six claims located in the Uintah district, Summit county,

HECKLER.-At Silver City, Utah, Maria, wife of A. F. Heckler; aged 41 years. Remains will arrive Friday morning at 10 o'clock over the Rio Grande Westorn rallroad. Services will be held at O'Don-neil's funeral chapel at 1 o'clock. Inter-ment at Mt. Olivet connetery. Friends in-vited. vited. 

PARK.-Of general debility, at his home in Granger, Sopt. 15, 1908, John D. Park. Pioneer of 1847. Aged 71 years, 2 months, 26 days

28 days, Funeral Sunday, Sept. 29, at 11:20, in Granger meetinghouse. Friends invited.

ported by Hudson & Sons Co., brokers, were: Bid. Asked. 
 Amalgamated
 44%
 45

 Con. Mercur
 15-16
 1%

 Daly West
 29½
 40

 Utah
 25½
 25½
United States ..... 19 DIED.