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JANUARY

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Vol. XIII.—No. 10



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ARIZONA

THE STATE MAGAZINE

Published Monthly in the Interest of the Development of the Resources of ARIZONA, "The Land of Tomorrow"

VOL. XIII—NO. 10

PHOENIX, ARIZONA, JANUARY, 1924

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THE PART THAT WOMEN'S CLUBS PLAY IN THE LIFE AND UP-BUILDING OF THE STATE

Mrs. T. H. CURETON,
President, Arizona Federation of Women's Clubs

IF one ever had any doubts about the need and efficacy of women's clubs, he would find them chased away by strong convictions were he to be so fortunate as to attend one of the club meetings held in our state during the year. Home-making and plain housekeeping, disguised by other names, are the main issues of our club meetings. For no other reason on earth are the women trying to rid the world of vice, of illiteracy, of graft and of general unrighteousness than that we may live better in our homes and among our neighbors. There are meetings of friends and the talks are on problems that relate to our homes, our children, and questions of citizenship, education, public welfare and art.

Like a well-organized army these faithful club women march steadily forward, determined that nothing shall check the advancement of Arizona—and in like measure all the world. Arizona club women have by preference made their homes in a country where life is at its best, and they want others to enjoy it with them. The character of any country is reflected in the nature of its people. The ever-present sunshine and blue skies of Arizona foster a genial attitude toward the stranger within our midst. The broad expanse of our state, with its wonderful resources and varied natural attractions, tends to make us magnanimous and we are more than glad to make the visitor welcome. We are unselfish and want others to enjoy with us the many gifts that Nature has bestowed with such a lavish hand.

If we make our visiting sisters feel that they are a part of us, they will become advocates and defenders of our community. It is the woman who is made to feel that she does not belong who is always a center of unrest. It is the civic idler who is the destructive critic. Let us bind our community together by exhibiting good will toward everyone—especially the newcomer. Make her feel that she is welcome, give her work to do—constructive work, and she will become a booster.

Club life owes its enduring power to the fact that it develops true friendship amongst women. We do not have to do some heroic act in

order to be friendly. There are many persons who are ready to do some tremendous thing for us. Let loose a flood or burn up part of the town and everyone suddenly finds that all the people they never knew are really neighbors. Place a woman you never knew and never heard of on a top story of a burning building for just five minutes, and a city will hold its

want to thank you for the great help you have given me. You have indeed been a friend." The man thus spoken to did not recognize the speaker and replied: "I don't remember ever having met you. How, then, is it possible that I can have been of any help to you?" "You are right," replied the other. "We have never met before, but I have passed you

ing and the warm hand of brotherly love?

Women are banded together for the purpose of developing community neighborly spirit. It is the cement which binds together women from the North, the East, the South, the West. It binds every type and every variety of American womanhood. In simple friendly fashion we can make our visiting sisters happy. We can invite visiting women to our club meetings to enjoy a cup of tea or listen to a program. In many localities we have club homes to offer them.

Such is the home-loving spirit amongst Arizona club women that fourteen clubs have club homes or are in process of building. It has been the good privilege of the writer to have visited every club house in the state. She has found that wherever there is a club house there is more opportunity for community service. If we think we can endure without helping our neighbor, we have only to recall the stories of all the great empires of the past—Egypt, Assyria, Babylon, Greece, Rome—which teach the lesson that an institution can not live and deny friendly interest and cooperation to those without its borders.

A few years ago the club house was used exclusively for club meetings and during the remainder of the time it was idle and of no especial service to any one. Is it not remarkable that it has taken so long for us to see the vast number of possibilities and opportunities that were there at our disposal and which

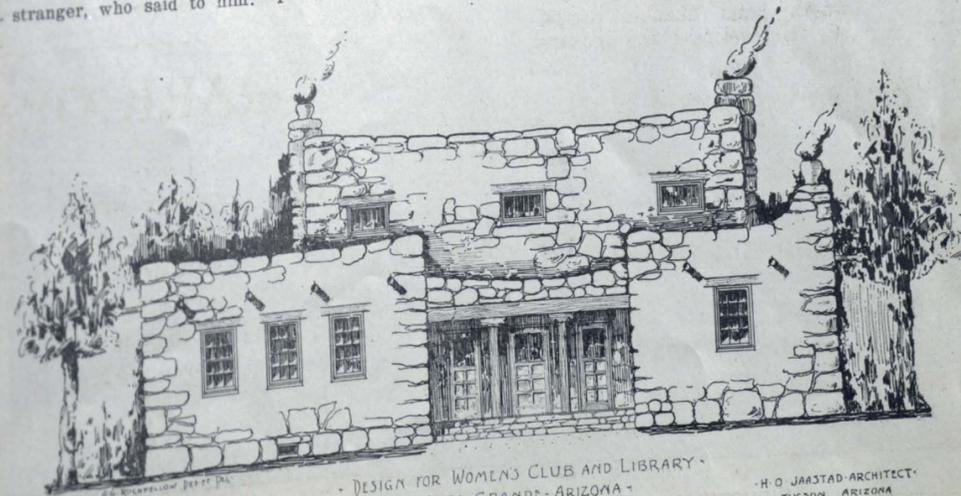
(Continued on page 11)



WOMAN'S CLUB, BISBEE

breath, firemen will risk their lives, men will cry out and women will weep. But subject this same woman to loneliness and social neglect and who will stretch out a helping hand? It is life that is hard to live. It is the thousand and one things that make up and brighten our lives. There is a well-known story of a man who was addressed on the street by a stranger, who said to him: "I

on the street many times and I never saw you without a cheerful and friendly look on your face. When I was depressed your smile was like a ray of sunshine on a cloudy day." Such is the spirit of kindness, that like the Arizona sunshine, sheds its warmth and healing power on all alike. What can bring more pleasure than the voice of cordial greet-



DESIGN FOR WOMEN'S CLUB AND LIBRARY - CASA GRANDE - ARIZONA -

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Arizona's Educational Facilities

By C. O. CASE,
Superintendent of Public Instruction

THIS article about our schools can be but a suggestion—a mere hint of what can be learned from the schools themselves in the camps, towns and cities and along the high-ways and by-ways of Arizona.

Arizona's schools are her best boosters—her real builders of state. Silently, convincingly, they tell the story of intelligence and progress and the tide of immigration halts and builds homes and mighty industries where we build our schools.

One-room Schools

The first installment of educational facilities came to us in Tucson in 1869. It was a one-room school house with home-made desks and such home bought text books as "Webster's Speller," "Quackenbos' Grammar" and "Ray's Arithmetic." This rough first ancestor of school architecture and equipment makes perhaps the one-room school a consistent starting point for a discussion of Arizona's educational facilities.

During the forty years that Arizona was a territory, the provision for one room schools was meager and uncertain. The small settlements in which these schools were established did not have the means to build school houses or furnish equipment much in advance of the primitive, or to maintain adequate school terms.

But, upon the advent of Statehood, Arizona promptly came to the relief of these schools by providing a state and county fund that is sufficient to give to each one-room school annually, at least Fifteen Hundred Dollars for its maintenance; this has resulted in longer school terms (an eight months' minimum being required); better paid and better trained teachers, and in facilities, in buildings,

equipment and general community support that is on par with those to be found in the best schools of the kind in other states. There are two hundred and thirty-six one-room schools in Arizona.

Accommodation Schools

Arizona has also made special statutory provision for the education of those who are so situated that it is impracticable or impossible for them to attend any regularly established school. Over Fifty Thousand Dollars of state and county funds were expended during the past year in accordance with this provision. This special expenditure of school moneys is an expression of a pronounced public sentiment that all the children of the state should be educated with chances as nearly equal as possible.

Two-room Schools

There are fifty-nine schools in the state that employ two teachers, and a Three Thousand Dollar Annual minimum appropriation must be given each school of this kind out of state and county maintenance funds, enabling it to employ the best teachers and giving it ample allowance for improvements, equipment and other purposes.

Consolidated Schools

One of our state laws enables any number of school districts to consolidate. Under this law, many consolidated schools have been established by a majority vote of the electors of the various districts effecting these unions, resulting in advantages that a small single district is unable to procure.

Supervised Schools

The schools of the larger rural districts and those of the cities are especially well supervised, and the extent to which State, County and local funds have been used in securing the facilities that the best supervised schools are expected to have for regular and special work for day classes, night classes and part time classes, has been one of the determining factors in the high rating given us by those who have surveyed educational conditions in the state.

Arizona has forty-eight supervised schools, for whose maintenance \$2,651,060.45 were expended during the past year.

Free Textbooks

No school is a school without school books. The textbook is the most common, the most used medium of learning. And to facilitate education to the extent of making this old school-room essential more easily and readily obtainable, to equalize the burden of expense necessary to obtain it, to eliminate the individual embarrassment and retardation that was long recognized as a resultant of the scheme of personal purchase, the State of Arizona is buying, with state funds, all the text books used by the children who attend her common schools.

In 1912, Arizona passed a state-wide Free Textbook Law providing for state purchase of all common school textbooks, and she was the first state in the union to pass such a law.

Roads

First, the trail or the road, then the school. Good roads are a necessary adjunct to good schools.

They give maximums in punctuality and attendance. They fill the school house by day with the regular classes, and light it at night for special classes and for community gatherings.

Arizona has a total of 21,227 miles of surfaced roads, as reported in a Federal bulletin just issued following a survey made by the bureau of public roads.

Good Attendance

Good attendance, necessary because apportionments are made to the various districts on average daily attendance, and also because it helps so much to make the most of every day's work in the school-room, is secured by special officers, appointed by Boards of Trustees in districts having a school census population of two thousand or more and by County School Superintendents for all of the smaller districts. The officers, appointed by County School Superintendents, are circuit riders, each with several districts to cover daily by automobile.

High Schools

The state law provides for single union and county high school districts. Each high school has the privilege of determining its own course of study, subject only to the approval of the State Board of Education. The courses offered are those ordinarily given in high schools of other states—stressing, perhaps, Academic courses that prepare students for college and university entrance, but including also special Vocational and Industrial courses in Agriculture, Home Economics, Manual Training and Commerce.

There are forty-one high schools in the state. Their total cost for maintenance for the school year, ending June 30, 1923, was \$1,458,109.21. The total average daily attendance of these schools was 6,869.

State aid is apportioned annually out of the State School Fund to the various high schools of the state on a minimum basis of \$25.00 per capita of average daily attendance; it is, however, usually in excess of this, being about \$37.00 per capita.

Vocational Education

"The Arizona Vocational Educational Plan," as reorganized, consists of three divisions:

The Smith-Hughes program, including the subjects of Agriculture, Trades and Industries and Home Economics. This type of work is carried on mostly under the supervision of High Schools and the larger city schools.

The Opportunity Class Work of three types: General occupational classes adapted particularly to rural schools to allow the older boys and girls the opportunity of instruction in hand work projects and special training for the occupations in the community; Boy Scout Troops to carry out the program of the Boy Scouts of America; and Camp Fire Girl Groups to carry out the program of the National Camp Fire Organization.



A SEWING CLASS—RURAL TRAINING SCHOOL

Civilian Rehabilitation for those injured in industry or otherwise, for the purpose of making them self-sustaining.

State Aid

Each year there must be apportioned out of the State School Funds an amount of money, determined by mul-

many districts and reduced in all districts.

State Normal Schools

Arizona has two State Normal Schools, one at Tempe, the other at Flagstaff.

Alive to the advance being made in education, and backed by public

verted at an expense of \$107,521.70 into tennis courts, basket-ball courts, athletic fields and campuses arranged in a most attractive manner, with shaded lawns, cement walks, graveled drives and a profusion of trees, shrubs and flowers.

In addition to the regular training course which it gives at its own plant, the Tempe Normal, with full charge of two country schools, also gives a special rural course under the identical conditions that actually prevail in the rural schools of the state. And, in addition to its regular work, the Flagstaff Normal, with an ideal summer climate, gives a special ten-weeks' course where every year five hundred Arizona teachers prepare themselves for better service.

The State University

The latest inventory, filed with the State Auditor, shows:

University real estate, valued at \$326,565; improvements, \$131,578.48; buildings, \$1,306,849.30; equipment, \$504,521.19.

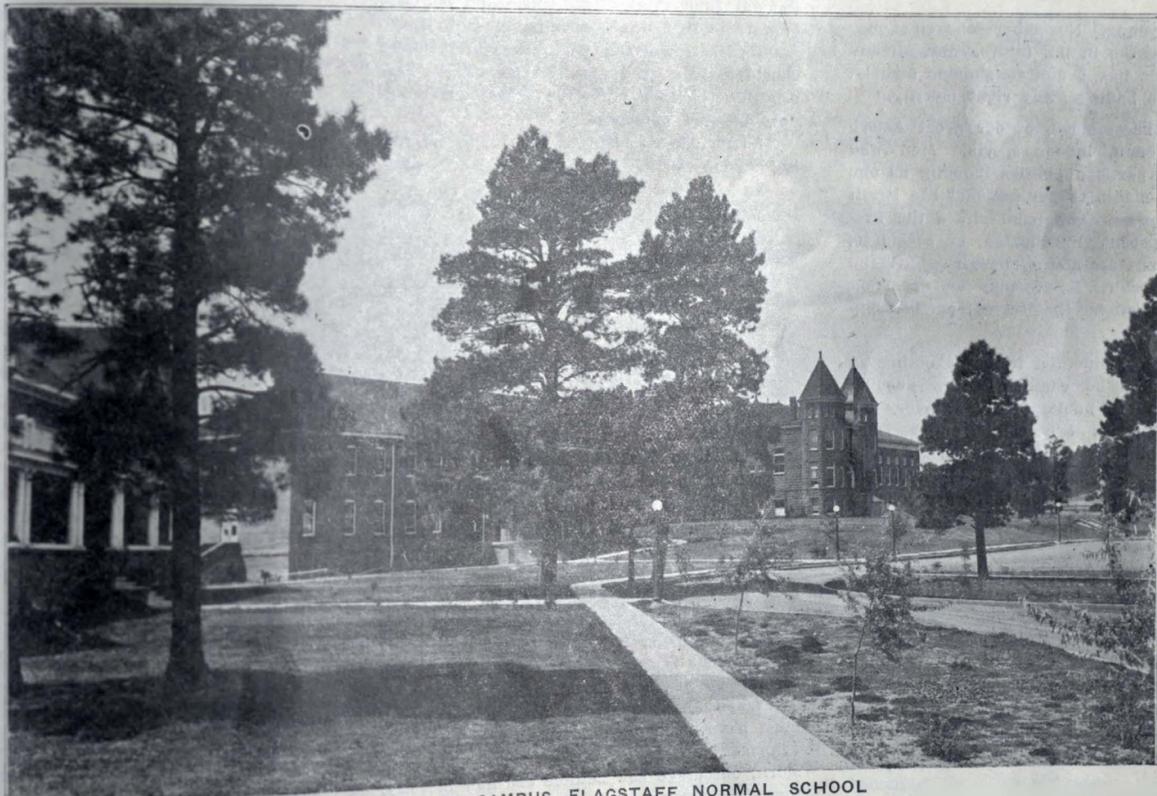
These quotations may, perhaps, suggest to what extent Arizona is prepared to offer advantages for higher education.

A recent official University bulletin gives the following statement showing annual receipts for University operation and growth:

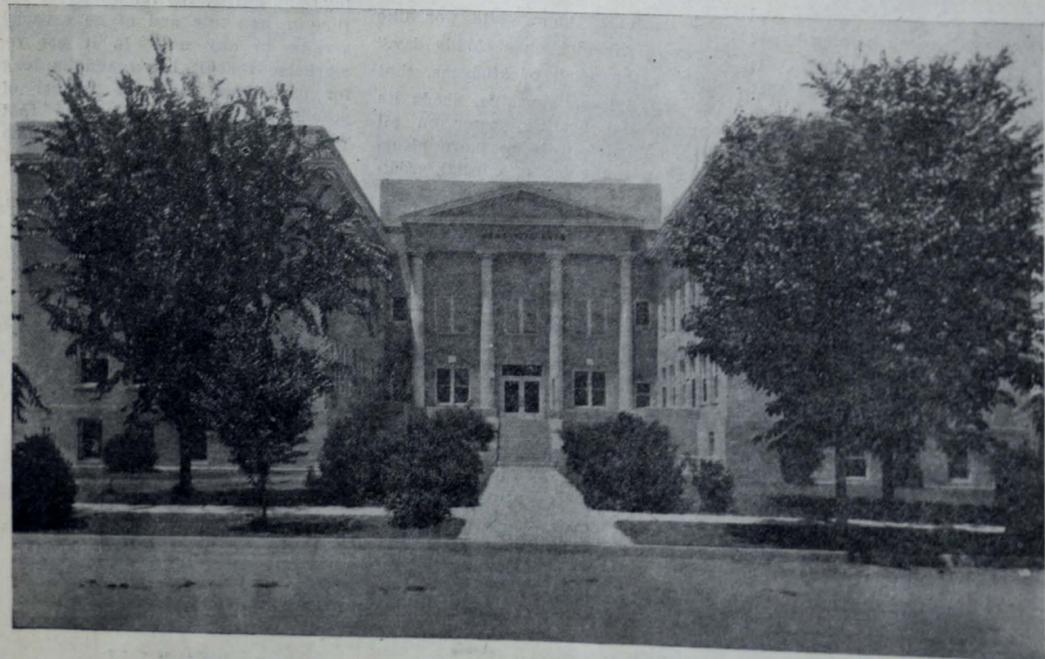
For the year 1922-23	Receipts
From the Federal	
Government	\$ 147,761.23
From State Appropriation	627,218.00
From Co. Appropriation	19,600.00
From University Receipts,	
Fees, Tuition, Dormitory Rentals, Farm Sales, etc.	84,575.01
Balance	131,214.76
	\$1,010,369.00

The bulletin also gives the following table, suggesting what the University gets out of its annual receipts:

(Continued on page 10)



PARTIAL VIEW—CAMPUS FLAGSTAFF NORMAL SCHOOL



INDUSTRIAL ARTS BUILDING—NORMAL SCHOOL, TEMPE



RURAL TRAINING SCHOOL NUMBER ONE

plying the daily average attendance of the entire state by \$25.00 per capita. This goes to both the common and high schools. This apportionment is increased from other sources, giving, usually, about \$37.00 per capita. For the year ending June 30, 1923, the amount apportioned in accordance with this provision was \$1,852,532.14.

County and District Levies

The State Aid equalizes the burden of school maintenance, reducing the county and district levies. The county levy, however, must be not less than \$45.00 nor more than \$80.00 per capita county average daily attendance with an additional 10 per cent for a Reserve Fund. In this way, the district levy is eliminated in

confidence and funds, these schools are offering up-to-date advantages in regular standard professional courses, as well as in special courses in School Art, Industrial Arts, Home Economics, Kindergarten and Commerce.

Power plants, dormitories, dining halls and buildings for residence, administration, hospitals, science, training schools and other purposes have been built at an inventoried cost of \$1,001,057.76. These buildings are provided with laboratories, libraries, machine shops—in short, every kind of modern equipment needed for thorough work in the various departments in the schools, amounting to an inventoried aggregate of \$187,134.23. One hundred and sixty acres valued at \$138,500.00 have been con-

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Vol. XIII.—No. 10 January, 1924

The Cauldron Simmers

The year is young. November—and election—is still nine months in the future. But already the political pot has begun to simmer audibly. Soon it will be boiling away right merrily.

Politics has become one of our great American, and Arizonan, indoor sports. Men who think may see partisan politics looming as one of the great menaces to our national life but it is futile to say so. The public likes the fireworks of the perennial campaign, or seems to, and the politicians are astute enough to give the public what it wants. Fair play and common sense must look out for themselves; partisanship is the thing.

So we have presidential timber shooting up on every hand. The candidates are pushing themselves into the public prints at every opportunity. Primaries are coming up. Dark horses are being groomed assiduously. The petty hangers-on are scurrying hither and yon, trying to pick a winner, for there are jobs to be had and plums to be plucked, if one is only lucky enough.

The situation in Arizona, naturally, isn't developing as rapidly as the national campaign, but it is coming along fast enough. There are rumblings in the air and underfoot. "To be or not to be," that is the question in the minds of scores of aspirants.

Already the great American lists have been thrown upon the public. Hats are soaring into the ring. But what will happen at the conventions?

As near as we can see the Republicans will have to nominate Coolidge, or repudiate the whole administration of the past four years, which would be a poor strategic move. Coolidge himself is still more or less of an unknown quantity so far as the rank and file of the people is concerned. There has been little opportunity to gauge his strength of character. His message to Congress was frank and decisive enough; his action in the oil lease scandal appears promising, but still there is much to be learned about the man. At least it is pleasant to have a president who is quiet and unobtrusive.

Hi Johnson, of course, may develop into a storm center, but we rather think Hiram is more smoke than fire. He has been against everything so long he can offer nothing constructive. His hold on the people is more likely slipping than gaining. The primaries will tell.

There are other possibilities, of course. Frank Lowden may come back, but we doubt

it, although Lowden is one of the best men in the field. There is likely to be a whole host of progressives, but they more probably will dally elsewhere than in the party.

The Democratic convention promises to be more complicated. Underwood and McAdoo, Ralston and Smith, and all the rest, including our old friend Bryan's new hero, will have to fight it out as best they can. McAdoo is the favored of the progressives, and probably of labor. Underwood should carry the South and the conservative elements. Smith will get the wet vote, and so on. Plenty of room for division, but it's our bet that the party leaders will do everything they can to sidetrack McAdoo. Maybe so, and maybe not. The next six months will tell.

And here in Arizona it looks like the game will get just as complicated. Governor Hunt hasn't decided whether to run again, he says, but the people think he will. Senator Mulford Winsor is almost openly in the field; a good man, too. His campaign necessarily would be for the Colorado River pact which he champions. Little birds have whispered that Fred Colter would like to join in the running, but that's uncertain, we hear. Some would like to see General John C. Greenway come out, but that appears to be a dim possibility just now. Judge Stanford may and may not run again; if so, he should make a good race. Recent reports that Amos Betts was after the governorship are now declared unfounded.

As for the Republicans, they aren't advancing anyone as yet. We think they'll keep mum on the pact until the Democrats thresh it out at the primaries.

And so it goes. But isn't it funny how we get all excited every two or four years about a political contest without an issue worthy of the name?

It Pays To Organize

This is the season of the year when organizations tell us what they have done, what they propose to do, and how they must have our support in doing it. And, unlike certain of our fellow citizens, we find their efforts well worth while.

It's a fact that many of us do not appreciate our organizations, whether they be chambers of commerce, Farm Bureaus, or others. And some can't see why we will have to get behind our organizations if our communities and state are to develop as they should.

When all is said and done, a community must have some organization to co-ordinate development efforts, lay out programs, mold civic spirit, encourage new settlers and new industry, formulate opinion on improvements, and so on. That's why a chamber of commerce is really indispensable. It may not function as well as it should, but if it doesn't it's due to lack of support on the part of the community, and especially its business men.

And our industries need organizations, too. Our farmers should have an agency to encourage efficient production, educate them in bringing it about, lay the foundation for orderly marketing through co-operation, and generally look after the interests of the whole industry. The same with cattlemen, and sheepmen, and other producers. Hence the Farm Bureau, the Cattle Growers and Wool Growers, and others.

Arizona, a young state entering on its great development, needs its organizations. It has them, but they should be stronger and more active. Their only handicap is lack of full support. It even has an organization that takes in all those we have named, and serves as a clearing house to co-ordinate their activities on common problems. We have all the machinery

to put over a great development program; we need more people behind it.

If you are a producer, get interested in your association. Back it to the limit; help it function the way you think it should. If you are a business or professional man, get behind your chamber of commerce.

No matter who you are, you'll make more money if Arizona goes ahead. Put your shoulder to the wheel!

Trade At Home

Now comes announcement of the third annual "Trade at Home—Use Arizona Products" week, March 17th to 22nd.

We doubt if the citizens of the state fully realize just how much good this "Trade at Home—Use Arizona Products" movement has done during the past two years. The fine support of the press has made it possible for us to know in a general way, that millions of dollars of new business has been developed for Arizona farmers, cattlemen, sheepmen, manufacturers, distributors and business men. The periodical reports of the Arizona Industrial Congress have shown how this has been done, and the tremendous possibilities of the future. But still many do not realize that it is benefitting every one of us.

When you come right down to it, every citizen of the state has a very direct financial interest in Arizona, and in the city in which he lives. If the farmers and cattlemen and miners are making money, business is better. There are more jobs, and they pay better. And that in turn makes it possible for people to buy more from the farmers and other producers. It's a sort of unbroken chain, this economic cycle, and we're all links in it.

Last year an Arizona manufacturing plant that had received a \$10,000 order from a mining company, sent the Industrial Congress an analysis showing that one order directly or indirectly affected some 200 workmen, turned a little more business to several other concerns, and increased bank clearings \$18,000, besides paying quite a bit of taxes.

There's another way we all benefit from making business better at home. The best way, and in fact almost the only way, to reduce taxes is to increase taxable wealth faster than the cost of government increases, so that the unit tax or tax rate automatically comes down. By keeping our money at home, patronizing home folk, and using Arizona products, we develop business and industry, encourage expansion, and thus create the taxable wealth that means lower taxes in the future.

One doesn't have to be an economist to see these things. They are mere common sense ideas.

So when your local chamber of commerce, with the co-operation of other organizations and your Farm Bureau, stages "Trade at Home—Use Arizona Products" week March 17th to 22nd, just tell your neighbor what trading at home means to him personally. Line up your friends, and get them to keep their money at home, and to use Arizona products, all the year through.

That's the kind of team-work that makes a greater and more prosperous state—a place where we can live more happily and make more money.

OUR COVER PAGE

We are indebted to the BUSINESS Magazine of the Burroughs Company of Detroit, Michigan, for the color design of the Roosevelt Dam on the front cover this number. As Arizonans, we also express our appreciation of their having, by its use, helped to better acquaint the people of the United States with the development that is taking place in Arizona.

Mining Activities In Arizona

By CHARLES F. WILLIS,
Editor Arizona Mining Journal



DUE to the ups and downs of 1923 copper history, there has probably been more interest taken in the metal by the public, i. e. that portion of the public not directly concerned in a business way with the copper industry, yet indirectly affected. The closing down of the copper mines in 1921 demonstrated to many people that there was a connection between their business and the copper industry even though that connection was not visible and traceable; thus the public has felt a keen interest in what the copper industry was doing, what it planned to do, and in the copper situation in general.

It is but necessary to recite its progress to show that Arizona is truly the greatest of copper states. It was in the early seventies that the United States passed Chile as a producer. The mines of the Lake Superior region were the first in the United States to be worked on a large scale. Production started in 1845 and to date they have produced seven billion pounds of copper. Montana, although it started production in 1868, did not surpass Michigan until 1887 and it has produced to date about eight and a half billion pounds of the red metal. Arizona as a copper producer started in 1881, in 1910 passed Michigan and Montana, and has produced a total of nine and a half billion pounds. To summarize:

Michigan—Leader 1845 to 1887—78 years of production; total 7,000,000,000 lbs.

Montana—Leader 1887 to 1910—55 years of production; total 8,500,000,000 lbs.

Arizona—Leader 1910 to date—42 years of production; total 9,500,000,000 lbs.

But the year 1923 has been one of trials and tribulations for the mining industry, abundant with critical periods but never without its ray of hope that the near future had something good in store for the industry that has so successfully passed through so many crises.

Inasmuch as the mines of the southwest produce the major part of the copper of the United States and such a large percentage of the copper of the world, whatever may be said about the copper industry of the world applies likewise to the southwestern mines have faced applies likewise to the world's red metal business.

And the impression lurks back in the minds of the public that the year 1923 has been a very poor one for the industry, which is true in a sense, but not in the sense generally understood. From the point of view of profits and return to stockholders of the money invested and

the interest thereon, it has been a very poor year, but from the angle of the public and its relation it has been far from a poor year for it has seen a production fourth highest in peace time history; thousands of men well employed and probably a higher number than at any other than war years; a far greater total wealth distributed in the purchase of supplies than in any other peace time year, and a construction program that is far in excess of any year, peace time or war.

A few figures will best answer the question as to the stability of the copper industry in Arizona. In spite of all the disturbance in copper this year, with a feeling prevalent that the copper industry has gone to the bow-wows, the year 1923 will show the fourth highest copper production in its history, being only exceeded by the war years of 1916, 1917 and 1918.



Junction Shaft, (Superior and Pittsburgh), Bisbee, Arizona.

Following are the figures on copper production for the state of Arizona from the year 1895 to date, expressed in millions of pounds:

Year	Mil. Lbs.	Year	Mil. Lbs.
1895	48.0	1902	291.1
1896	72.9	1910	297.2
1897	81.5	1911	303.2
1898	111.2	1912	359.3
1899	133.1	1913	404.3
1900	118.3	1914	382.4
1901	130.8	1915	432.5
1902	119.9	war year 1916	694.8
1903	147.6	war year 1917	719.0
1904	191.6	war year 1918	769.5
1905	226.9	1919	531.8
1906	262.6	1920	553.0
1907	256.8	1921	155.2
1908	289.5	1922	428.2
		1923	600,000,000 pounds

This shows an almost uninterrupted increase in the production of copper in Arizona from 1895 to 1919, when the post-war deflation set in, insofar as the copper mines were concerned. The disorganization of the copper industry as a result of the world war

conditions came sooner than in many other industries. Any conclusions drawn from what happened as a result of the world war are erroneous insofar as normal conditions are concerned.

The year has been absolutely free from labor troubles or even hints of material misunderstandings between the miners and the operators. The voluntary increases in wages when copper hit 14 and 17 cents did much to show that the desire was to do what was right and when the low price of copper made necessary the removal of one of these raises it was accepted without question as the only and proper thing to do.

The labor situation has not been good. Skilled miners have seemed to disappear or to have sought other lines of employment. There is a shortage of skilled miners as well as skilled mechanics in practically every camp and almost every mine has es-

There are 54 producing copper companies in the world, 21 of which either are in Arizona or close by. The southwestern copper mines and their estimated productions when going full blast follow by districts: Jerome—United Verde, 120,000,000 pounds; United Verde Extension, 50,000,000.

Ray-Superior — Ray Consolidated, 85,000,000 pounds; Ray Hercules, 25,000,000 pounds; Magma, 40,000,000 pounds.

Globe-Miami—Inspiration, 120,000,000 pounds; Miami, 65,000,000 pounds; Old Dominion, 28,000,000 pounds; Arizona Commercial, 12,000,000 pounds; Iron Cap, 12,000,000 pounds.

Warren District (Bisbee)—Copper Queen branch of the Phelps Dodge corporation, 200,000,000 pounds; Calumet and Arizona, 60,000,000 pounds; Shattuck, 15,000,000 pounds.

Clifton-Morenci — Arizona Copper branch of the Phelps-Dodge corporation, 63,000,000 pounds; Detroit Copper Company, branch of the Phelps-Dodge Corporation, 20,000,000 pounds.

Ajo — New Cornelia, 40,000,000 pounds.

Other companies close to the Arizona border are the Cananea Consolidated at Cananea, Sonora, with a production of 60,000,000 pounds; the Chino Copper at Santa Rita, N. M., producing about 80,000,000 pounds, and the Burro Mountain branch of the Phelps-Dodge corporation at Tyrone, N. M., with a fair production when operating, but with a probability it will not be operated for some time to come.

Outside of the question of profits and dividends, the Arizona copper industry has been in excellent shape and the public in general has shared more liberally in its work than have the stockholders and investors, for they have been distributing wealth on a basis of 600,000,000 pound production, have been constantly increasing production, employing additional men as fast as satisfactory men could be obtained, have been running training schools to make miners out of capable inexperienced help and have purchased a larger percentage of Ari-

which they are a part and to do it in an interesting and instructive manner.

The development of the company town at Inspiration has also been a project worthy of note, where modern homes with conveniences have been erected near the mine, to be rented on a moderate rental basis. The progress of the cooperative stores at Inspiration, Miami and Ajo has been such as to cause the employees to protest vigorously when the legislature of 1923 sought to abolish them.

The real thing back of the trials and tribulations of the copper industry is the fact that during the war the producers doubled their production capacity in order to care for war needs and hence they must await peace time demands to catch up to war time capacity.

There are 54 producing copper companies in the world, 21 of which either are in Arizona or close by. The southwestern copper mines and their estimated productions when going full blast follow by districts:

Jerome—United Verde, 120,000,000 pounds; United Verde Extension, 50,000,000.

Ray-Superior — Ray Consolidated, 85,000,000 pounds; Ray Hercules, 25,000,000 pounds; Magma, 40,000,000 pounds.

Globe-Miami—Inspiration, 120,000,000 pounds; Miami, 65,000,000 pounds; Old Dominion, 28,000,000 pounds; Arizona Commercial, 12,000,000 pounds; Iron Cap, 12,000,000 pounds.

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zona products than ever before in history. And in addition, the construction program of the past year has been of much magnitude.

Insofar as the operation of the copper mines is concerned, there has been no hint of their troubles which seems to be assurance that they feel that the solution of the difficulty is near at hand, for they are preparing themselves for a bigger and better mining industry and are spending millions of dollars in doing so.

As has been said before, the construction program of the past year, most of which is still in progress, has been an enormous one, particularly among the large mines and practically every camp has seen its share of this work which may be briefly enumerated.

smelting plant which is said to be the last word in smelters. Word has recently been received that the Magma would stop shipments to the Hayden smelter on January 1st, and start stocking ore for their own plant which will be blown in within the next few months.

At Jerome, the work of doubling the capacity of United Verde plants had practically been completed with the exception of the crushing plant

ed to completion so that the new milling plant might be started on May 1st, and this plant, which is the result of many years of work and many millions of dollars, is now producing and handling about 2000 tons of Sacramento Hill ore daily. At both the Calumet and Arizona and the Copper Queen smelters at Douglas extensive changes have taken place during the past year, and at the former plant about half a million

Branch has given rise to some considerable problems in coordinating the work of the two properties for economical handling and operation and this has involved some extensive reconstruction of the No. 6 concentrator at Morenci which is now about two-thirds completed.

In addition to the work at the large mines which is in terms of millions of dollars, there has been much activity among the smaller properties which are the potential large mines of the period which J. Parke Channing talks about when he refers to the ultimate scarcity of copper 15 years from now.

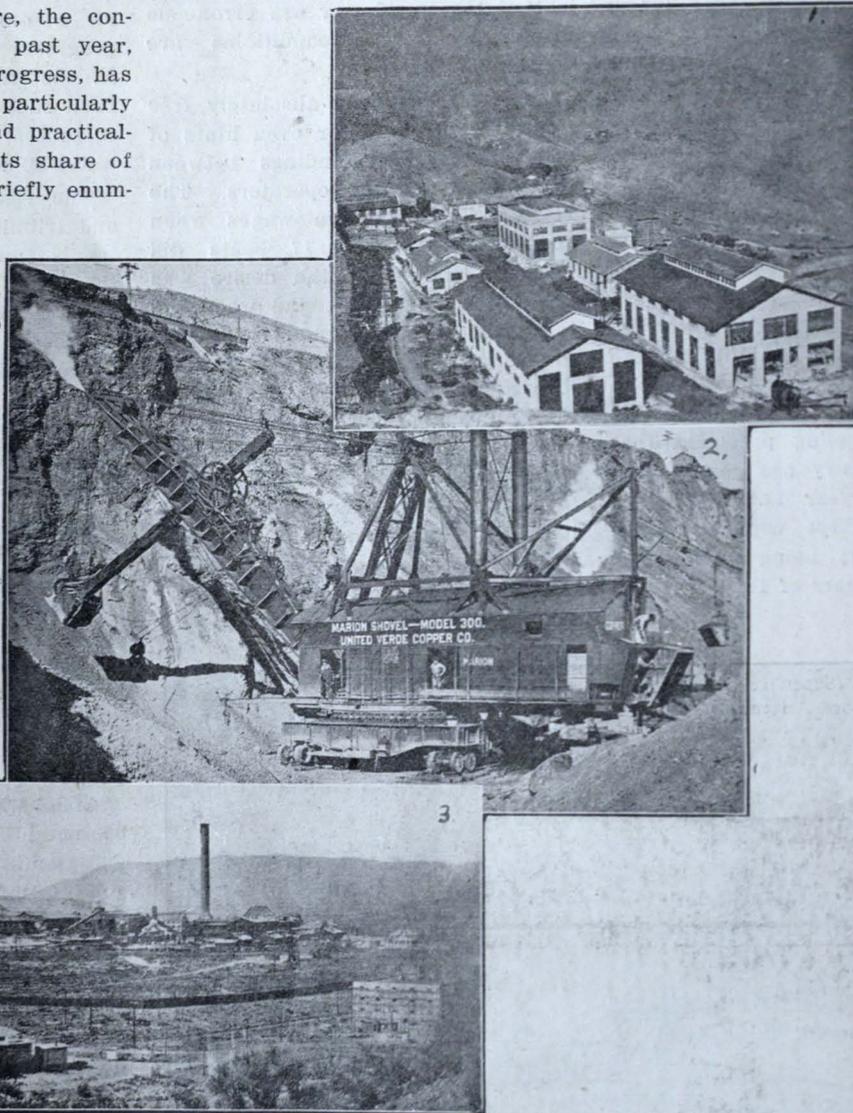
In Cochise County, the Hilltop Metals Company, Hilltop, have been continuing their development work on a rather extensive scale and the Central Copper Company at Dos Cabezas have progressed to the point where they have proposed a million and a quarter dollar construction program preparatory to production in the near future. They have continuously worked about 150 men during the past year. The stopping of the purchase of silver under the Pittman Act has rather stopped the silver mining in the Tombstone District.

In Maricopa County, the work of the Porterie Mercury Mining Company has progressed to a point of considerable interest with a prospect for early production of quicksilver. After a period of idleness the Kay Copper Corporation in the northern part of the county has resumed operations with sufficient financial strength back of it to insure a most aggressive development campaign.

In Pima County, the most significant news was the purchase of the El Tiro mine at Silverbell by the Calumet and Arizona Mining Company with the starting of operations on an extensive scale. The work of the Arizona Tucson Copper Company has also created some interest in mining near Tucson and the gold strikes south of Casa Grande have caused some activity in that territory.

In Gila county, the greatest advancement has come among the smaller mines in the work of the New Dominion Copper Company and the Louis D'Or Mining Company. The latter has reached the point where they are proposing the early installation.

(Continued on page 11)



General view of Clarkdale and the United Verde smelter. (Center) Steam shovel operations, using one of the largest steam shovels made.

In the Globe-Miami district, there has been a general remodeling of the milling plant of the Old Dominion Company, but the banner for extensive work goes to the Inspiration Consolidated Copper Company, where a new company town has been built with all modern improvements, a new large shaft, hoisting plant, etc. at the Porphyry mine and an extensive addition to their power plant has recently been ordered. Work is to be started shortly on a new large shaft for the Miami Copper Company. Incident to the work of the Globe Miami District has been the starting of the construction of the Mormon Flat dam by the Salt River Valley Water Users Association for the purpose of furnishing additional electric power to this and other close-by districts.

At Superior, the Magma Copper Company is putting on the finishing touches to a \$4,000,000 construction program which involves the remodeling and doubling of capacity of the milling plant, a standard gauge railroad to replace the narrow gauge from Magma to Superior, and a new

which started operation before the last of the year. This crushing plant, which cost about one million dollars, has practically all been installed during the past year. The United Verde Copper Company took advantage of the dull periods of 1920, 1921 and 1922 to do some very extensive construction work and they are today producing at the rate of about 100,000,000 pounds annually, or 20,000,000 pounds in excess of their previous records.

At Ajo, the 5,000-ton flotation plant of the New Cornelia Copper Company is nearing completion and several millions of dollars are giving them the last word in efficiency in flotation practice. The problem of water development has also been a considerable one and this has been solved during the past year. The early part of the year 1924 will see the New Cornelia Copper Company working upon their large reserves of sulphide ores.

In the Bisbee-Douglas district, the work on Sacramento Hill by the Phelps-Dodge Corporation was push-

dollars was spent in improving their crushing, sampling and bedding systems.

The purchase of the properties of the Arizona Copper Company by the Phelps-Dodge Corporation (Morenci



The sight of the original workings of the Verde Central Mines, Inc., showing the Prescott-Jerome Highway in the foreground.

Yavapai County, Arizona

By GRACE M. SPARKS

YAVAPAI County, Arizona, of which Prescott is the county seat, and Jerome the principal industrial center, has six distinct assets, which make it one of the most interesting spots in the South-

west as a place of residence, and when the word "spots" is used, an area as large as the State of New Jersey is embraced in the expression. Those six assets are—

- Citizenship
- Mining
- Stock Raising
- Farming
- Climate
- Scenery.

Those hardy pioneers who blazed the trail into Arizona, when the 10-year Apache "warfare" was at its height, are to be found in greater numbers in Prescott and Yavapai County than any other section of the State. Their families and grandchildren in numbers are also to be found as residents of the Mile High County and City. In recent years, just as the van of the pioneers swept over the country in the '60's so another class of pioneers, trail blazers of the West, from every state in the Union has taken place. This spirit, changed by conditions and circumstances, but with the same determination as the pioneers of the early days, is found in the men and women who are re-making the West. This coupling of the old and new pioneer makes a citizenship the equal of which is difficult to match anywhere in the country, and Yavapai County is proud of the timber found in its men and women.

Mining, the principal resource of Yavapai County, as it is the State of Arizona, despite the low price of copper, continues firm, with much interest being shown by mining men, prospectors and investors in the various districts, such as the Walker, Crown King, Hassayampa, Turkey Creek. The principal district of Yavapai County is that of the Verde, with Jerome, Clarkdale and Clements as the active centers. No doubt exists today but that the Verde Central is the third big producer of the Verde District, where are located the United Verde and United Verde Extension copper mines which have produced over, and well over \$100,000,000 worth.

The impetus which has been given to the mining industry generally throughout the county cannot be minimized as the result of the Verde Central's activities. Smaller prospects and properties in the Verde District and throughout the county have taken on new life.

Attractive Yavapai County has been and will be to the prospector, who finds in her extensive mountain ranges districts as yet very slightly ex-

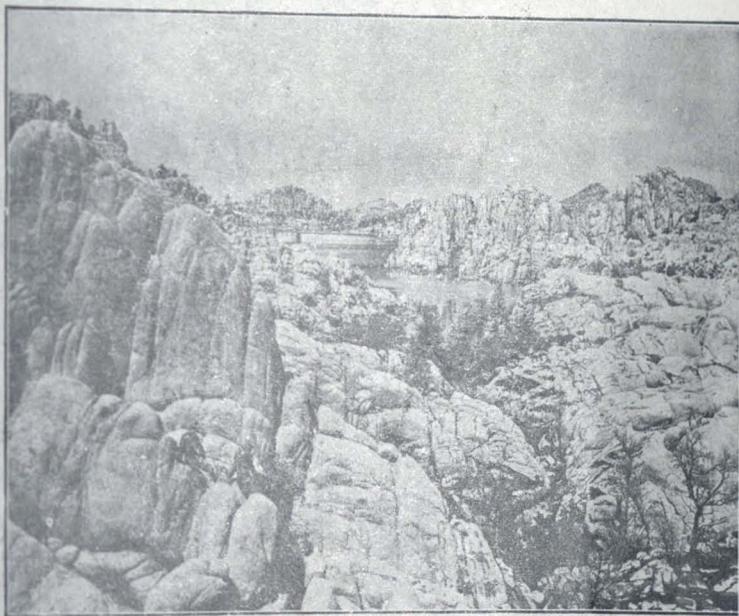
plored. Veins are here as rich in gold and silver as those which dazzled the pioneers of the '60's and '70's, merely waiting for those persons industrious and tenacious enough to tear away the covering which conceals them from the careless seeker.

To another class of mining men, there is presented an even more attractive opportunity. This is found in the thousands of discovered prospects whose owners, having located the croppings of valuable ore and having developed the property as far as their varying resources would permit, must now turn over the work to individuals or companies with the capital necessary for their complete development and equipment for economical operation. In this class of embryo mines, the mountains of Yavapai are particularly rich. Many of them amply deserve further investment and will repay those who,

antimony, vanadium, molybdenum, and in fact every metal in the mineral kingdom, all occur to some extent in the ores of each range named, but usually either one or more of these markedly predominate.

Onyx, marble, iufa, granite, red sandstone, limestone, cement, clays and fire clay are also found in large quantities in this district. As a proof of the superior quality of the native granite and as an incentive in the opening up of a large quarry in Yavapai County, the Board of Supervisors caused the entire new court house to be faced with native Yavapai County granite from the hills nearby. This is said to be the finest public building in Arizona.

The United Verde Extension Mining company, numbering among its stockholders hundreds of residents of Arizona and principally Yavapai County, will pay its next quarterly



GRANITE DELLS, NEAR PRESCOTT

with good judgment and capital, shall seek them out and convert them into mines. The price basis upon which these properties can be obtained is usually very reasonable.

There are also exceptional opportunities existing in the form of properties whose development has been advanced to a point where the great uncertainties of mining having been eliminated, where the amount and occurrence of the ore bodies have been defined with considerable accuracy.

Broadly speaking, the ledges so far discovered lie in and near three mountain ranges: the great Yavapai Schist belt, with which the name of the famous Jerome and Verde districts may always be identified; the Bradshaw Range, including the famous Crown King Section, which is more active at the present time than at any other period in its history, and the Sierra Prieta Mountains.

Of the most sought metals—gold, silver, copper, lead, zinc, tungsten,

Groom Creek country and the Minus Mountain district. Among the others were 8,150 picknickers and 1,775 campers.

Work on the Prescott-White Spar road project, for seventeen miles through the Prescott forest, is under way. This highway project is considered the beginning of the most important highway in Arizona, for the reason that it represents the first concerted effort to connect the Grand Canyon of Arizona, the immense tourist travel of Northern Arizona on the National Old Trails, with central and northern Arizona and the southern section of Arizona, from Phoenix to Tucson, Bisbee and Nogales.

The Lee Moore Construction Company, to which was awarded the construction of this highway, now have their large new Bucyrus 30 B Diesel caterpillar type shovel in operation on the road. This machine was specially constructed by the Bucyrus Company to meet with conditions that for many years have delayed the construction of highways where fuel and water are hard to obtain. Already this gigantic human machine is moving over 1,000 yards of earth and rock daily.

Arizona is awakening to the importance of improved highways and while as a State it can boast of some of the finest highways in the Southwest or the United States, yet with the spirit of the West, every one is interested in making the highway system as useful as possible.

The building of the Ash Fork-Prescott highway is nearing completion. This road is a boulevard, and one of the finest examples of road building in the State. Residents of the Salt River Valley will be amazed at this road, when during the summer, so many journey north to points of interest.

Now under construction is the Camp Verde-Fossil Creek highway. Few sections of Arizona can boast the scenic grandeur of the Verde country. With Montezuma Castle, Montezuma Well, the Soda Springs, the wonderful Red Rock country, Minus mountain, the Jerome-Prescott highway, Oak and Beaver Creeks, there is now being opened up a country in scenic wealth, which will even amaze those who have pondered at the vastness and beauty of the Verde country as they know it. The Arizona Power Company, with Francis Viele at its head, built the first road into the Fossil Creek country. Now with Yavapai County bond issue money for the improvement of its highway system, there is being expended \$232,500.00 for a road into that remarkable district. Aside from its marvelous colorings, fossilized formations, the Verde River, caves, etc., one of the most interesting of the points of interest, aside from the gigantic power plants, is the Verde Hot Springs.

dividend of \$1 a share to stockholders of record on January 3rd. For 1923 the United Verde Extension has paid \$3.50 a share in dividends, making a total of \$3,675,000. This is made possible by its extremely low production costs, as the ore mined is exceptionally high grade.

Outlook for a splendid year insofar as grazing is concerned in Yavapai County is most bright. Due to the recent storms, insuring sufficient water, coupled with the fact that the mountains are covered with snow, stockmen generally feel that the question of feed will be solved during the coming months.

Prescott is noted for the beauty of its great forest country. A total of 16,775 persons visited the Prescott National Forest during the past summer, according to the annual recreational report of the forest service. Of this number of visitors, 6,350 were transient motorists, while 500 were resort and hotel guests. The majority of the visitors went to the

Due to the excellence of its year-round climate, Prescott is fast becoming known not only as a spot lavishly endowed by Nature, but as a noted health resort as well. Those who enjoy outdoor life can see it at its best in the Mile High City. The Yavapai County Chamber of Commerce, located at Prescott, gives every assistance possible to strangers and tourists interested in becoming located in the country, and anxious to view its scenic attractions. Illustrated booklets will be mailed upon application, covering not only the resources but all phases of activity in Yavapai County, including climatic advantages and scenic attractions.

On the second Friday in June of each year, there is annually held at Prescott the famous dance and ceremonials of the Smokis. On July 1, 2, 3 and 4 the Prescott Frontier Days, with cowboy sports on a high, competitive basis, are held. Fair, open competition to the rangers of the world is invited. These two civic entertainments are educational institutions and attract thousands to Prescott, often named the "Jewel of the Mountains."

ARIZONA'S EDUCATIONAL FACILITIES

(Continued from page 5)

For year 1922-23	Apportionment
Salaries and Wages.....	\$ 536,568.66
Operation	190,945.67
Maintenance	40,526.00
(Equipment)	74,539.67
Capital (Balance for Library Building	167,789.00

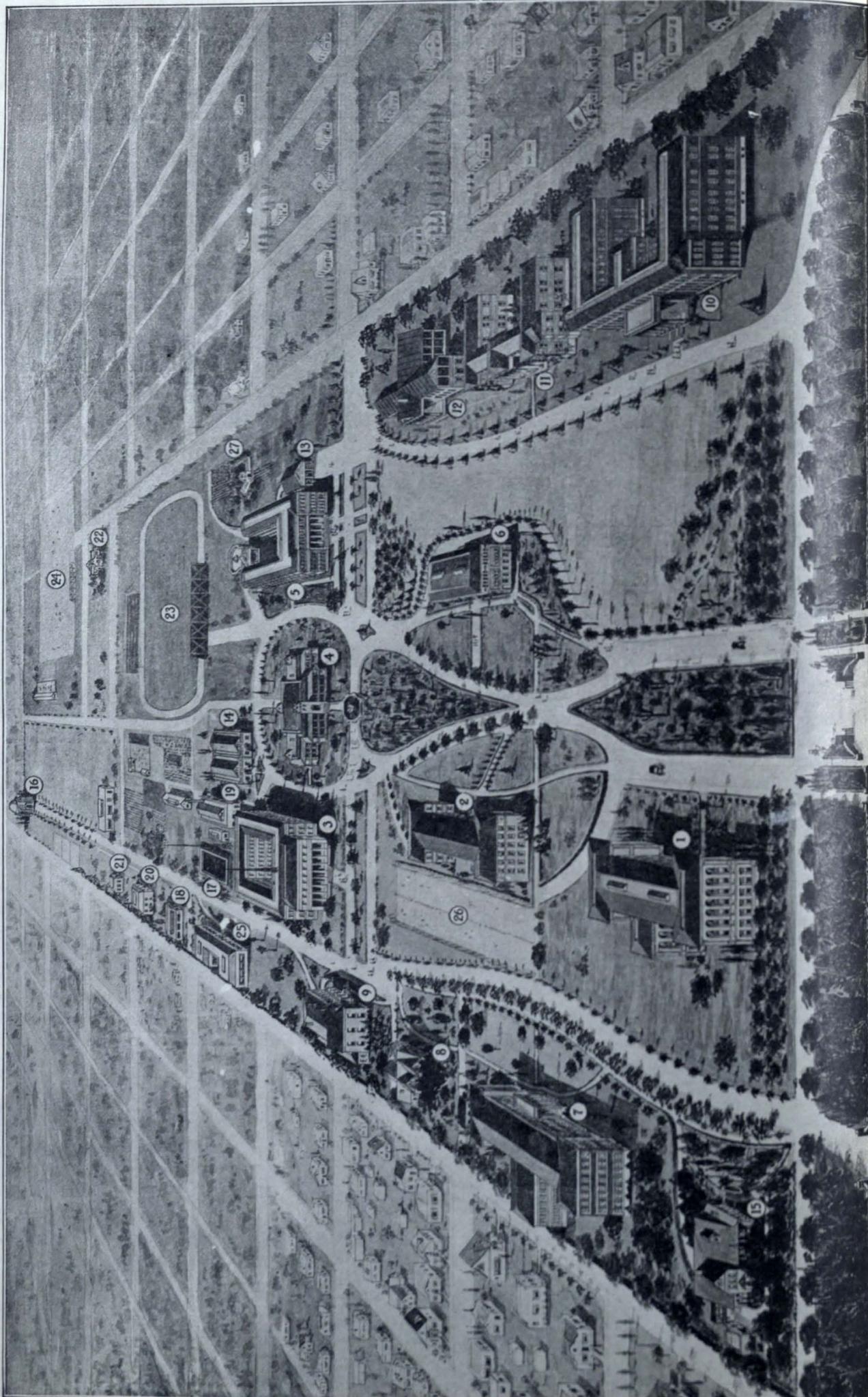
\$1,010,369.00

The University is situated at Tucson, one of the largest cities of the state, on two main railroad lines. Its establishment was authorized by a legislative act, passed in 1885. It first opened its doors to students in 1891, with a faculty of eight professors and an enrollment of thirty-one students, only nine of whom were of college rank. Its growth was slow under the handicap of territorial conditions, but during the short period of statehood it has made rapid strides of advancement; its thirty-seven faculty members of ten years ago increasing to one hundred seven members last year, and its total student registration from three hundred thirty-one to two thousand, one hundred eighteen (2118), and keeping pace with this has been an increase in all the facilities needed for work of a high order in its College of Letters, Arts and Sciences, Mines and Engineering, Agriculture, Education, and its departments of Law, and Home Economics, and its school for the deaf, dumb and blind.

Enabling Act Endowment

The state of Arizona was born under some lucky stars in the firmament of her Enabling Act. They help us to read her educational horoscope. The following from the records of the State Land Department may be of interest as bearing on Arizona's Educational resources and facilities both present and future:

acres	Lands selected	199,521.86	and Blind granted.....	100,000.00
Lands granted to Normal Schools	200,000	Common School Lands	Selected	98,901.37
Lands selected	199,559.28	Estimated area of sections 2, 16, 32 and 36 out of each township in the entire state	Agricultural and Mechanical Colleges granted	150,000.00
Lands granted University, Act 1881, (not under Enabling Act)	46,080.00	Lands selected (estimated)	Selected	149,484.63
Lands selected	44,632.59	School of Mines granted..	State Charitable, Penal & Reformatory Institutions granted	100,000.00
Lands granted University (June 20, 1910).....	200,000.00	School for Deaf, Dumb	Military Institute granted Selected	100,000.00
				99,141.80



AIRPLANE VIEW OF UNIVERSITY OF ARIZONA, TUCSON, ARIZONA

Arizona's Mining Activities

(Continued from page 8)

tion of a 50-ton testing plant preparatory to the construction of a large mill

In northern Yuma County the work of Dick Wick Hall on the Apache Chief, and the work of the Wenden Copper Company has attracted considerable attention. The leaching plant of the Arizona Standard at Parker is nearly completed and will probably be in operation during the early part of 1924. The Swansea lease has been running most of the year, shipping ore to the Humboldt smelter.

In Yavapai County, the feature has been the work of the Verde Central Mines, Inc., which now seems to be assured of being the third large mine of the Verde District. The operation of this property has now been taken over by the Calumet and Arizona Mining Company. Much interest has been created in the work of Western Chemicals, Inc., in getting

responsible for productive milling operations.

Arizona is essentially a state of large mining enterprises, talking in millions of dollars and in millions of pounds. In viewing any industry in general all things become comparative and mining properties that would be worthy of columns of space in some other states become comparatively obscure in reciting the mining industry of Arizona. We pass lightly by hundreds of enterprises that would look large in Colorado or California, for instance, or enormous in Nevada with but a few words, yet space does not permit of the telling of the whole story of Arizona mining or yet to recount the happenings of an individual year in other than but a general way.

We think of Alaska as an immensely wealthy mining state, yet one county in Arizona produces more wealth annually than does Alaska. We

have county, the silver of Tombstone, the asbestos of northern Gila county, the sodium sulphate of Yavapai county, the coal in Navajo and Apache counties, the manganese of northern Yuma county, the molybdenum of northern Pima county, the mercury in Maricopa county, the tungsten of northern Cochise county, and many other potentialities but they are, with the copper, the things that make Arizona occupy its present position as a great mining state, still on the uphill in production and with greater prosperity before it than anything it has yet experienced.

It is still the state that has much to offer eastern capital seeking channels for development with the prospects of adequate return, for it has but started. It has a wealth of power to be developed from its turbulent rivers, hundreds of thousands of acres that may be made to blossom by irrigation, millions, yes, probably

neighborhood. A Woman's Club building should mean more to a community than merely a weekly meeting place for a few selected women. The General Federation of Woman's Clubs sends out the call: "Open your club doors, make all women welcome, make of them social centers." The influence of any club house should be felt throughout the neighborhood. In this way a new appreciation of the resources and needs of the community will be gained—a keener sense of responsibility for its welfare will be felt, and with a growing conception of the club, new meaning and new vigor will be given the work. Many other uses for the club house have been found possible. Clubs in various communities have made the club house a public forum for the consideration of racial, political and public health problems, and have started evening schools for civic and vocational training.

Through the Women's Clubs our towns have been made cleaner, our homes more attractive, vacant lots improved and trees and flowers have been planted. Where these improvements greet the eye, the visitor may be sure a progressive Woman's Club exists.

The women of Arizona are banded together to keep a watchful eye on all civic matters and to give a helping hand wherever it is needed.

The State Federation with a membership of 3500, stands ready to assist in the promotion of State progress and State expansion.

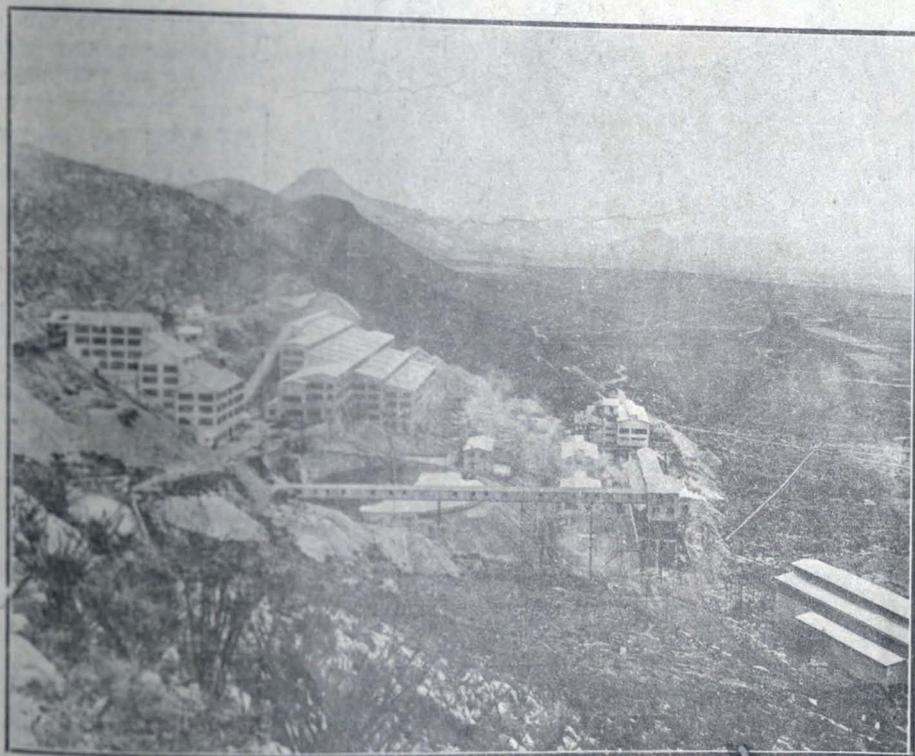
WONDERS OF THE RADIO TO COME

The sales of the radio equipment in this country will amount to \$150,000,000, according to statement by David Sarnoff, vice president and general manager of the Radio Corporation of America. He foresees in the near future broadcasting from great central stations so connected that it will be possible to reach 50,000,000 people.

These superpower stations, he says, would cost \$5,000,000 a year to maintain and he proposes that the money be raised by a tax of one per cent on the sales of radio apparatus. He believes that the people will pay such a tax gladly for the opportunity to listen to the world's best talent in grand opera and addresses by famous men including educational features of established value.

The only obstacle in the way at present, Mr. Sarnoff says, is the cost of maintenance. He calculates that the tax of one per cent on sales of equipment would yield \$5,000,000.

The scheme opens up great possibilities in broadcasting. Reaching 50,000,000 persons at once through the air would have been considered something entirely outside of human accomplishment only a few years ago. Today it can be easily understood as a near probability.



The Concentrating plant at the Phelps-Dodge Corporation, Copper Queen Branch, started in May, 1923.

ready for production the enormous salt cake deposit near Camp Verde, and this company will shortly be ready to produce on 300-ton daily basis and furnishing the various industries using salt cake with a superior Arizona product. The work of the Sheldon mine and others around Walker have also held a place in the limelight.

In the gold country, around Oatman, Mohave County, there has been a great deal of work in a small way, several new milling plants constructed, several more under way and a number of others in prospect for the near future. The Tom Reed taking over the property of the Katherine Mines is most significant and it looks as though Mohave County would have another gold producer of consequence in the near future. The Dean and McCracken mines have both been

think of Montana with its great Anaconda Copper Company, Michigan with its deep Calumet and Hecla, or Utah with its enormous Utah Copper Company as being great copper states, yet Arizona produces more copper than all three of them put together. We think of Maricopa County as a great agricultural county, yet one mine has a greater assessed valuation than the whole of the largest agricultural county. We think of the wonderful silver state of Colorado, yet Arizona produces more silver annually. We think of Nevada with its Goldfield and Tonopah as a great producer of gold, yet Arizona produces more of that metal.

The magnitude of the copper mining industry in Arizona rather obscures many things that might otherwise seem important, such as the gold production of the mines of Mo-

billions of tons of ore that is awaiting capital, improved metallurgical science, lower power costs and other results of capital to make it available and profitable, and it has the raw materials and potential power to make another center of industry.

THE PART THAT WOMEN'S CLUBS PLAY IN THE LIFE AND UP-BUILDING OF THE STATE.

(Continued from page 3)

were overlooked? Fortunately a change has taken place in the minds of club members, who are demanding more and more a wider use of the club house. The response to this demand has taken form in recreation and good fellowship, not only for the members themselves but for all the

FARMERS AND RAILROADS

Our country cannot and should not get along without prosperous agriculture and transportation. We cannot have one prosper and not the other.

A great deal is being written about the welfare of the farmer, and deservedly so, because upon his prosperity depends the prosperity of the country. It sometimes happens that the farmer, for brief and occasional periods, seems to get the best of it, but such a happening is comparatively rare.

The normal state of things is that the farmer is the "under dog," with little redress for his wrong. Farmers invest more capital, take more chances of losing and work harder than almost any other producer.

It is the produce of his labor which makes up the bulk of our trade and which furnishes the basis of life, prosperity and happiness.

Hence it is with no prejudice against the farmer that attention is called to the existence of other problems equally in need of correction.

The farmer, and the public as well, have a fashion of blaming all the trouble upon railroad freight rates. There is no doubt that a reduction of 75 per cent in freight rates would be of temporary material benefit to the farmer.

So would breaking open the bank vaults of the country and dividing up their contents in the country regions. But then what?

Prosperity of the country is just as surely dependent upon prompt and reliable transportation as it is upon prosperity for the farmer. It would be altogether unwise to attempt to purchase prosperity for the bankrupting the railroads.

OIL MOVES WORLD COMMERCE

For the carriage of goods between nations the dependence will remain on merchant shipping, and one of the incentives to the use of oil fuel will be brought about by increased competition.

Oil is the more economical fuel, for the reason that, other things being equal, one ton of oil fuel as now used in Diesel engines drives a vessel three times as far as one ton of coal burned under the boilers of a steamship and yet oil is twice as efficient as coal when the ship has water-tube boilers and geared turbines.

Whether we think of oil as used for Diesel or for steam engines, it certainly looks as if the future Mercantile Marines of the world will be in the main oil-driven. The possession of ample oil wells in other parts of the world may, and probably will, get over the difficulty, but it is one thing to have coal fields at home, and quite another consideration to fetch oil from the other end of the earth.

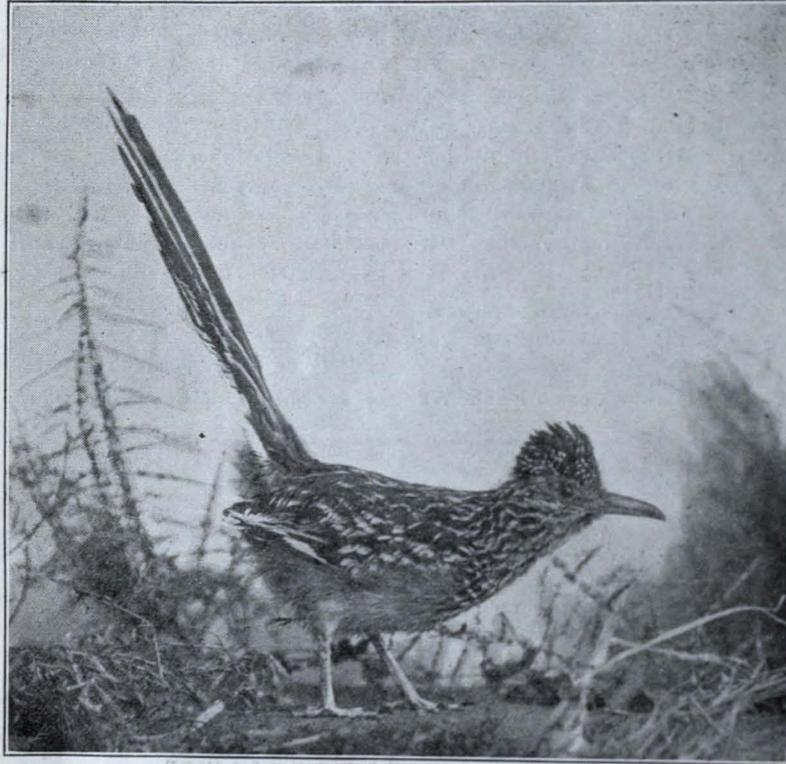
In any forecast of the world's mercantile marines due regard must therefore be paid to the use and supply of oil. In oil development the United States is particularly fortunate.

USING OLD ROADS

Figures credited to the National Automobile Chamber of Commerce show that there are in this country 2,941,294 miles of public roads of various types; 430,000 miles of these roads have some form of improvement.

The day is here when hard-surfacing is the only method of saving our main highways and principal "feeder roads" from destruction by rapidly moving vehicles.

Of the 430,000 miles of highways that have some form of improvement, there are thousands of miles that



have been surfaced with rock on a good grade. Road engineers have found that instead of tearing up mile after mile of such roads, it is entirely practical and, from the standpoint of economy, highly essential to surface this compacted rock foundation with water proof asphaltic concrete.

Thus are old roads salvaged and a permanent highway constructed at an enormous saving to the taxpayers. The shock absorbing qualities of asphaltic concrete protect the old road base in a highly satisfactory manner.

AUTOMOBILE CLUB OFFICES

Offices are maintained by the Automobile Club of Arizona in 31 towns and cities of the state, for the purpose of dispensing information to the public and to render service to the members of the club. Here the tourist or any person desiring information will be cordially received and the desired information cheerfully furnished. Prominent signs have been placed on the street in front of the club office, so the stranger will have no difficulty in locating the office in any of the following places:

Phoenix, Main Office
 Chamber of Commerce Bldg.
 Tucson, Branch Office
 Chamber of Commerce Bldg.
 Nogales, Branch Office
 Chamber of Commerce Bldg.

"SAFETY FIRST—
COURTESY ALWAYS

Another evidence of the human element in industry can be seen in the "safety-courtesy" campaign of the American Telephone & Telegraph Co., a pioneer in movements for safety and service to the public.

"Safety First" and "Courtesy Always" are two new slogans adopted by the company and being spread among employes of its subsidiary companies. The slogans appear on bright red metal plates for use on its army of motor vehicles and employes of the company are contin-

SURE WAS EFFECTIVE
 "I suppose Henry," said the old gentleman to his new son-in-law "that you are aware the check for \$50,000 I put among your wedding presents was merely for effect."
 "Oh, yes, sir," responded the cheerful Henry. "And the effect was excellent. The bank cashed it this morning without a word."—Vanity Fair.

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GIFT OF THE DESERT

By RANDALL PARRISH

(Continued from last issue)

"Why this is simply marvelous," she exclaimed. "I did not appreciate what it meant from up there. You have been down here before, you said? You—you do not believe you are the only one who has made this discovery?"

"No; that is hardly probable. There were reasons why it was impossible for me to determine the truth when I was here before, yet I found evidences that others had been before me—the remains of a camp fire, an exploded cartridge shell, and even the imprint of cattle. I have no wish to frighten you, Miss Deborah, but my idea is that probably this place has been, and perhaps still is, a hiding place for thieves."

"Cattle stealers, you mean?"

"Yes, and munition runners. This whole border is honeycombed with that sort of thing, and this hole is certainly an ideal hideout. Come, let's sit down here and eat what we have, for I am not going to risk a fire, and I'll tell you a theory I've worked out."

"Please do."

The bag of food the girl had secured from the ranch kitchen was carefully strapped to the saddle of Sultan. Kelleen procured this and spread the contents on a strip of grass. They were both eating when he resumed speech.

"I am inclined to think," he said gravely, "that this has been a rendezvous for that sort of traffic for years. I don't believe many have known about it, or else some whispers would have reached me, but this particular section of the border has been a sore spot for years. Someone stumbled on this place just exactly as I have—perhaps several somebodies—but my present notion is that the discoverer was either Bob Meager, or one of the reputable gang he has with him. His determination to get control of the ranch at his father's death, the shows he has brought there from across the line, and Garrity's deep interest in the affair, all combine to make me suspicious. Do you see? The ranch, and this hole, together, make an ideal outfit for running either cattle or munitions across the border, and one of those fellows over there have been at that job for years."

"Then how do you dare come here with me?"

"Because it alone promised security for this one day. Tonight we'll go on, and we could not travel across the desert in daylight without being seen."

Her eyes were on his face inquiringly.

"You dislike Bob Meager very much? Was that why you were so willing to help me?"

"Not altogether; it may have had aught, I confess. Now, however, that thought has gone entirely."

"And Judge Garrity?"

"He is utterly despicable."

"Yet you seemed very friendly with him only last night. On excellent terms?"

He smiled good-naturedly.

"You are quite a cross-examiner, Miss Meredith. Sometimes, you know, it becomes necessary to play a part in life. What is the cause for all this crowd questioning?"

"I hardly know myself, but it is all so strange, and has happened so suddenly. I am just beginning to think of it. How did you happen to be in the Thirty-third division—were all Illinois troops?"

"From what command?"

"The regulars."

"Was that not very unusual? You—you were surely an enlisted man?"

"I did not say so," he smiled back; "and now that you drive me to a confession, I might as well make a full breast of it. I was transferred to take command of a company."

"A captain?"

"Yes."

"Why!" She drew in her breath sharply, leaning forward with new



She Drew in Her Breath Sharply.

eagerness. "Then surely you are not now what I thought you to be—an outlaw, a renegade? You are not really the 'Frisco Kid'?"

"Oh, yes, I am. At least I am all the 'Frisco Kid' there ever was, to the best of my knowledge, although I fail to line up entirely with the reputation so kindly given me by 'Pop' Reynolds. The 'Frisco Kid' is an entirely manufactured character, made for a practical purpose. Do you grasp the idea?"

She shook her head, but her eager eyes belied the action.

"You have a glimmer, nevertheless. I'll explain. This portion of the border has been a hotbed of outlawry for years. It has baffled every commanding officer assigned to this district. We had no information to work on; suspects were numerous, but proof lacking. Finally a plan of action was evolved, but to carry it out successfully, a desperado with an established reputation as a bad man was first of all most essential. With this end in view the 'Frisco Kid' was carefully put on the stage. Newspapers along the coast, and near the border began to note his exploits; dispatches regarding him were sent east; rewards for his capture, dead or alive, were posted. It was intimated, finally, when his name had become sufficiently familiar, that he had escaped into Mexico, and then that he had been seen again in this neighborhood. Troops were dispatched to run him

down, and word to that effect scattered broadcast on both sides the line. You see the purpose of it all?"

"To win the confidence of the real gang?"

"Exactly; and it worked. The end is already in sight."

"But who, then, are you?"

"Daniel Kelleen, just as I told you, a captain in the —rd cavalry."

"You—you volunteered for this service?"

"Yes; you see it was impossible for the department to use any officer who had been stationed lately along this border. Such a one might be immediately recognized, and the whole scheme ruined at once. At the same time, whoever was chosen to play the character must have intimate knowledge of the border. I met the requirements fully, as I had served here ten years ago as a mere boy, and knew the country fairly well. So here I am, the 'Frisco Kid.'"

Deborah held out her hand impulsively.

"I'm glad you told me," she said in all frankness.

CHAPTER IX

A New Viewpoint.

She had been sleeping for nearly two hours, with head supported on a saddle, the steep wall of the canyon on one side of her and the valley itself shut completely off by a thick growth of shrub. She had not realized how tired she was, and, in fact, rested there some time in this nook Kelleen had found, staring with wide-open eyes up at the strip of blue sky, her mind still active. The knowledge of who this man really was had brought her instant relief, and a new sense of safety in his presence. So her heavy eyes closed, and she slept.

Something must have awakened the girl suddenly, for she sat bolt upright, with eyes wide open in fright. Kelleen had disappeared, but beyond this no change of any kind was apparent. The entire scene was so calm and peaceful that Deborah's heart ceased its first violent throbbing, and she even smiled at her earlier fear, and arose expectantly to her feet.

What had become of Kelleen? Through the tree branches behind which she had been concealed Deborah searched the full length of the chasm within reach of her vision, but discovered no trace of his presence. It was not likely the man would be absent long. It must already be noon by the sun, and, actuated by a desire to do something, she finally began to arrange a meal for his return. She had opened the bag of provisions, when suddenly her eyes caught sight of something moving far below, and to her right, objects at first hard to distinguish, and then quickly discerned as two horsemen, emerging from the very cleft in the rocks where she had decided the canyon probably ran. They came steadily on, growing more distinct each minute, yet still too far away for recognition.

She crouched lower behind her screen, and waited breathlessly. Two, what could that mean? It seemed highly improbable that Kelleen could have encountered a friend in this spot—a man in whom he had faith—who was returning with him. If this was, as he so evidently believed, a hidden lair of outlaws, a rendezvous

for border crime, it was hardly possible he had met with any comrade here, if—he was really what he had claimed to be. The thought of that "if" struck her like a blow. But was he? was he? Her eyes strained to watch every movement of those approaching horsemen. She could perceive enough already to be certain that Kelleen was not one of the group; they were both Mexicans, or at least so attired, and their mounts bore Mexican trappings. Little as the girl knew of the frontier, she at once realized the danger of being discovered by such men.

Deborah was conscious of trembling in every limb, as she crouched there, behind the leaves, instinctively grasping the only weapon in her possession. Then she suddenly recognized one of the riders as Juan Sanchez.

They had followed her then, and were seeking her now. There could be no possible doubt as to Sanchez' mission. How the fellow had reached there so quickly, and why it even had been suspected she had sought this remote spot of refuge, were unsolved questions, yet it was highly probable that searching parties had been dispatched in all directions, and the Mexican had been the one whom Fate had headed that way. Anyhow she could not speculate as to how or why. She must find hiding place somewhere among the rocks.

Her eyes traced the rugged bluff hopelessly; to attempt scaling that would only bring her into full view, yet there was a fringe of thick bushes below into which she might plunge. This seemed the only hiding place available, and she crept through the thick fringe of brush into the shadow. The two horsemen came slowly, cautiously, up the slight slope, staring about them suspiciously, yet finding nothing at the summit but a bit of trampled grass to tell that the spot had been occupied previously.

Deborah, secure in a cleft of the rock behind a five-foot screen of chaparral, crouched motionless, with ears strained to detect the slightest sound. She was unable to see, but could hear plainly, and there was no difficulty in recognizing the voice of Sanchez.

"Whatever do you suppose has become of them, Jose?" he asked complainingly. "They were to have come yesterday, you tell us, and yet they are not here."

"But someone is, senor—see, there has been camp made."

"That was the guard; the ranch brand is on the pony grazing yonder; I took note as we rode by. I wonder where in h—l the fellow has gone? But he has naught to do with Casebeer's outfit. The gulch is empty, except for the lad we met below."

"And what does he do in here, senor? Who was it you call him?"

Sanchez laughed mirthlessly.

"Hiding out, Jose; there is no reason to fear that guy. He's the 'Kid.'"

"The 'Frisco Kid'?" Sure, I hear of him. They say he held up the Los Colos stage."

Sanchez laughed.

"'Tis not all they say. He is the devil's own, if half the tales be true—a smooth-spoken boy enough, but not the sort to make sport of. Meager knows him—aye!" and he slapped his knee roughly at the happy thought,

ARIZONA INDUSTRIAL REVIEW

Yuma—Work started on 22-mile stretch of highway east toward Indian reservation.

Phoenix—Cotton ginned throughout Arizona prior to January 1 totaled 62,371 bales.

Arizona shipped 424 carloads of cattle into California in 1923, according to first annual report of Los Angeles Union stock yards.

Douglas—After spending \$1,000,000 in development work, Hill Top mine is now placed on production basis.

Oatman—Three gold mills now under construction for Tollurdo, Oatman United and Gold Dust mines.

Pearce—Sugar Beet production in Sulphur Springs valley this year to be ten times greater than last season.

Phoenix—Arizona Cattle Growers' Association applies for freight rate reduction on carload lots to California points.

Bisbee—Alto Mining Company to increase force to 25 men, rich gold ore reported uncovered.

Quartzsite—High grade ore body reported opened on 200 level of Bowyer gold mine.

Camp Verde—Western Chemical Company plant practically ready for production of salt cake.

Groom Creek—New ore discovery opened in Wild Rose mine, installation of mill under way.

Mesa—Water users association constructing two power plants, widening Eastern canal and cutting new canal to connect with Consolidated at site of power plant.

Phoenix—Demand and supply of all classes of labor throughout Arizona reported unusually well balanced for this time of year.

Superior—New smelter of Magma Copper Company to be ready for operation late in April.

Bisbee—Three banks in district showed \$504,485.58 increase in checking accounts December, 1923, over December, 1922.

Wickenburg—Abe Lincoln mine in Constellation section running steadily with 20 men on payroll.

Safford—Safford Light and Power Company granted right of way for extension of system to Thatcher.

Ajo—New Cornelia Copper Company ready to start operation of new 1000-ton mill.

Tucson—Tucson Gas, Electric Light and Power Company announces reduction in power rates to district farmers.

Chloride—Chloride Mining Company making arrangements to finance construction of flotation plant.

Salome—Arizona Apache Mines Company planning to develop at depth, exceptionally rich ore opened.

Williams—Tusayan Poultry Association organized to handle marketing and improve industry.

Bisbee—Calumet & Arizona Company to have new pumping plant in Junction shaft ready for operation in March.

Yuma—Owing to increased efficiency of fire department local insurance rates reduced 25 per cent in past few months.

Safford—Contract to be awarded for paving 7 miles on highway to Safford.

Holbrook—Cady Lumber Company pushing construction of railroad into virgin forest.

Bisbee—Shield-Hugh lease on Copper Queen mine sinking shaft additional 50 feet and installing electric hoist.

Johnson—Keystone Copper Mining Company to continue development on greatly enlarged scale.

The Near East Relief, having been assigned to Asiatic territory, feels that it is not obligated to operate in Greece so far as the adult refugees are concerned; the Red Cross has discontinued work there. The Greek Government is straining every resource to deal with the situation, but the refugees are facing a winter of starvation. There is this to be said. The Red Cross did excellent work in Greece and is deserving of much praise—which it has had. It is, however, in our opinion, open to criticism for leaving with its task less than half accomplished, and for permitting the public to believe that the need for outside help was over.

Near East Relief Part

The same must be said of the Near East Relief, so far as its work for adults is concerned; for while the work of that organization has been and still is epic in its quantity and quality, it lies open to criticism in that it has stayed out of adult work in Greece on an excuse provided by what has now become a mere technicality. The need for relief is still immediate and crucial.

For the first time in history the Christian minorities are out of Asia Minor, only their shattered remnants remaining to be saved. According to official testimony, the Turks since 1914 have slaughtered 1,500,000 Armenians and 500,000 Greeks, men, women and children. With these we need have no further concern except as their fate throws light upon the future. They might have been saved, but they were not. We have, however, a direct responsibility for the 1,150,000 Greek and Armenian refugees who had arrived in Greece up to March 1, 1923, as well as for the 214,000 who were on the way there at that time.

America's Necessity

The American public has spent during the last 10 years more than \$86,000,000 specifically for relief work in the Near East. This expenditure has been necessitated, not by an "act of God," but solely because of the Turkish policy of torture and extermination. If the American public is to be spared the necessity of spending still more for relief of this kind through the years to come, two definite steps must be taken.

First, the Christian minorities, refugees as they are situated today, must be given immediate help. Second, once the period of acute distress is past, they must be established on a basis of permanent security and opportunity. Mankind in general, and the American public in particular, lies under a direct obligation to see that this is accomplished.

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"and that is why the lad is here, no doubt. I have it now; Bob could not come himself, Jose, so he sent this fellow. But why the hell didn't he tell me, I wonder?"

"Who tell you—the 'Kid'?" "Either one of 'em; I like to know what I'm bein' stacked up against on a job like this. Casebeer's lucky, but his outfit this trip would be a mighty rich haul if he should happen to fall down."

"Guns?" "Ammunition, and booze for Villa; some combination that. It is to go over the border tonight, and a nice wad of money comes back. That will be the 'Kid's' job, perhaps, if Meager doesn't show up by dark; we haven't any orders beyond here."

"You think Senor Bob maybe would send him to bring back the money?"

"Sure; it's fifty-fifty with Casebeer, and 'Frisco' is all right. He's square as they make 'em, I've always heard. Raises hell, of course, now an' then, but he never double-crossed anybody. Ain't that him roundin' that bluff yonder? Sure it is—ridin' this way. I'm goin' to ask him straight when he gets here."

Deborah, frightened by what she heard, lifted herself slightly so as to see better up the narrow valley. The



The Approaching Horseman Was in Plain View.

approaching horseman was in plain view, and, even at that distance, the girl had no doubt as to his identity. Her very heart seemed to cease beating as she knelt, anxiously watching his approach, the horse loping steadily, the man swaying gently to the movement of the animal. Who, indeed, was he—this Daniel Kelleen? this "Frisco Kid"? Was he a real man in whom she could trust and believe? In whose honor she could confide?

Or was he what these ruffians so confidently proclaimed—an outlaw, a desperado of the frontier, an escaped felon, hiding from justice, and even now engaged in the committal of crime? These fellows took it for granted that he was present on the

same criminal mission as themselves; he had deliberately left her, and rode away seeking traces of Casebeer's gang in the valley—seeing there was no escape from the one conclusion, that he was part of the conspiracy. He had lied to her, deceived her, told her a fairy tale, laughing at her credulity, while coldly going forward with his own plans.

Deborah grasped all this almost instantly, unable to perceive any possibility of escape from the net. Her limbs trembled, yet she could only kneel there in silence, watching the approach of the rider. A wild hope thrilled into her heart, that perhaps this man was not all bad; that whatever his real life might be, he may have meant to be square with her, and would yet protect her. Surely he never had revealed her presence to these others; perhaps that was why he had not returned with them, hoping she might see the strangers, and hide. His first words sent a thrill through her heart—he was playing a part for her protection.

He reined in his mount sharply, glancing keenly about, but with face expressionless as his eyes finally encountered the two awaiting him.

"Whose horse is that?" he asked inquiringly, indicating the grazing animal.

"I know not that, senor; 'tis Meager's brand."

"I can see that for myself, but it was not here when I came by. Was anyone besides you two sent in here on this business?"

"No, senor," there was a touch of deference in Sanchez' voice most unusual, Deborah was quick to note and appreciate. "Only the two of us. Yet it might be, for we knew not even that you were to come also."

"That was an after-thought, and why I rode so hard and straight. I knew about you, didn't I?"

"Si, senor; no doubt."

Kelleen swung one leg carelessly over the pommel of his saddle, and deliberately rolled and lit a cigarette. His face expressed no emotion, no particular interest, yet Deborah was certain the keen, searching eyes had swept swiftly over her covert, and up the steep front of the overtopping cliff. He suspected where she was hidden, and was endeavoring to protect her from discovery; but who was he really playing fair with? was he trying to deceive both? or merely playing a desperate game in which a single slip would mean disaster? Was he outlaw or honest man? Nothing in the situation, or in the conversation thus far overheard, gave her certainty. She dare not move, scarcely venture to breathe, as she watched the three men below.

"When is this Casebeer gang expected?" Kelleen questioned. "Tonight, senor; it was to be earlier, but they not come. Now not until tonight; they never cross the desert by day."

"No, I reckon not; it would be too risky. Any trouble here lately?"

"Non, non, senor; not of late trouble. It was all fixed. The Senor Meager he know who best to see. They come—yes; last week a man come, an' question, but he ride away, an' know nothing. A troop come, soldiers from the fort, an' stay two, three day. I talk with officer; he drink with Bob; then they go back to Nogales. It be all right sure the—see? We know they not be back soon as this week. So we send word for Casebeer."

(Continued in next issue)

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