THE FUTURE OF AMERICAN POTASH Continued from Page 3)

Railroad. It operates on the lake, and principally for the production of potash. The Solway Potash Company has a plant on Solduro Marsh, an arm of Great Salt Lake about 100 miles west of Salt Lake City, on the Western Pacific Railroad, and produces from sich belavoration of the large amount of high grade rock, the accessibility and the cheapness of fuel and reagents.

Potash from Silicate Rocks. duces from rich brines occurring at various depths below the compact surface layers. Production began here in 1917. The processes have been kept more or less secret, but it is thought that they are about the same as those used in Germany, because the brines are similar to the artificial brines of the German potash works.

No reliable estimate has been made of the potash resources of the Salt Lake Basin. It is definitely known that there is a very large quantity of brine, and that this area may become a source of extensive operation and production. Some of the plants operating tdoay use their own production, principally for chemical purposes, hence there is no difficulty regarding a market. Production at Searless Lake. The Searless Lake flats contain

principally salts of sodium, potassium and some borax. The extent of the deposit, which is a thick bed of Crystalline salt impregnated with saturated potash-bearnig brine, has been determined by the U. S. Geological survey. It is said that this brine containing 2.5 per cent K20. occupies about 60 per cent of the volume represented by an area of 10,000 acres of a salt body 70 feet deep, making a reserve, according to Gale and Hicks, of 20,000,000 tons

There has been a great deal litigation regarding the holdings Searless Lake, but much of this has been settled and three large companies have gained holdings and come and a small amount of borax. Some will be relatively low.
refined salt has been manufactured. There is a very larger than the American Trona Company tailings on the dumps

built an experimental plant at Sear-less Lake in 1913. This was a failure and a new plant, started in 1915. than 100,000,000 tons of these tailcame into operation in 1916. The
Trona Company constructed thirtyone miles of branch railroad and has
expended, all told, about \$5,000,000
Delaware, Maryland and other Atin potash developments. The Solvay Process Company has operated

supplies of American potash.

Potash from Alunite. -a light pinkish mineral, and a ed. light-colored alunited rock. The mineral, though found at many places in the Rocky Mountains, has been most explored in the vicinity of Marysvale, Utah.

The potash corrent of alunite runs from 6 to 11 per cent K20. This is rendered soluble by calcining, without the use of reagents; potassium sulphate is formed. Careless opera-tion results in the volatization and loss of potash and the formation of

Several companies have promoted the potash resources at Marysvale. A number of filings have been made and a small amount of quarrying or mining has been done on some of them. Several carloads of oar were shipped to Trenton, N. J., for reduction, but the results were unfavor-able. One company has shipped ore to Salt Lake City for reduction and experimentation. A large plant about one and one-half miles south of Marysvale has operated intermittently, producing a product running 12 to 18 per cent potassium sulphate. Much of this output has been shipped to Raleigh, North Carolina. The principal operator in the district is known as the Armour Company, the plant of which is located about seven miles southwest of Marysvale. This company uses alunite mineral, which is quarried high in the mountains and transported by aerial tram and team; the processes are crushing, calcining, leaching, filtering, evaporation and crystallization. The product runs about 97 per cent K2SO4, and the dally production is about 20

to have made plans for the enlargement of its plant. It has done experimental work looking toward the recovery of aluminum from hhe residue formed in the manufacture of potash, but no quantity of commerclay value has been made to date. Potash from Leucite.

There is a vast deposit of leucke in southwestern Wyoming, which has been studied by federal depart-ments and private interests. It runs about 10 per cent K20 and is said carry 197,000,000 tons K20.

The Liberty Potash Company, formed principally of Salt Lake City parties, built an experimental plant at Salt Lake City for reducing potash from the Wyoming leucite. Several thousand dollars were expended in this investigation which preceded the erection of a plant at Green

River costing about \$1,000,000. Mr. T. W. Boyer, Pesident of the Liberty Potash Company, speaking before a recent Senate Committee hearing at Washington, outlined the processes in the treatment of leucite bout as follows; The rock is mined with a steam shovel, ground, mixed with salt and lime reagents, heated in rotary kilns, and the fumes col-lected in a bag house.

River is expected to be quite low. The officers of the company claim that they will be able to compete with the German potash producers within a few years.

The silicates are widely distributed in the mountains and Piedmont areas of the United States. Those from which it is proposed to manufacture potash are loosely classified as feldspar, sericite, green sand, Georgia shales, and mine tailings. The potash content of the silicates varies greatly, running from 3 per cent to about 10 per cent K20. Reduction requires heat and reagents. The principal reagents employed are sand and lime.

Much experimental work has been done, particularly in Georgia and New Jersey, for the recovery of potash from silicates. This has resulted in the securing of options on large holdings of lands to be worked by certain patented processes. One of the promising areas, or groups of areas, for production is in the vicinity of Cartersville, Georgia, where, according to geological reports, the shales are close to the seurface over a large area. These shales are said to carry 8 per cent or more of potash and to be hydrous, making it possible to reduce them with comparative ly small quantities of reagents. A number of companies have options on the richest potash lands of Georgia, where there has been some production, principally of low-grade material. The low grade product is used locally, principally by cotton growers. The higher grades are hauled or shipped longer distances.

Mine tailings, principally in the Rocky Mountain districts, have been extensively studied for the recovery of potash. These tailings, being into operation. The processes in reduction are principally evaporation and crystallization; the brine is evaporated to a point where the sodium salts are removed by precipitation. The remaining liquor is run into crystallizing vats and cooled from which much of the crude potash is obtained. This potash contains 60 to 65 per cent of potassium chloride. 65 per cent of potassium chloride claimed that the cost of production

There is a very large tonnage of tailings on the dumps at copper and gold mines. It is estimated by Mr. Butler that in 1914 there were more

Delaware, Maryland and other Atlantic Coast states. It has been at Searless Lake about one and one half years. Its installation has cost about \$3,000,000. The Pacific Borax 5 to 7 per cent potash. The thickness of the deposits in New Jersey is ness of the deposits that they run tronger than the second terms of the deposits that they run tronger than the second terms of the deposits that they run tronger than the second terms of the deposits that they run tronger than the second terms of the deposits that they run tronger than the second terms of the deposits that they run tronger than the second terms of the deposits that they run tronger than the second terms of the deposits that they run tronger than the second terms of the deposits that they run tronger than the second terms of the deposits that they run tronger than the second terms of the second t found that green sand, or glauconite, The cost of production at Searless these glauconite deposits carry our Lake is relatively low and it is country's largest potash reserves, or Germany, but that it is of conclaimed by those who are acquainted and that they are comparable in the with the situation that the compan- amount of potash with the German with the situation that the companies will be able to compete with German within a few years. It is thought that here is one of the sure thought that here is one of the sure been found. It is, however, almost certain that some practical method Alunke is a hydrous sulphate of will result. A large plant is being potassium and aliminum, carrying erected in New Jersey, but no comsome silica. It occurs in two forms mercial production has been report-

The possibility of producing potash from silicates has passed the experimental stage, and it is believed coal has no desire to know what the that there is a great promise for the peop's of this country are saying at future, especially because much of the production will be in areas re-quiring potash-bearing fertilizer.

Ending of the War and Its Effects. The ending of the war brought dustry. In fact, the market began to break prior to the signing of the water, and boll till dissolved. When Potash accumulated in the ware-houses and few sales were made at any price. The fertilizer companies, who afforded the principal market for American potash, hesitated to buy because many of the sales of fertilizer which they had made were cancelled by farmers who expected the price of farmers to decline.

The potash producers appealed to federal departments for relief. Conferences were held at Washington with the Potash Control Division of the U. S. Department of Agriculture, the War Industries Board, the War Trade Board, and with surveys and bureaus of the Department of the Interior. Secretary Lane, Dr. Manning, and others of the Bureau of Mines to whom was entrusted the administration of the War Materials bill, were ready and willing to assist in every way possible, but it was necessary ta that time to prevent the admission of foreign potash. Finally the Potash Control Board of the Department of Agriculture fixed the price at which potash should be sold in fertilizer. This gave an important advantage to The Armour Company is reported the fertilizer companies, but it have made plans for the enlarge-worked out badly with the potash ent of its plant. It has done ex-producers. There was small buying and a graual decline in the price of potash from \$5.00 per unit to about \$2.50 per unit.

With the decline of prices, the potash plants ceased operation one by one, until practically all of them were closed, whereas if some measure of protection could have been afforded the production could have been afforded the production might have continued at its rapid rate of increase. The situation is now one which demands thoughful consideration from teh national point of view.

Experience during the war definitely proved that under high prices the Just the young man necessity the industry could grow to large proportions. The closing of the war backed by propaganda and the prospect of securing a cheap commodity, practically made bankrupt many of the companies engaged

in the new industry.

Factor Involved in the Conservation of the American Potash Industry. It is evident that this industry should be saved and we believe that it will be done. Much progress has been made in the discovery of resources, in methods of reduction, and in the production of materials neces

The cost of production at Green sary to win the war. The potash is ver is expected to be quite low, needed for use in two leading lines in agriculture and manufactures, and we dare not again rely upon foreign production. There are adequate sup-plies of potash materials, and the in-dustry could go forward in competidustry could go forward in competi-tion with Germany and Alsace if the processes of reduction were less ex-pensive nad if an open market were assured. These things being true, the following points deserve consid-eration in the conservation of the do-

eration in the conservation of the do-mestic potash industry:

1. A low tariff, a subsidy, or some scheme for licensing the importation of foreign potash should be estab-lished at an early date to give pro-tection to the domestic industry dur-ing its formation region. ing its formative period.

2. It should be made sure that the

domestic production is to have an open market not manipulated by the German syndicate or by some other interest. Prior to the war, German bought it for use in this country are and hens at \$25 per dozen if taken said to have been required to make by August 25th. Order from "Ad" contracts which prevented them from if cant' fill order money will be rebuying from other sources. What-turned. Send draft or post office ever scheme is evolved to give relief money order. Mrs. B. A. White, touching the market situation, it Hemingford, Nebr. should protect the American produc

3. The producers of American potash should further perfect their processes, and decrease production costs with the view of being able to compete with the foreign product after i period of three or four years when LOST.—Tuesday on Hemingford-Althe United States will have reached a state of independence.

4. Some means should be found to

prevent propaganda harmful to the American potash industry.

5. The potash producers should plan as soon as possible to separate or refine their crude salts into mar-

ketable materials. 6. The Government should reduce freight rates on potash.

7. State and Federal departments should study the use of potash especially for fedtilizer, to determine the soil and crop requirements.

8. Potash should not be permitted to be completely controlled by producers. They should be conserved for the general good.

9. The American principle of pro-tection can be extended to the potash industry for more reasons than for most other protected industries. The larger purpose—that of developing American potash for America—

cannot be overlooked. 10. It may be advocated by some cellen that in treaties to be made with can be France (affecting Alsace) and Gerrestricted to afford revenue for France and to enable Germany to pay indemnities. Some interests may camouflage more or less in support of Alsace potash in the belief that Americans will be less opposed to this than to the German product. Let it be understood, however, that will the big problem is not one of Alsace sion serving an important American in-United States during the period requiry to establish the American industry, and the importation should be controlled so as not to hamper domestic development.

Naturally Not.

The "n who raises the price of their firesides.-Atlanta Constitution.

To Improve Paint Work. To put a varnish-like gloss on doors, disaster to the domestic potash in- get half a pound of glue, put it into a saucepan with about a quart of armistice, because of the prospect of the doors are washed, take a clean securing cheap potash from abroad. cloth, dip it in the size, and rub all me way, being sure to go over the foor to insure a smooth surface.

> Tree Trunk Docan't Grow. Tree trunks do not grow in length between the tap root and the lowest branch. Also the tap root when cut off at a special length always remains the same length, for it is but the trunk or body below the soil. Both root and body may branch, or lengthen by nev

> > Our Kind.

Said the facetious feller: "Some day festive cuss is going to get cute, and instead of putting in his will 'I hereby bequeath all my property, real and personal,' will get a posthumous giggle by saying 'real and imaginary."

Read the "Situation PLATTE VALLEY COMMERCIAL Wanted' columns. Mr. Business Man. This column is the ladder of the discontent nine times in ten spells ambition.

your business needs may be appealing to you today.

Take a chance on the ambitious employed.



WANT TO BUY something? Hundreds of people weekly scan these want ad columns looking for what you or others have to offer. Get quick results by advertising in The Herald Waxt Ad department.

FOR SALE-The best built, all modern home in Alliance. 6 rooms, large bath room and pantry. Full basement; round oak furnace; 2 lots close in. Inquire this office or phone Red 186. 36-31-8458

potash was comparatively controlled FOR SALE—Thoroughbred Single in every way and some of those who Comb Rhode Island Red pullets and hens at \$25 per dozen if taken 35-3t-8125

> WANTED-Two girls to assist in millinery department and learn the trade. Nice work at good wages. Inquire at the HARPER DEPARTMENT STORE 8155-tf

> liance road, 36x4 1/2 tire and Cadillac rim. Finder please leave at Lowry & Henry garage, Alliance or Rockey & Son, Hemingford, Nebraska. Reward. 38-213-8156

WANTED-Suite of three or four office rooms. Notify Rufus Jones, secretary Community Club.

WANTED TO BUY-Dwelling house, seven rooms or more. Address, Box 65, Whitman, Nebraska.

WANTED-5 bright, capable Ladies to travel, demonstrate and sell dealers. \$25.00 to \$50.00 per week Railroad fare paid. Write at once. Goodrich Drug Co., Dept. 786, Omaha, Nebraska. 35-4t-8135

38-1t-8107

PIANO FOR SALE

We have stored in a warehouse at Alliance at this time a piano of excellent quality, which if sold at once that in treaties to be made with can be purchased at a positive bar-France (affecting Alsace) and Ger-many, foreign potash should be per-mitted to enter the United States un-by writing to THE DENVER MUSIC 36-6t-8465

OLD CLOTHES WANTED The City Mission is in need of second-hand clothing, esecially men's and shoes. Call phone 696 and we will call for them .- The City Mis-

PIANO FOR SALE

WANTED-Clean cotton rags, at The Herald office. Must be of fair size and clean. Are used in wiping machinery. 28-tf machinery.

FOR SALE-Five room house, modern except heat and full basement. Bargain if taken at once. Inquire of

braska.

GEORGE A. HILLS, Alliance, Ne-32-41-8107

MEN TO SELL GROCERIES EXPERIENCE NOT NECESSARY One of World's largest Grocers, (capital over \$1,000,000) wants ambitious men in your locality to sell direct to consumer nationally known brands of an extensive line of groceries, paints, roofings, lubricating oils, stock foods, etc. Big line, easy sales. Values beat any competition. Earn big money. No experience or capital required. Complete sample outfit and free selling instructions start final three-year Proof, to establish u uuLounug uuesutaubluishuuuuuu claim to the land above described, you, Long established reliable before the Register and Receiver of the United States Land Office, at TON & CO., 352 W. Illinois, St., Alliance, Nebraska, on the Twenty-Chicago, Ill. 38-t-8146 first day of July, 1919.

A FINE POSITION AND A GOOD SALARY WILL BE YOUR REWARD

If you join our classes and acquire in up to date knowledge of Business Methods, Stenography, Banking, Bookkeeping, Secretarial, Civil Service, University Commerce, Accounting Course, or Agriculture and Farm Accounting.

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A PLAYER PIANO

If you are a lover of music, and ex pect to own a piano or a player-piano within the next five years. Dated this 25th day of July, 1919. send us your name and address, and we will return information regarding a fine piano and also a playerpiano we are holding in the vicinity of Alliance, Nebraska. To avoid the expense of storage, handlnig, drayage and freight to Denver, we offer these instruments at a tremendous bargain, and WITHIN REACH OF ANY HOME HOWEVER MODEST ITS PURSE LIMITATION AND ON TERMS THAT MAKE OWNERSHIP A PLEASURE. If you are interested, therefore, write us at once. KNIGHT CAMPBELL MUSIC COM-(Largest in the West), Deiver, Colo. 37-4t-8468

NEW FINANCIAL INSTITUTION Now being organized, desires to secure a few strong representative men in the states of Nebraska and Iowa. Home office Omaha, other offices to be established at Lincoln,

Sloux City and Des Moines. This is an opportunity to get in on the ground floor of what will be the largest institution of its kind in the west. For particulars address Box 831, Alliance, Nebraska.

37-2t-8477 MISCELLANEOUS

MOVE FURNITURE SAFELY We have equipped our dray wagons and auto truck with the lates appliances for moving furniture without marring or scratching or doing damage. Up-to-date wagon pads will be used by us on all movins jobs. JOHN R. SNYDER, Phone 18

Real Estate, Loans and Insurance. F. E. REDDISH, Reddish 15-tf-6727

> No. 1665 NOTICE

CHANGE OF BOUNDARIES BE-TWEEN THE ALLIANCE AND BROKEN BOW LAND DISTRICTS IN THE STATE OF NEBRASKA.

Notice is hereby given that the President of the United States, by Executive Order of April 8, 1919, in accordance with the provisions of Section 2253 of the Revised Statutes of the United States, and by virtue of the authority therein given, directed that:

Township twenty-six north, of ranges 17 to 24 west, inclusive, and townships twenyt-seven to thirty-five north, of ranges seventeen to forty west, inclusive be detached from the Broken Bow land district and attached to and made a part of the Alliance land district in the State of Nebraska and the business and archives pertaining to said lands transferred to the land office at Alliance.

The change of boundaries above indicated will take effect on July 1, 1919, and the Register and Receiver of the land office at Broken Bow, Nebraska, will transact no business pertaining to the lands referred to after

taining to the lands referred to after June 30, 1919.

Given under my hand at the Dis-trict of Columbia this fifth day of May, A. D., 1919.

CLAY TALLMAN, Commissioner of the General Land Office.

LEGAL NOTICE

In the County Court of Box Butte County, Nebraska.

In the Matter of the Estate of Nelile E. Taylor, Deceased. Notice to all persons interested in said estate is hereby given, to pre-sent their claims for adjustment and allowance against said estate, to the County Court of said County, on or before the 28th day of July, 1919, at the hour of 10 o'clock A. M. At which time I will hear and adjust all such claims.

forever barred.

Dated this 21st day of June, 1919. IRA E. TASH, (SEAL) County Judge

L. A. Berry, Atty. June26-4t-8072

NOTICE FOR PUBLICATION. 016763 U. S. Land Office at Alliance, Ne-braska, June 13, 1919.

Notice is hereby given that Mary Burke, one of the heirs of Mary Tler-nan, Deceased, of Alliance, Nebras-ta, who, on May 29th, 1914, made Homestead entry, No. 016763, for Lots 1 ,2, 3 and 4, in Section 4, in Township 23, and SW 14 SW 14 Section 27, SE 1/4 SE 1/4 of Section 28, NE 1/4, E 1/4 SE 1/4, SW 1/4 SE 1/4, E 1/4 SW 1/4, and SW 1/4 SW 1/4 of Section 33, in Township 24, North Range 51 West, of Sixth Principal Meridian has filed notice of intention to make

Claimant names as witnesses: Charles Tierman, George G. Burke, John T. Burke, Alliance, Nebraska; Edward E. Dueker, of Bayard, Ne-

T. J. O'KEEFE,

LEGAL NOTICE In the county Court of Box Butte, County, Nebraska.

In the matter of the estate of Margaret Triplett, deceased. To all persons interested in said

Notice is hereby given that at the County Court Room in the City of Alliance, in said County, on the 29th day of August, 1919, at the hour of 38-1t-8151 10 o'clock A. M., the following matters will be heard and considered; RARE BARGAIN IN A PIANO AND the petition of George D. Darling for the issuance of letters of administration upon the estate of Margaret

County Judge L. A. BERRY, Attorney.

35-3t-8121 Daily Thought In general, pride is at the bottom o

all mistakes .- Ruskin.

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