industries (H. L. Hind and F. E. Day); foods (L. H. Lampitt); fine chemicals and medicinal substances (E. Stedman). Other sections are: fuel (H. J. Hodsman and A. Kay); gas, carbonisation, tar, and tar products (J. Macleod and T. A. Wilson); colouring matters and dyes (L. J. Hooley); bleaching, dyeing, printing, and finishing (A. J. Hall); acids, alkalis, and salts (P. Parrish and F. C. Snelling); glass (M. Parkin); refractories, ceramics, and cements (J. H. Chesters and W. J. Rees); oils, fats, and waxes (H. M. Langton); paints, pigments, varnishes, and resins (G. C. Attfield, J. O. Cutter, L. R. Hickson, and H. Causer); rubber (T. L. Garner); leather and glue (R. H. Marriott and H. Phillips); sanitation and water purification (A. Parker); photographic materials and processes (A. Batley and E. E. Jelley); explosives (J. Weir). Consideration of essential oils is deferred until next year.

There is much information of interest to the general scientific reader; for example, it is recorded that the price of platinum is now below that ruling in 1914, that the extraction of rhenium, rarest of metals, is being operated commercially in Germany, and that the 'talkies' have stimulated research on photographic emulsions. The chapter on sanitation and water purification deserves special commendation, for although the general standard of the reports is high, some tend more than others to become an expanded list of references. It could be wished, too, that every reporter would survey work which, although of obvious industrial importance, has been classified for purposes of abstract publication as 'pure' chemistry. A. A. E.

Von Zahlen und Figuren: Proben mathematischen Denkens für Liebhaber der Mathematik. Von Prof. Hans Rademacher und Prof. Otto Toeplitz. Pp. vi+164. (Berlin: Julius Springer, 1930.) 9·60 gold marks.

IT has been rightly said that the high walls built up round mathematics by the signs of integration and summation, cause mathematics to be a permanent mystery for the average thinking person. It is true that a thorough insight into higher mathematics requires special training; yet within these abstruse theories, there must be some parts and some examples, at least, which, properly explained, could enable non-experts to peep through the complex texture of mathematics, and derive thereby some measure of enjoyment. This is the spirit which underlies the little work under notice. Although this book will teach nothing new to mathematicians, it will be found most interesting and helpful by those who are interested in mathematics. Without using anything but logic and the most elementary notations, the authors are able to guide one through the mysteries of the prime numbers, of incommensurable lines and irrational numbers, the theory of aggregates and the paradoxes of transfinite numbers, the doctrines of the polyhedra and the measurement of the circle. Although their exposition is based on mathematical facts, the authors lay more stress on the general form and method of the questions treated; while occasional historical remarks add to their interest. Thus, instead of showing the pragmatical aspects of mathematics, or their philosophical importance, the book emphasises the internal and structural characteristics of pure mathematics. The student of logic, in particular, will find in this very able book an ample field for his speculations. T. G.

Synthèses et catalyses industrielles: fabrications minérales. Par Prof. Paul Pascal. Deuxième édition. Pp. vi+456. (Paris: Hermann et Cie, 1930.) 70 francs.

PROF. PASCAL'S book is divided approximately into two parts, the first dealing with nitrogen compounds and the utilisation of atmospheric nitrogen and the second with sulphuric acid. The treatment is detailed and the theory of the processes receives special attention, so that the book is particularly useful in supplementing the more technical treatises. A very brief treatment of hydrochloric acid is given, in which the modern synthetic process receives most attention. The references to the literature are very incomplete, and many important special treatises which could be consulted, in amplification of the various sections, are not mentioned.

Although the author begins with an account of the "Nitrogen Problem", this is somewhat out-of-date, since it does not make clear that the real nitrogen problem at the present day is an economic one. There is now no possibility of a shortage of fixed nitrogen; the problem is how to sell it. Every country is, or shortly will be, self-supporting, and, as the newer processes are installed, the competition with the older will become more and more acute. The trouble will increase as time goes on and the economic difficulties of over-production, which were considered visionary during the War, will become more and more menacing.

Some Dogmas of Religion. By Dr. John McTaggart Ellis McTaggart. Pp. lii+299. (London: Edward Arnold and Co., 1930.) 6*s*. net.

MESSRS. Edward Arnold and Co. have done a valuable service in issuing a new and cheaper edition of the late Dr. Ellis McTaggart's famous book, with a delightful introduction by Dr. C. D. Broad. "Some Dogmas of Religion" has been long out of print (it was first published in 1906) and second-hand copies have been difficult to find and expensive to buy. Of this work Dr. Broad says: "In many respects it is a model of popular philosophical writing. It presupposes no knowledge of philosophy; it is written with admirable clarity, and abounds with apt and amusing illustrations; and it deals with problems which have interested almost all intelligent men in all ages." It was McTaggart who said that the man who has no religion cannot have a bad one; and it was he who expressed the hope that "a time may come when metaphysics may attain the same certainty in a higher sphere which is now often reached by science in a lower sphere". It is well known that McTaggart managed to combine atheism with a belief in immortality and the Church of England. But he was what has become more rare nowadays: he was a serious thinker.