

These benefits may come either through the discovery of new methods in connection with the researches of the Bureau itself or through its activity in stimulating researches by private parties.

"A brief statement of facts will indicate in a general way what the National Government is doing to aid the development of each of its two great basic industries and what in turn these two industries are contributing yearly to our national wealth and progress. Although the figures are not fully comparable in all respects, they will be found to be essentially correct.

"What these two basic industries do for the Nation:

Item.	Agriculture including forestry.	Mining and mineral industries.
Number of employees	13,000,000	2,300,000
Yearly value of products	\$10,500,000,000	\$4,600,000,000
What each worker in these industries contributes to the national wealth yearly	\$800	\$1,800
What each industry contributes to the freight tonnage of the country yearly, per cent.	22	60

"What the National Government is doing for each of these industries:

Yearly Appropriation.	Agriculture.	Mining.
For education—		
From direct appropriation	\$2,500,000	
From land grants	1,030,000	
From Smith-Lever Act for demonstration educational work	480,000	
For 52 experimental stations, one in each State and Territory	2,550,000	
For general researches and other work to aid agriculture and mining	22,410,000	\$1,967,000
Total	\$27,970,000	\$1,967,000
Per capita contribution from the people of the U. S. for advancement of these in- dustries	\$0.28	\$0.02
Of this contribution the per capita expendi- ture for safeguarding the lives of 2- 300,000 employees in the mining industry is about one-half of 1 per cent. per annum		.005

"Nothing can show the relative national neglect of the mining industry more clearly than does the above tabular statement; and this neglect is all the more difficult to understand in view of the hazards of that industry and the other conditions that should appeal to the humanitarian as well as to the commercial instincts of the American people. But another fact that tells the story with equal emphasis is that during the past 10 years, in addition to the large sums paid out of the National Treasury for the benefit of agriculture, as indicated above, and the payment towards the reclamation of agricultural lands in the Western States of all funds arising from the sale of public lands in those States, even the proceeds of the sale of the Nation's mineral resources in like manner have gone not to aid mining but to the reclamation of additional agricultural lands.

"Agriculture is much the larger of the two industries; it embraces a large number of persons, more widely distributed, and each acting as an independent agent. Its products, supplying the country with food, and clothing, bring this industry even closer to the lives of the people than does the mining industry, though the latter supplies them with the fuel that cooks their food, heats and lights their houses (which are built largely of mineral products), operates and supplies a large share of the materials and all the machinery of their factories, conducts and operates largely their facilities for transportation and communication, and supplies more than 60 per cent. of the total freight tonnage of the country. Indeed, the mining industry is in large measure the real basis of our modern civilization and national life.

"But, more than the above, there must be some special reasons why the mining industry has received relatively so little aid from the National Government, and these are to be found, no doubt, in certain misapprehensions concerning the industry. Mining is usually regarded as an industry

comprising the operation of a few large, highly profitable properties, such as the old Comstock mines in Nevada, the Treadwell mine in Alaska, or the Homestake mine in South Dakota. It is usually considered to be an industry controlled by a few parties, the owners of the large properties mentioned, who would gladly avail themselves of an opportunity to unload on the National Government the cost of conducting those researches in which they are particularly interested. Therefore, it is usually considered as an industry that should be allowed, and even required, to take care of itself. These assumptions are far from correct.

"The facts of the situation are:

"(1) These large, highly profitable properties are few in number, and, so far as known, their owners have never joined in a request for Government appropriation to aid in the mining industry, nor have they been given any special consideration either in the establishment or in the plans of the U. S. Bureau of Mines. These mine owners have neither asked for assistance nor have they endeavored to unload upon the Government any investigations of their own. On the contrary, at the request of the Bureau of Mines, a number of them have expended considerable sums from their own funds for investigations that promise to be useful not only to them, but to other less important mining developments in which they are, and were in no way interested.

"(2) Although the number of large mines is small, there is a large number of small mines. The records show that in the country as a whole there are about 40,000 coal mines, metal mines, and quarries and about 170,000 oil wells that are operating on a smaller or larger scale. In addition there are many plants for treating ore by mechanical concentration, smelting, or other processes and various mineral-industry plants in different parts of the country. Few seem to appreciate the importance of helping those who hold these small properties to find methods of operation by which the properties can be worked at a profit instead of being helplessly transferred to a few large corporations which alone may have the funds for developing the processes that will make profitable operation possible.

"(3) The most urgent appeal for larger national aid to the mining industry comes from and on behalf of the 2,300,000 employees of the different branches of the industry, who are asking the aid of the Government in the development of safer and more healthful working conditions. The humanitarian appeal should be given precedence over calls for appropriations to advance commercial gains. It comes from employees working under hazardous conditions, a majority of whom are unfamiliar with our language, our laws, or our institutions. These men have been led to believe that the Government of the United States is interested in their welfare and has been planning to aid in bringing about safer and healthier conditions for them; but owing to long delays and slow progress in the Government's work, they are now becoming discouraged in their belief that such plans would be realized.

"(4) Another important end to be sought through these larger contributions to the aid of the mining industry is helping the consumers or users of mineral products, who are distributed throughout every part of the country. Mineral products are becoming more and more indispensable to the domestic life of the people and to our manufacturers, as well as being the basis of transportation facilities and of the products to be transferred. Under normal conditions, as our mines become deeper and our mineral resources are depleted, not only the hazards of production but also the per capita cost of mineral products is increasing and one important purpose of the larger investigations proposed in behalf of the mining industry is to find how the cost to each consumer may be kept down to a minimum.

"Some special reasons why mining should receive larger national aid are enumerated below: