

THE INDEPENDENCE OF SOUTH DAKOTA

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(Abstr.)

Following the custom of the Academy of Science, the retiring President discussed a subject uppermost in his mind, in this case geology and the development of the State.

Attention was called to the general knowledge possessed by the average citizen concerning the distribution of natural resources. Few persons get beyond the ideas gained in the grammar school. The fundamental facts of distribution, which are the basis of world trade, are accepted unconsciously by a large proportion of our population whose point of view is purely academic. To those more intimately concerned in commerce and manufacture the matter has been an interesting economic problem demanding brains and money but carrying more delight than anxiety.

But the war has placed a different emphasis on our conception of natural resources. The tremendous dependence on raw material has been distressingly evident. The critical condition of Germany and the Allies in this respect was briefly reviewed. Even the United States with its boasted wealth was extremely short on a number of mineral materials absolutely needed to carry on the war program. The work of the federal and State geologists in speeding up production and finding new deposits of war minerals was outlined.

With the termination of the war the need for mineral materials has not passed. Commerce, trade, and manufacture, in fact the whole complex fabric of our civilization, are built on natural resources. The retailer may get his supply from the manufacturer, but the manufacturer must ultimately use the raw material that nature provides. This means in most cases turning to the geologist, for it is the business of the geologist to know about mineral and rock materials. The war has not only opened the eyes of the average citizen to the importance of accurate information concerning the useful minerals, but it has also shown in a practical way that the geologist, because of his special

training, is able to get this accurate information and save time and money in the getting.

Passing from generalizations to details and getting closer home, the case of South Dakota was presented. Since building, construction, and manufacture go forward in this State, it is pertinent to ask where the raw materials are coming from. Is South Dakota economically independent? It would be an ideal condition if South Dakota could produce everything she needs from her own materials, and still have enough for neighboring States besides. At present we are getting many things from outside the State. Is this necessary?

The State Geological and Natural History Survey, of which the writer is director, organized for the particular purpose of developing the natural resources of the State, is in a position to know how much development has been done and what many of the demands of trade are. Business men, commercial clubs, manufacturers, capitalists, scientists, prospective settlers, teachers, citizens and various men in and out of the State have turned to the Survey for data concerning a variety of things. There is a steady demand for accurate information. To make the case concrete the following is a partial list of items concerning which information has been sought:

Andalusite	Fossils
Asbestos	Fuller's earth
Bentonite	Gas
Beryl	Glass sand
Birds	Gold
Building stone	Gypsum
Cement	Lithium
Chalk	Manganese
Chromite	Maps
Clay	Mica
Coal	Molybdenum
Columbite	Monazite
Corundum	Mussels
Cyanite	Oil
Fluorite	Paint minerals

Potash	Tantalum
Pyrite	Tin
Road material	Tungsten
Rocks	Vanadium
Rutile	Water
Sand and gravel	Water power
Sillimanite	Water supply
Soils	

Reports covering particular localities in the State have been called for, and in addition, detailed information concerning the following counties has been wanted: Codington, Day, Fall River, Grant, Harding, Hughes, Lake, Lincoln, McCook, Minnehaha, Pennington, Perkins, Turner.

Some of these demands have been satisfied, but to many of the inquiries the Survey has had to reply with general rather than with specific statements because the information was not at hand, and the information has not been obtained because the Survey staff is too small to investigate thoroughly the whole State. One of the results has been that again and again capital has been turned away from South Dakota. Naturally a business organization will not start a new industry in the State if details concerning the raw material are not available.

The remedy is obvious. Since the information is wanted and needed it is up to the Survey to get it. This the Survey can do if it is given the proper equipment and is allowed to employ a sufficient number of trained experts. South Dakota will not reach the maximum of its usefulness until an accurate inventory is taken of its natural resources. The Survey has plans for the taking of this inventory and the investigation of all our raw material; but it is still waiting for the Legislature to appropriate funds adequate for the rapid carrying out of the plans. The State could well afford to spend \$50,000 a year for development work by the State Survey. It is a good business proposition. We know South Dakota has many resources, but the complete list will not be known until much detailed field work and laboratory testing are done. If South Dakota is not completely independent economi-

cally, the sooner we determine her limits the better.

State investigation is better for the State than private investigation, because all the work is more thoroughly coordinated, the aim is public good rather than private gain, the investigation is impartial, and the information is available to all the citizens alike.

Other States have thriving Surveys; why not South Dakota?
