

gers from this cause will eventually disappear, and in the attainment of this end the chemist will figure largely. I again venture to hope that our Government will recognize the great work which has already been done, and which still has to be done, and will give every encouragement to foster scientific investigations, and the work of the chemist in its application to the benefit of what must become one of the great industries of this vast country with its many and varied conditions of climate and soils.

South Africa should, undoubtedly, be in a position to become a country absolutely self-supporting in every respect. The question of irrigation and the proper conservation of water is one which may rightly and safely be left in the hands of our brother scientists, the engineers.

We have as a lesson in possibilities our marvellous gold industry, and in this respect I cannot do better than refer to the words of that eminent financier, Herr Dernburg, who recently visited us. In the course of a most instructive and eloquent speech he stated that there was a time when the standard of currency was greatly exercising the minds of financial men in the great centres of the world, the question being whether the standard should be gold or silver. At that time arose the Goldsmiths of the Transvaal, the output from which settled the question once and for all; it was to be gold. I doubt if this important fact had ever before been made patent to the world (outside the world of financial men), and I take it to be a happy augury that if South Africa has been able to settle this important question she will be able to settle many others of as great importance to the welfare of human-kind.

Our Society continues to be on terms of the greatest amity with the kindred societies; this is much evidenced by the fact that some of our members have been invited by the Transvaal Institute of Mechanical Engineers to assist upon a committee, which that institution has formed for the purpose of establishing South African standards for strengths of materials, etc.

Our Society is now widely represented by members in all parts of the world, but there is still much further scope for its usefulness, and I trust that those who have been and will be appointed (under the new scheme, which you have approved of and which strikes me as

such an excellent one) "as Corresponding Members of Council" will do their utmost to further our interests by bringing in new members, and by obtaining for our information and instruction, papers upon the many and varied subjects which come under the scope of our work, and also help us by contributing to our discussions. While on the matter of discussions, I cannot too strongly urge upon members the value of the fullest possible discussion upon a paper, as by this means we learn the views of individuals, and obtain the results of the experience of many hard and practical workers who may not feel able to write original papers, but whose attention and interest is awakened by statements made in papers written by others, which statements they may be able to confirm or otherwise from their own experiences, and thus the discussion becomes as valuable as the original paper. I would also urge our members to come forward with descriptions and records of processes and methods which they may have tried and not found to be successes. The information contained in a record of trials which have proved failures is of the greatest value to the metallurgical world.

The reduction in working costs, improvements in plants, and higher efficiency in the mining and metallurgical departments, as well as better extraction, have brought large bodies of ore, which were in former times classed as "unpayable," either within, or very nearly within the "payable" class, and it must be the aim of all the members of our Society, both the mining and the metallurgical members, to take advantage of all existing improvements and to endeavor to devise new ones in order to assist in bringing down the general costs of production to such a point that aided, we may hope, by still better extraction of the gold, it shall be possible to see a profit where but loss existed before. In this endeavor we must work hand in hand with our good friends the kindred societies of engineers, whose aims run on lines parallel to our own. Thus can we do our portion towards making it commercially possible to open up new lines and to reopen many old ones, to the end that the industry may be able to sustain a larger white population, and that by such means the burden of those who are now suffering so severely from want of employment may be lightened, and prosperity may again reign in this country.

## COAL BRIQUETTING IN 1907.

BY EDWARD W. PARKER.

From Advance Chapter Mineral Resources of the United States.

That considerable progress was made in the development of a briquetting industry in the United States in 1907 is shown by the reports of operations made to the Geological Survey for that year. There were eleven plants in actual operation during 1907, although one of these, that of the Pittsburg Coal Mining Company, at Pittsburg Landing, Cal., was burned in July and had not been rebuilt up to the close of the year. The total production of briquets, as reported to the Survey, amounted to 66,524 short tons, having a value at the plants of \$258,426. When compared with the development of this industry in Germany (in which country the production of briquets in 1906 amounted to about 16,000,000 short tons), the production in the United States appears in-

significant, but it is of importance as indicating that a beginning has been made, and with the success of the established plants demonstrated and the gradual education of consumers in the advantages of briquets for efficiency, ease of handling, and cleanness, rapid progress should be made in this industry during the next few years.

As constant dropping of water wears away the stone, so the constant agitation of this subject has begun to show its effect, and the rock of opposition, or at least of inaction, is being worn away. There can be little doubt that the interest aroused through calling attention to the waste of that part of the country's natural resources, represented by the nonuse of the slack and culm pro-