the trap or in the shark pool. Mr. Vinal Edwards tried to catch the ramora with a dip net whereupon, to our surprise, it swam quickly towards the shark's head and, with a peculiar twist of the tail, entered the posterior gill slit on the right side of the head and disappeared, presumably into the shark's mouth. It seems possible that the ramora made the trip from the trap in the same way. In this case therefore the shark offered free transportation, food and shelter, making him practically an ideal host.

REYNOLD A. SPAETH

WOODS HOLE, MASS.

## A REMEDY FOR MANGE IN WHITE RATS

EVERYONE who has kept a colony of white rats under laboratory conditions has doubtless been confronted with the necessity of dealing with the mange-like skin disease which affects the edges of the ears, the nose, tail and the skin of the body. The organism is one of the species of Notoedres, the itch and scab mite.

The conventional remedy in this laboratory has been a mixture of sulfur and vaseline but I have had no success with it. Recently, Kennedy¹ reported the use of cedar oil for this disease but cautioned care because of its anesthetic properties.

I have had satisfactory results with a 2 per cent. solution of chloramine-T. The crusty scabs on the ears, tail and among the hair on the shoulders are rubbed vigorously with cotton soaked in the solution and usually yield to such daily treatment in less than a week. The peculiar long horny growths on the nose are best treated by cutting close with a sharp scissors and treating the resulting lesion daily with the antiseptic. Routine sterilization of cages is desirable in any case.

After surgical operations the rats often insist on removing the sutures with their teeth. Treatment of the wound twice daily with chloramine-T solution will give satisfactory closure in a very short time.

ARTHUR H. SMITH

SHEFFIELD LABORATORY OF PHYSIOLOGICAL

CHEMISTRY, YALE UNIVERSITY

<sup>1</sup> Kennedy, SCIENCE, N. S., 53,364, 1921.

## **OUOTATIONS**

## THE TECHNICIANS IN INDUSTRY

THE Society of Technical Engineers has just published a journal in which its position and policy are for the first time clearly de-This society represents a movement of great interest, which has for some time been quietly advancing, but has attracted very little attention, either general or official. It has not escaped the notice of employers or of trade unions, who regard it with mingled feelings, and intelligent students of industrial affairs have carefully noted its rise; but since it has made no stir the public have heard nothing of it and official circles have turned a blind eye on it. Yet it marks a large change in the evolution of industry. The technicians, as represented by the Society of Technical Engineers, are not only engaged in industry, but are an essential factor in its largest branches, and one continually and rapidly advancing in importance with the development of applied science. More than any other element, they hold the key to the economic future in the field of practical operations. In a sense, this has been recognized by the immense amount of attention devoted to technical education in recent years. The backward state of technology in this country and the wonderful superiority of our industrial rivals were incessantly pressed upon British manufacturers before the war, but the importance attached to technical training was not extended to those who receive and apply it in practice. They have been taken for granted as part of the industrial apparatus. This was conspicuously shown during the war. Employers and labor leaders were constantly taken into council, and distinctions have been lavished on both, but the technicians, who had far more to do with the actual business of producing munitions than either, were wholly ignored. So, too, they are habitually overlooked in industrial inquiries, conferences, disputes and conciliation machinery. In the discussion of industrial relations and economic problems the old categories of Capital and Labour, never adequate and now quite out of date, are still

used. It is not perceived that a class has arisen which fits into neither, but is equally important, and, indeed, less easily replaced than either.

It is overlooked because it has not asserted itself. Now that this society has given a lead by settling its policy and position, the movement may be accelerated. It has decided not to join either employers or trade unions, but to occupy an independent and intermediate position, and, while protecting its own interests, to cooperate with both in promoting the advancement of British engineering industries. This decision is of great interest from several points of view. It will not please employers or trade unions, but we believe that it is sound and to the public advantage. An independent organization, powerful from the indispensable part in industry played by its members, and standing between employers and workmen, in intimate touch with both, may come to possess a decisive influence in holding the balance between them. The engineers, in particular, have a unique position which differentiates them from the clerical blackcoats, who do not come in contact with the manual workers. At the Engineering Conference held last July Mr. John Brodie, President of the Institution of Civil Engineers, referred to this in connection with industrial disputes, and suggested that the engineers, as a technical body, were peculiarly fitted by their knowledge of workmen and impartial standpoint for the investigation and judicial treatment of differences. This is a promising line of development.— The London Times.

## SCIENTIFIC BOOKS

History and Bibliography of Anatomic Illustration in its Relation to Anatomic Science and the Graphic Arts. By Ludwig Choulant. Translated and edited, with notes and a biography, by Mortimer Frank, B.S., M.D. With a biographical sketch of the translator and two additional sections by Fielding H. Garrison, M.D., and Edward C. Streeter, M.D. The University of Chicago Press, Chicago, Illinois. xxvii, 435 pages.

In 1852 Dr. Ludwig Choulant published his indispensable history of anatomical illustration. Although neither an anatomist nor artist, being a professor of medicine addicted to bibliography, he made both anatomy and art his debtor, even at the cost of some impairment of character. For, adoring the antique, he became the outspoken opponent of new doctrines in medicine, ridiculing the sound methods of physical examination, and was, in the words of his biographer, "the foe of progress." Although like all before him he deprecated book-wisdom and authority-worship in others, yet his own career shows the danger of these siren studies -of regarding, for example, the thirteenth the greatest of centuries, or of unwisely inquiring, "What is the cause that the former days were better than these?" However, Dr. Choulant does not extol the past in his impassionate historical record, and it is quite possible that his biographers, from whom we have quoted, have dealt with him unkindly.

In the preface he sets the limits of his work. It is not intended to be a history of anatomy, or of anatomists, or even of anatomical discovery, but merely of anatomical illustration, following two lines—that of scientific anatomy and that of artistic anatomy. The study is further restricted to the anatomy of man in its most obvious features. Many of the illustrations are of the human skeleton, and most of the others show the superficial muscles or general disposition of the viscera, so that the frontier of anatomy alone is entered. From Choulant's viewpoint, perhaps, Dr. Garrison writes that "anatomical illustration was neglected through the growth of histology, morphology, and embryology."

The author proceeds, in a historical introduction, to define three stages and seven periods of anatomical drawing. Although this chapter contains much interesting exposition, the proposed stages and periods are chiefly of academic interest. It is followed by a very brief account of ancient and mediæval illustrations, with a superb chromo-lithographic reproduction of miniatures from a manuscript of Galen's Opera varia. After this the anatomist-artists and artist-anatomists together are presented chrono-