

The Place of Research in Building Oklahoma

By HOMER L. DODGE

Following is a radio talk delivered by Dr. Homer L. Dodge, dean of the Graduate School, over radio station WKY at the invitation of R. T. Stuart, president of the Mid-Continent Life Insurance Company, who conducts a weekly radio program devoted to business and industrial development of Oklahoma.

WE are told that the King of England once asked the great scientist, Michael Faraday, "What is the use of your experiments?" to which Faraday replied, "Your Majesty, of what use is a baby?" Again, when the Prime Minister visited his laboratory and asked the same question, Faraday replied, "My Lord, some day you can tax these things." How true this last remark has turned out to be can be amply testified to by any officer of a public utility company, for the principles of electromagnetism, discovered a little over a hundred years ago by Faraday, are the basis of the electrical power industry.

Why is it that the commercial applications of these experiments were delayed half a century so that many of us can remember the first electric lights, the first street railways and telephones? Most of us, in fact, can remember when there were no radios, no talking pictures and no television. How does it happen that the pace at which scientific experimentation finds expression in useful applications has been so greatly accelerated in the last quarter of a century? The answer was, I believe, first given by Dr. Frank P. Jewett, President of the Bell Telephone Research Laboratories, who explained that the most important invention of all time has been the invention of the *process of invention* through organized, planned, scientific research and the systematic application of the results of research to human needs. At any rate, the application of this principle has nowhere been more successfully carried out than in the Bell Laboratories where it has resulted in epoch making developments in radio, long distance telephone, television and sound pictures, and in valuable by-products such as the instrument for enabling persons to speak whose vocal cords have been destroyed by disease. Similar methods of organized research applied by such men as Charles F. Kettering, President of the General Motors Research Corporation, have been responsible for the perfection of the modern automobile and airplane.

Perhaps you are wondering what this has

to do with building Oklahoma and making it a better place for you and me to live in. It is this. The methods of organized research which have been so fruitful in these great industries can be applied to a state as an industrial, economic, and social unit. All that is needed is a systematic plan to bring the research talent in the state to bear upon its problems. Especially must research be made available to smaller industries and applied to the problem of creating new industries.

Research, which is just another name for organized inquiry into the unknown, has its place in all fields of endeavor. Out of research in physics came the methods for the detection of probable oil bearing structures which have revealed new Oklahoma oil fields and will reveal more. Biological Research at the University of Wisconsin revealed methods of irradiating foods by ultra-violet light which are of incalculable benefit to humanity and have brought to that University large sums for the support of its research program. At Ohio State University, extensive research in many fields is being carried on, including studies in ceramics, an important Ohio industry, ranging from fire tests of tile walls to the manufacture of artificial teeth. At Purdue University, engineering research is emphasized and has resulted in outstanding contributions in the fields of communication and television.

In Oklahoma, although much has already been accomplished by various organizations—notably the leading educational institutions and the Geological Survey—the possibilities in the situation have scarcely been touched.

At the institution with which I am connected, there has been a conscious attempt to direct the research program toward state needs, and valuable results have already been attained in the fields of business, biology, chemistry, engineering, geology, home economics, physics, and the social sciences. At the present time we are organizing a Research Institute for the purpose of making our research facilities immediately available to the citizens of the state. Through this and other means there must be further studies of the raw materials available in the state and especially of the ways by which Oklahoma raw materials may be fabricated by Oklahoma industry not only for home consumption but also for shipment elsewhere. At present Oklahoma's raw ma-

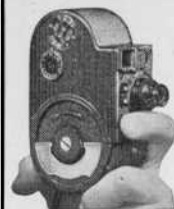


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terials are going out of the state for processing and fabrication and are then brought back for Oklahoma to use.

Oklahomans are beginning to be Oklahoma conscious. We are realizing that the time has come when we should not be content to remain a colony of the industrialized East but must develop our own economy. But we must compete with outsiders not by

any form of tariff but by the excellence of our products. In developing our products from our own raw materials we must use the most powerful device which modern industry has found—and this is *research*. Any investment of individuals, or of industries, or of the State itself in programs of research will be an investment in the future of Oklahoma and will bear a high return.

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In Public Service

In All Parts of Oklahoma, Sooner Graduates Are
Serving Their Communities as Elected Officials

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UNIVERSITY graduates and former students are playing a large part in administration of county governments over the state. A survey of the roster of county officials reveals that in more than one half of the State's seventy-seven counties one or two or more of the principal elective offices are held by University alumni.

County attorneys, county judges and county superintendents of education are found to be O. U. alumni in a great many cases.

Following are elective county officials and district judges who, according to responses to Alumni Office queries sent to each county, are University graduates or former students:

Adair—George M. Hagan, '30, county superintendent, Stilwell.

Alfalfa—Floyd L. Croxton, '35law, county judge, Cherokee; Finis O. Stewart, '35law, county attorney, Cherokee.

Beaver—Keith Drum, '38ba, '40law, county attorney, Beaver; Lee Hulse, '33ed, county superintendent, Beaver.

Blaine—B. D. Gambel, '38, county superintendent, Watonga.

Bryan—Bill Steger, '36ba, '36law, county attorney, Durant.

Caddo—Haskell B. Pugh, '31law, county attorney, Anadarko; P. M. Friesen, '32, county superintendent, Anadarko.

Canadian—E. F. Thompson, '26ba, '28law, county judge, El Reno; W. L. Funk, '35law, county attorney, El Reno; Lucius Babcock, '31law, El Reno; district judge, District No. 13.

Carter—John E. McCain, '25law, county judge, Ardmore.

Choctaw—Norman Horton, '34, county attorney, Hugo; Ray Blakely, '39, county clerk, Hugo.

Cimarron—J. A. McMahan, '37ba, '39law, county attorney, Boise City.

Cleveland—Aubrey C. Moses, '26ba, '28law, county judge, Norman; Otis Blankenship, '33ba, '39law, county attorney, Norman; Virgil Young, '22, county clerk, Norman; R. W. Hamilton, '32ba, county superintendent, Norman.

Coal—Dale Brown, '36bus, county attorney, Coalgate; Arthur Pope, '25, county treasurer, Coalgate.

Comanche—W. W. Godlove, '30ba, '32law, county attorney, Lawton; Clarence Scott, '37, county superintendent, Lawton.

Creek—Birney Herrin, '21ba, county superintendent, Sapulpa.

Custer—Donald B. Darrah, '22, county judge, Arapaho; G. C. Loving, '31law, county attorney, Arapaho.

Garfield—Paul Edwards, '31, county judge, Enid; Hugh Conway, '23, county attorney, Enid.

Garvin—R. B. Garvin, '29law, county judge, Pauls Valley; M. J. Ewert, '38law, county attorney, Pauls Valley; George Phelps, '39bus, county treasurer, Pauls Valley; Earnest Wall, '38, county superintendent, Pauls Valley; Ben T. Williams, '31ba, '33law, Pauls Valley, district judge, District No. 19.

Grady—L. A. Wood, '28law, county judge, Chickasha; T. H. Williams, '26law, county attorney, Chickasha; Sam P. White, '32, county surveyor, Chickasha; Robert W. Osborn, '39, county superintendent, Chickasha.

Grant—J. C. Stevenson, '24, county judge, Medford; R. L. Cooper, '33, county attorney, Medford.

Greer—Percy Powers, '05, county judge, Mangum; H. K. Ross, '25, court clerk, Mangum; Roy Briggs, '16, county clerk, Mangum.

Haskell—Graham Holmes, '35, county judge, Stigler; J. B. Pennington, '40law, county attorney, Stigler.

Hughes—Bob Howell, '26ba, '28law, Holdenville, district judge, District No. 14.

Jackson—Carroll Womack, '28law, county judge, Altus; Weldon Ferris, '29ba, '31law, county attorney, Altus; J. M. Maddox, '26, county superintendent, Altus.

Johnston—C. E. Draper, '35, county attorney, Tishomingo.

Kay—Roy R. Carver, '23law, county judge, Newkirk; Roy E. Grantham, '34ba, '34law, '40 ed. m., county attorney, Newkirk.

Kingfisher—Roy H. Mead, '34, county judge, Kingfisher.

Kiowa—Clifford E. Huff, '25ba, '27law, county judge, Hobart; Gerald Watts, '38law, county attorney, Hobart.

LeFlore—Foster Windham, '30law, county attorney, Poteau.

Lincoln—Frank McVey, '36ba, '36law, county attorney, Chandler.

Logan—H. J. Adams, '33law, county attorney, Guthrie; Blanche Farley, '40ed.m, county superintendent, Guthrie.

Love—John Tippit, '38ba, '40law, county attorney, Marietta; W. B. Looney, '29, county treasurer, Marietta; J. I. Goins, '28law, Marietta, district judge, district No. 19.

McClain—E. Smith Hester, '33law, county attorney, Purcell.

McCurtain—Walter Scott, '31law, county judge, Idabel (resigned to become secretary of State Bar); Ed Shipp, '38law, county attorney, Idabel.

Major—Harold Gasaway, '36law, county attorney, Fairview.