DIrrigation Achievements in The State of Idaho By Heber Q. Hale.

The dawn of the twentieth century brought the redeemer. The glorious ninteenth century with her magnificent record of achievements rounded out her centennial career and gave birth to her successor, and still there remained upon the map of Idaho a great area of country, embracing the very heart of her, branded with the inhospitable name of "Desert;" but today that same territory bears the respected title, "Garden of Idaho." Where, but a half decade since, the gaunt coyote, in his own unmolested territory, died in practical youth of an unbroken spell of melancholy, on account of his adject isolation from sheep pastures and hen roosts; now grow fields of luxurious grains, and the laughter of pretty maldens greets the ear as the lowing of the cows is heard at night fall and the chickens are nestled away on their roosts to

What hath wrought this change? What magic hand has touched those barren sands and made them fertile? What lip has kissed the dry dead dust of ages and made it live and grow and bloom? It is our co-ex-istant and ever-obedient friend "Ir-rigation."

ADVANTAGES OF IRRIGATION.

ADVANTAGES OF IRRIGATION.

It is pointed out that soil, sunshine and water are the three elements absolutely necessary to plant life. It stands to reason that, other conditions being equal, plants thrive best under a maximum amount of sunlight It is further in harmony with reason and science that plants do not thrive best under a maximum or a minimum supply of water; but the same is to be applied skillfully and at such times and in such quantities as experience and scientific training dictate. It is obvious, therefore, that unless the natural rain-fall could be regulated as to time and quantity, as one regulates a head-gate in a canal, it will cease to be a better means of soil moistening.

The varying results obtained in different localities depend upon the qual-

ferent localities depend upon the quality, quantity and proportion, respecively, of soll, sunshine and water, and their intelligent handling by the farmer, with, of course, allowance made for altitude and other climatic phenomens.

The soil provides all the chemicals recessary for plant life; water disolves these life-giving ingredients and acts as the vehicle upon which they are conveyed into the assimilating organs of the plant; the sun supplies that mysterious and wonderful force, which not only gives warmth but which, not only gives warmth, but vivifies and enriches the growth of the plant and paints the color upon its cheek. Farming is, therefore, wholly dependent upon these three ele-ments, and the attainment of success in which, is dependent upon the in-telligence with which the soil is handled and the water is supplied.

THE USE OF WATER. Every farmer knows that an abundance of rain or excessive irrigation produces large thrifty stalks of wheat; in fact, under such conditions, any kind of grain will rush itself upward with such thrift and rapidity that it

HAT is, was not; what was, is not! What wonders one decade hath wrought! awn of the twentieth centuch the redeemer. The initeenth century with her and the century with her entered of achievements out her centennial career and the to her successor, and still nained upon the map of Idaho, rea of country, embracing the ble name of "Desert;" but to same territory bears the relatite, "Garden of Idaho." but a half decade since, the yote, in his own unmolested died in practical youth of an is spell of melancholy, on achies adject isolation from stures and hen roosts; now as of luxurious grains, and ter of pretty maldens greets is the lowing of the cows is night fall and the chickens ed away on their roosts to hath wrought this change? gic hand has touched those

IDAHO STANDS UPON MERIT.

Idaho, standing as she does in the forefront of the irrigation world, stands out before the world on her merits, claiming to have justly earned the distinction to which she has attained. She looks back but a few years to her in-ciplency. Less than a half century ago ciplency. Less than a half century ago she was not on the map of the United States, and not a score of years have passed since she joined her sisters in the Union; yet the innate virtues and the indefatigible energies of her youth have made for her a name.

Four years ago she began the task of subduing the "desert," and she has already succeeded in wiping a great part of it off the face of the earth and

already succeeded in wiping a great part of it off the face of the earth and is fast doing away with the balance. Out of it she is making homes for the homeless. She flung open wide her gates and shouted loud the tiding: Come, neighbors and friends—brothers of the Union and from over the sea—you are welcome to Idaho. One hundred thousand have accepted the invitation and come during this short length of time and made homes here.

STORY OF IRRIGATION.

The story of the development of irrigation in this state is an interesting one. In 1905 the first "Carey act" project was opened in Idaho-the great South Side Twin Falls tract. Water from the Snake river was diverted by means of a huge concrete and masonry dam into a canal 80 feet wide and 9 feet deep and 30 miles in lengthh, to wrest 220,000 acres of agricultural land from its aridity. Since that day the sage-brush has been cleared away, the land broken up and homes for 14,000 people have been built upon this tract, which was formed into a new county by the last legislature, with Twin Falls a city modern in every particular, with 5,000

modern in every particular, with 5,000 population, as the county seat. Of the 220,000 acres, fully 195,000 acres are now in cultivation.

The Twin Falls North Side canal (Lincoln county) is now nearing completion and will be ready to furnish water by May 1 next year for 180,000



delivery before next year.

On June 1 of this year, 80,000 acres of the 140,000-acre Twin Falls-Salmon river tract were opened to settlement and within 14 days water rights at \$40 the acre were purchased covering nearly the whole acreage, aggregating the sum of \$2,700,000; this, notwithstanding the fact that water could not be delivered for two years. livered for two years.

Contiguous with the projects above mentioned is the West End Twin Falls tract of 50,000 acres, the application for the segregation has been granted by

into an agreement with the state for the provision of water for a given tract of land; the cost of the construction of the irrigation works is prorated to the acreage covered by the system. This fixed price per acre for water rights, after being approved by the state land board, is paid to the construction company by the settlers upon the land, which price is governed according to the expensiveness of the cording to the expensiveness of the system in its construction, which in this state so far has ranged from \$15 this state so far has ranged from \$10 to \$65 the acre, payable in ten annual installments, with 6 per cent on deferred payments. The land is donated to the state by the general government for this special purpose and is sold to the settlers for 50c an acre, 25c down and 25c when final proof is made. The water rights are inseparable from the land; and when the land has all been disposed of, the canals and all appurtenances become the property of the tenances become the property of the settlers. Any naturalized citizen of the United States, or person who has declared his intention to become such, over the age of 21 years, except married women, is entitled to 160 acres, or less, of lend under this eat. of land under this act.

THE "RECLAMATION" ACT.

With the "Carey act" has come a companion quite as beneficient, though slower in progress—the "Reclamation act." The execution of the provisions act." The execution of the provisions of this act are wholly within the hands of the reclamation service of the United States, which constructs the irrigation works similar to the provisions of the "Carey act," letting the settlers have the water at actual cost. Idaho has also taken advantage of the provisions of this act in what are known visions of this act in what are known as the Minidoka and the Boise-Payette projects, reclaiming, respectively, 150,-000 and 372,000 acres of excellent farm land, at a cost of over \$11,000,000, which sum practically exhausts the original allotment made to this state. The total acreage under these projects is now in private ownership.

TABLES EXPLAINED.

Accompanying this article is a table Accompanying this article is a table showing all the irrigation enterprises operating under the provisions of the "Carey Act," both those in full operation and those in the process of development, with the total acreage in each segregation, the acreage still open to settlement and the cost of water rights an acre. Also another table ter rights an acre. Also another table showing by countles the total acreage in the state under canal systems, the acreage now being irrighted the each of canals and the cost of construction.

These figures do not pretend to show the total cultivated acreage of the state; but merely that portion of the cultivated areas which depend upon artificial irrigation for the development of crops.

ment of crops.

The six northern countles are situ-The six northern counties are situated within the rain belt and, consequently, receive sufficient precipitation for all practical purposes; yet Bonner, Kootenai, Idaho and Nez Perce counties have begun to apply artificial irrigation to a limited extent; while Latah county has not an artificially watered acre within its whole circumference. These counties form one of the principal granaries of the state, producing each year an immense producing each year an immense wheat surplus. Shoshone county, the sixth within the heaven-favored realm, does not boast of the production of a single bushel of wheat; notwithstanding this fact, however, the residents of this county are not with-

lands are taken up by homeseekers from our sister states.

THE "CAREY ACT."

The "Carey Act," which derives its name from United States Senator Carey of Wyoming, is a provision of law under which capitalists, or any individual or corporation, are permitted to enter into an agreement with the state for the provision of water for a given tract of land; the cost of the construction which is a provision of the construction of land; the cost of the construction is a provision of the provision of the provision of the construction of land; the cost of the construction is provided to the construction of land; the cost of the construction is a provision of the provision of the construction of land; the cost of the construction is a provision of the construction of land; the cost of land is the cost of the construction of land is the cost of land is the cost of land

plow and a harrow and an irrigation ditch?

From the table showing the irrigated lands, it will be observed that Idaho has under canal systems 3.413, 998 acres of land, nearly half of which is now under actual cultivation; that this state has expended \$28,391,771 in construction of irrigation works, and that the length of its canals totals 9,903. If these canals were extended end to end in a direct line, they would reach about 2-5 of the distance around the earth, or form four separate and distinct waterways across this continent from San Francisco to New York, connecting the Pacific with the Atlantic ocean.

IDAHO AND SISTER STATES. In all, Idaho has about 1,050 separate irrigation canals; she has 24 "Carey Act" projects, covering 1,726,548 acres, and two government "Reclamation" projects, reclaiming 522,-

clamation" projects, reclaiming 522, 000 acres.

As compared with her sister states, Idaho has more irrigated land, more land open to settlement, a greater acreage under "Carey Act" projects and, excepting Montana, has reclaimed more land by virtue of the "Reclamation Act" than any other state in the Union. Idaho has 1,278,098 acres of irrigated land in excess of Utah; 2,913,988 more than Nevada; 2,413,938 over Wyoming; 1,913,998 over Montana; 3,205,998 more than Oregon; 1,561,043 over Colorado; 2,764,348 more than Washington, and 2,413,998 over New Mexico.

more than Washington, and 2,413,98 over New Mexico.

As to "Carey Act" projects, Utah, Nevada, Washington and New Mexico have none; Wyoming has 26; Montana 3; Oregon 3; Colorado 3, and Idaho 24, Under this act, Idaho has provided water for 1,026,548 acres more than Wyoming; 1,661,548 over Montana; 1,542,748 over Oregon, and 1,670,246, more than Colorado.

Under irrigation systems, Idaho has available for settlement 1,171,128 acres of first class agricultural land, which is just that amount in excess of what Utah reports; 1,071,128 acres over Wyoming; 1,151,128 acres more than Montana; 1,101,128 acres over Oregon; 1,146,128 acres over Oregon; 1,146,128 acres over Oregon; 1,191,128 acres over Oregon; 1,091,128 acres over Washington, and 627,128 acres more than New Mexico.

THE "LAND OF OPPORTUNTY."

THE "LAND OF OPPORTUNTY."

Aside from the 1,171,128 acres of "Carey" land available for settlement "Carey" land available for settlement in Idaho, there are encompassed within these segregations quite an acreage of state land, including sections 16 and 36 in every township and other lieu lands, for which the irrigation companies must furnish water, and which can be purchased at public auction for a price not less than \$10 per acre, but ruled are not included in the total for a price not less than \$10 per acre, but which are not included in the total acreage above given. Then, there are numerous private irrigation concerns, under which state and government lands are located; so that in order to make the total above given cover the lands of the state now available for settlement, it would have to be materially augmented. Again, there should be taken into consideration the fact that Idaho yet has millions of acres of arid land, which at some not-far-distant day will be subjected to far-distant day will be subjected to King Irrigation; thus easily predicting Idaho's lead in the irrigation world of the future and making her the state of tomorrow—the great home builder—the "Land of Opportunity."

TABLE SHOWING COMPARATIVE IRRIGATION STATISTICS OF IDAHO AND SISTER STATES.

Heber Q Hale

	Government Rec., Project.			Carey Act Projects.				The section is	
States.	Number.	Total Acreage.	Average Cost of water per Acre.	Number.	Total Acreage.	Average Cost of Water per Acre.	Total Acreage Irrigated Lands of All Classes.	Total Acr'ge Irrigated Lands Available for Settlement.	Cost per
Idaho	24	1,726,548	, \$31.28	2	522,000	\$23.50	3,413,998	1,171,128	\$50.00
Utah		********		3	500,000	40.00	2,135,900		60.00
Nevada				1	150,000	26.00	500,000	100,000	50.00
Wyoming	26.	700,000	30.00	2	375,000	85.00	1,000,000	300,000	30.00
Montana	3	65,000	25.00	10	1.489,800	35.00	1,500,000	20,000	25.00
Oregon	3	183,800	26.00	2	100,000	32.00	208,000	70,000	60.00
Colorado	3	56,302	25,00		150,000	30.00	1.852,955	25,000	50.00
Vashington			20,00	9 .	348,650		649,650	80,000	60.00
New Mexico				5	235,000	35.00	1,000,000	544,000	45.00

LIST OF IDAHO IRRIGATION PROJECTS UNDER THE CAREY ACT Following is a list of the segregations which have been made, including those recently applied for, in the State of Idaho, to date:

	Total Acreage	Unsold Acreage	Price ri per
Name of company and address.	ge.	ld age.	rice water right, per acre
			e er
Twin Falls Land and Water company, Twin Falls			\$ 25.00
Twin Falls North Side Land & Water Co., Milner			
Idaho Irrigation Co., Boise			
Big Lost River land & Irrigation Co., Boise			
Mullins Canal Co., Payette	6,528		
Kings Hill Irrigation & Power Co., Boise			
Canyon Canal Co., Boise			30.00
Marysville Canal Co., Boise and Marysville			
American Falls Canal & Power Co., Blackfoot			
Portneuf Marsh Valley Irrigation Co., Downey Twin Falls-Salmon River Land & Irrigation Co., Milner			
West End Twin Falls Irrigation Co., Desmoines, Iowa		50,000	
Houston Ditch Co., Darlington			
Owyhee Irrigation Co., Pocatello			
Twin Falls Land & Water Co., pumping plant, Twin Falls			
William Owsley Project, St. Anthony			
Pratt Irrigation Co., Stone			
Grand Canyon Canal Co	9,375		
Twin Falls-Bruneau Project	600,000		
The Bruneau Project			a pares
The Owyhee Land & Irrigation Co			
Grand View Snake River Irrigation Co		3.000	
Twin Falls Goose Creek Project			
Twin Falls Clover Creek Project	45,000		
	1,726,548	1,171,128	

The 11 projects last named above are not yet open to settlement, segregations for the most of which not having yet been made, nor the contracts fully closed with the state land board; but they are all very feasible and will doubtless go through by next year.

the state land board, which will set a date in the near future for the land opening.

Near the town of Glenns Ferry, on the Oregon Short Line railroad, 12,000 acres of choice fruit land were opened to settlement on the 12th of October, last, by the Kings Hill Irrigation & Power company, since when—less than 30 days—over 8,500 acres have been taken, the settlers paying \$65 an acre for water.

Calling attention to the Mullin's canal near Bliss, on the railroad, which covers 6,528 acres, over 1,000 acres of which have been settled upon, one which have been settled upon, one passes along up the river to American Falls, where an irrigation scheme, under that name, caused the redemption of 57,241 acres of farm land, which is large solve the converted into living and promise the erection of an immense storage reservoir on Goose Creek, back of the town of Oakley, in Cassia county, for the irrigation of another 50,000 acres. fast being converted into living and growing fields.

The above enumerated irrigation systems are all "Carey act" projects, the provisions of which will be briefly explained later. Passing now from the American Falls project westward to-ward the Twin Falls country, we cross over the center of the great government "Reclamation" project, known as the Minidoka, which is fast reclaiming from an arid state 150,000 acres of the finest quality of agricultural land \$-50,000 acres on the north side of -80,000 acres on the north side of Snake river, by means of the gravity system, and 70,000 acres on the south side of the river, by means of a gigantic pumping machine. This land is all taken. Water for the north side is already provided and will be for the south side this coming season.

Passing on, then westward, over the great Twin Falls tract, one comes to another "Carey act" project which, in extent, is the most stupendous of all— the Twin Falls-Bruneau. It joins this immense area on the west and increas-

so, out, out, out and also acres, respectively, which are now in the formative state; but which, like the one last mentioned above, give great evidence of positive development and completion.

And reaching southward from the Minidoka tract, the Twin Falls company is now surveying and promise the

RECAPITULATION .. Summing up the acreage of this im-nense contiguous area, we have the

company Twin Falls North Side Land Mullins Canal company American Falls Canal & Pow-

er company Twin Falls-Salmon River Land \$0,000 West End Twin Falls Irrigation Twin Falls Bruneau Land and

es its already enormous dimensions by 600,000 acres. The project, however, is only in its incipiency; but it is considered a feasible one and will undoubtedly be put through.

Extending on westward lie the Owyhee Irrigation company, the Clover Creek, the Bruncau, the Owyhee and the Grandview projects, of 3,234, 45,000, 80,000, 30,700 and 3,000 acres, respectively, which are now in the formative

Twin Falls Land and Water

600,000

45,000 and the eagerness with which these ject

districts in the world. It's dimensions districts in the world. It's dimensions will increase year by year, for the land is by no means yet exhausted; as it now is, it can furnish a 40-acre farm to 50,000 families, or (reckoning five to a family) 250,000 people. In fact, if the entire population of the state (350,000) were divided into families of seven each, they could all live comfortably and well on this irrigated tract and each family would have 40 acres of land.

This is yet by no means all the land

Adding thereto the Minideka government project 150,000

Gives a grand total of1,637,703

AN INLAND EMPIRE.

This "inland empire" is destined to become one of the richest agricultural

To this could be added a sum

This is yet by no means all the land Idaho has reclaimed during the last four years under the provisions of the "Carey act." Up in Fremont county the Marysville Canal company reclaimed 6,572 acres, all of which has been filed upon and the canal completed and turned over to the settlers. In the northern part of Bingham and that part of Blaine county adjacent thereto, the Big Lost River Land & Irrigation company provided water for the reclamation of 78,122 acres, the greater portion of which is yet open to settlement. The Canyon Canal company, of Canyon county, has completed the work of supplying water for a tract of 5,829 acres, all of which is now in private ownership. In Bannock county 12,222 acres have been made habitable by the work of the Portneuf Marsh Valley Irrigation company. This tract is also fast being settled upon.
Under the "Reclamation act" the gen-

eral government has reclaimed, besides the 150-000-acre Minidoka project, 372,-000 acres in Ada and Canyon counties, under what is known as the Boise-Pay

ette Valley Reclamation project.

The foregoing will give an idea of what Idaho is doing on a large scale in the line of irrigation, both under the "Carey" and "Reclamation" acts, and the dearned the scale in the line of irrigation, both under the "Carey" and "Reclamation" acts, and the dearned the scale is the scale in the scale is the scale in the scale is the scale in the scale in the scale is the scale in the scal the demand there is for Idaho lands

TABLE SHOWING IDAHO'S IRRIGATED LANDS, WITH LENGTH OF CANALS AND COST OF CONSTRUCTION.

Countles.	Total acreage under canal systems.	Acreage actually irrigated.	Length of canals.	Cost of Construction
Ada	196,367	94,000	213	\$1,207,000
Bannock	141,582	75,964	435	795,500
Bear Lake	41,744	31,624	194	76,100
Bingham	758,940	458,320	1,938	3,012,532
Blaine	243,062	110,650	800	2,431,430
Boise	41,449	22,161	268	166,650
Bonner	1.000	710	10	2,500
Canyon	128,905	92,090	1,241	3,002,930
Cassia	95,183	18,700	838	1,802,320
Custer	6,580	3,690	112	13,350
Elmore	110.837	84,706	195	- 536,725
Fremont	523,864	236,985	1,435	1,432,240
Idaho	7,615	3,950	75	41,550
Kootenai	8,060	8,060	29	226,000
Latah				
Lemhi	31,025	21.169	120	71,063
Lincoln	433,041	75,595	770	7,136,663
Nez Perce	7,180	7,180	41	316,500
Oneida	156,176	93,285	654	1,000,712
Owyhee	138,000	6,514	165	898,000
Shoshone				1
Twin Falls	300,000	200,000	700	4,003,231
Washington	43,388	80,770	170	218,770
Total	3.413.998	1.626.123	9,903	\$28,391,771

It should be noted that the following counties are situated in the humid part of the state where the precipitation is for the most part sufficient for the development of crops, to wit: Bonner, Kootenal, Shoshone, Latah, Nez Perce and Idaho; also, that agriculture is not carried on in Shoshone county, it being wholly devoted to mining.

M The Steady Growth of Sugar City M

JGAR CITY, a flourishing town of 1;000 inhabitants, is located in the heart of the upper Snake riverval heart of the upper Snake riverval mentioned enterprises there are in this ley, 30 miles from Idaho Falls, on Yellowstone Park branch of the Cregon Short Line Railroad

The town is laid out in a very attractive manner, the main street leading from the depot and extending for five blocks to the entrance of the beautiful city park, which is located in the center of the town. The residence portion of the town is located on all sides of the business district, which gives the town a metropolitan air and imparts a good impression to the many who visit the place. Sugar City is situated in the center of a very rich agricultural district and is also the nearest rall-road point for the Teton valley, which is located 35 miles to the east.

THE SUGAR PLANT.

One of the largest of the Utah-Idaho Sugar company's factories is located at this point, and has done much to upbuild this particular locality and has brought much money and labor to it. The factory uses beets that are grown by the farmers for a radius of from 15 to 30 miles in all directions and the revenue derived from the sale of beets is enormous. Some idea of what proportions the beet sugar industry eaches in the vicinity of Sugar City, can be gained by reading the article on sugar in another part of this is-

The farmers are fortunate in this locality to have a ready sale for all their hay and grain at high prices. their hay and erain at high prices. Haley, Saunders and Hendricksen have purchased all the beet pulp from the sugar company for a period of five years and they are feeding now, and intend to feed each year, from two to three thousand head of cattle each winter, The Austin Brothers association and several smaller sheep companies, feed sheep extensively in this

town, one bank, two merchandise stores, one hardware store, rour hotels, stores, one hardware store, rour hotels, a drug store, a printing office, harness shop, tin and iron shop, carpenter shop, electric theater, gymnasium, butcher shop, two barber shops, photograph gallery, blacksmith shop, two contractors and builders, one brick and stone mason, and an up-to-date opera home. All of the above mentioned businesses are in a flourishing concition.

STRICT PROHIBITION.

The most pleasing feature of Sugar City is the fact that she is strictly a prohibition town, no doubt the only one in the state. This fact alone has had a tendency to bring many people there with their families, and some of the presspents formers are buying of the prosperous farmers are buying homes so they can take advantage of the fine influences to be found in the town.

THE SCHOOLS.

The schools are spoken of with pride by every citizen, not only of this town but all of Fremont county. The large stone school building was built in 1907, stone school building was built in 1907, and is up-to-date in every particular; the ventilation, heat and accommodations are the very best. There are three school buildings in this district, the two smaller buildings being in either end of the school district. This year the high school was inaugurated and splendid work is being done in this department. Besides the regular school work an athletic association is school work, an athletic association is in action, and is doing splendd work for the young students. The teachers and instructors are the very best and Sugar citizens have reason for being proud of their public schools. The pre-dominant religion is that of the Church of Jesus Christ of Latter-day Saints, though almost every creed would find some supporters here.

There has been some talk of the Cregon Short Line Railroad company building a branch line from this point

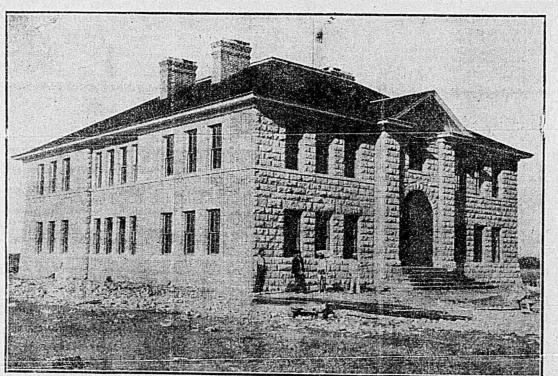
to the Teton Easin; there are several to the Teton Easin; there are several thousand prosperous farmers there who have thousands of bushels of grain to ship each year, and there are also vast deposits of coal to be found in the basin, several mines already being operated. There are also thousands of acres of extremely rich land between Sugar and the basin, which would be

if a railroad taps that section. The residents here are quite anxious to learn news of the road, as it will mean more business for this section of the country.

Socially Sugar City has much in the amusement line, as the town is made Sugar and the basin, which would be up entirely of young people, and ad-.....

vantage is taken of the pretty opera house and dance hall that is in opera-tion. Each Saturday night the hall is filled with merry dancers, and the managers of the hall have the repumanagers of the hall have the reputation of being among the best entertainers in the state. There is also an electric theater that is in operation every night. The M. I. A. Dramatic association gives several plays each year which are well received, as the association is made up of capable players.

As Sugar City is only four years old.



HANDSOME SCHOOL BUILDING AT SUGAR CITY.

it is marvelous the growth she has reached. The buildings are all up-to-date and the dwellings compare favor-ably with towns much larger than this.

LARGE ESTABLISHMENT. One of the largest establishments in the Snake River valley which enjoys the fullest confidence among its patrons is Van Tassel Bros., limited, retailers of general merchandise. So much de-pends on able management of all business and with this end ever in view Mr. Otis M. Van Tassel, general man-ager of the Sugar City store and an equally large establishment at Rexburg, has brought around him the most efficient clerks and sales people that money will procure. Being a man of the kneenest business

judgment, Mr. Van Tassel looked well into the future and he has made a splendid success of his business from its inception. The Sugar City store has its home in a spacious brick building which is one of the newest in the city, and the goods carried are always

One of the very important features of the business is the millinery departof the business is the minimery depart-ment conducted by Mr. Van Tassel's wife. This department is conceded to be one of the best in the entire state of Idaho. Customers in this depart-ment of the business come from every section of the great Snake River val-

Nothing that should be carried by a similar establishment is found lacking among the various stocks included in the big establishment. It is a pleasure for the intending purchaser to view the neat displays and the smallest wants of all patrons are catered to. This Mr. Van Tassel asserts is what has enabled him to build up his present large and rapidly growing business.

NEW USE FOR LIQUID AIR.

Consul Joseph I. Brittain, of Prague, furnishes the following information concerning a new method for using liquid

air:
At a recent meeting of the Austrian
Miners' association an interesting lec-Miners' association an interesting lec-ture was delivered concerning an inven-tion by Engineer Otto Suess to carry liquid air into the mines. The inven-tion is called "Aerolith" and is said will supersede all previously existing

systems in use. The "Aerolith" is based upon the utilizaton of liquid air. The Suess machine consists of a reservoir in the shape of a knapsack, which is carried on the miner's back. This reservoir is filled with liquid air, three to four quarts being sufficient for two hours. The apparatus is connected by two tubes to a respiratory mask fixed in front of the mouth of the miner, so he may readily inhale the liquid air. The reservoir containing the liquid air has an alarm clock attached to it, which warns the miner when the two hours have elapsed. It is claimed that the invention has produced very good results, and at some of the mines, laboratories for the manufacture of liquid air are being erected, in order that the management may always be prepared.

BIG PUBLIC TELESCOPE.

The only genuinely public observatory in the world is at Zurich, Switzerland. It is open every evening to the public, and during the last six months was visited by no fewer than 25,000 people. The teascope, which is mounted in an entirely new and ingenious way, is 17 feet 6 inches long and weighs 14 tons. Its object glass is 12 inches in diameter. Attached to the instrument is a projecting screen upon which objects in the heavens are thrown for the benefit of those waiting to get a peep through the telescope itself.—Popular Mechanics.

SURE DEATH TO MOTHS.

There was a suburban lady whose There was a suburban lady whose house one summer was quite overrun with moths. A tramp tord her that in return for a square meal he would give her an infallible moth cure. She set a square meal before the tramp, who devoured it and then said:

"All we need to do, ma'am, is to hang yer moth-filled clothes and carpets and things on a line and beat 'em with a stick. Good-by to yer moths then."

"Will it kill them?" wsked the lady.
"Yes, if ye hit 'em," said the tramp.
—Argonaut.

IN MEMORIAM.

"I suppose you carry a memento of some sort in that locket of yours?" "Yes; it's a lock of my busband's hatr". 'B'ut your husband is still alive?''
"Yes, but his hair is all gone."-Pick
Me Up.