synchronously, and the loss of water bottles and thermometers was so considerable that the captain must have heaved a sigh of relief when he again got his ship on her course.

From Samoa to Guam, a prosperous United States colony, was clear sailing, and *en route* to Japan was obtained the deepest sounding of the cruise, 8,350 metres. Tokyo was reached after typhoon experiences which must have tried the *Carnegie*. The voyage thence to San Francisco, 36 days, on a very northerly course, heavy seas, overcast skies and perpetual foghorn cannot have been a happy experience, but there were doubtless consolations in a well-earned rest in the home port.

The further plan of the cruise included a visit to Australia and a complete circumnavigation of the world before the 'westerlies' of the Southern Ocean. Hawaii came first and then the tragic end in Apia Harbour, famous in our naval annals for the feat of the *Calliope* in putting to sea in a hurricane, when six war vessels piled up on that harbour's shores.

The scientific results of the *Carnegie* had all been dispatched home before her end, and Dr. Paul's narrative is a desirable supplement telling us how they were obtained. It is a pleasing and instructive story for all who "go down to the sea in ships"—but why is the vessel pictured on the binding as an idealised three-master that never could have sailed on any sea? J. S. G.

Short Reviews

The Law of Patents for Chemists. By Dr. J. Rossman. Pp. ix+304. (Washington, D.C.: The Inventors Publishing Co., 1932.) 3.50 dollars.

DR. ROSSMAN has packed into this volume much information that is of interest to chemists in Great Britain as well as in the United States, and the sections on essential patent law principles and on the procedure for obtaining the patent are of general interest although primarily relating to American patent law. From this point of view the book should be of real value to chemists in providing a comprehensive survey of the technicalities of patent law in a manner which is intelligible to chemists without legal training. A glossary and a bibliography of books and periodicals add to its general utility.

From a broader point of view the book is disappointing. At a time when the evil of paper patents is generally acknowledged and is so serious and widespread that the suitability of the patent system to modern industry, and especially chemical industry, has been openly questioned, it is surprising to find that the chapter on "What is Invention?" indicates little appreciation of the fundamental problems which now arise in the relations between scientific and industrial research and invention. These difficulties have been ably delineated by Mr. C. C. Paterson in an appendix to the Report of the British Science Guild on the "Reform of the British Patent System". Similar difficulties exist in the United States and some indication of the attitude of patent law opinion in that country, particularly on the suitability under modern conditions of 'inventive ingenuity' as subject matter for a chemical patent would have been welcome, as well as reference to the related question of protecting scientific discoveries or scientific property. These should not have been omitted in a book addressed to scientific workers, and the brief discussion on patent rights, particularly those of employer and employee, would have gained value from a broader vision and from reference to the studies on the position of the salaried inventor carried out for the International Labour Office and the League of Nations in recent years.

Forensic Chemistry and Scientific Criminal Investigation. By A. Lucas. Second edition. Pp. 324. (London: Edward Arnold and Co., 1931.) 18*s.* net.

THE second edition of this excellent textbook appears at a time when a reminder of the immense services which the man of science can render in the prevention and detection of crime is more than opportune. Recent discussions on the increase of crime in Great Britain during the last two or three decades have suggested doubts as to whether the authorities are making sufficiently full use of the resources of science in protecting society against those who are prepared to prostitute the discoveries of science for criminal purposes. The new and enlarged edition of this book includes references to many of the important advances which have been made during the ten years since the first edition was published, in the use of scientific methods for the detection of the criminal, notably the use of ultra-violet light.

Much of the book has been rewritten, related chapters having been combined and a considerable amount of new matter has been incorporated, particularly in the chapters on bloodstains, clothing, documents, explosives and explosions. The expansion of the chapter on firearms, cartridges and projectiles well illustrates the growing importance of this subject due to the greatly increased use of firearms for criminal purposes since the War. Excellent bibliographies accompanying each chapter and numerous references in the text enhance the value of a well-written and up-to-date book, which may be read with interest even by those who are not experts in forensic chemistry.

To the general reader it will enforce the