inlaid with asphalt, is a row of *Olivella* shell disks of the type commonly worn as beads. These shells are placed about five to the inch, with a total of 305 shells, part of which were covered with the skeleton, there being 170 beads visible.

Two abalone shell disks about three inches in diameter were on each side of the skeleton, countersunk and secured with asphalt, together with calluses of the limpet *Megathura*. The abalone disks are surrounded by a row of *Olivella* disks, as are some of the limpets. The design is not symmetrical, although at casual glance it appears so.

The skull lay face down, hands folded under the skeleton. Across the neck was a string of large steatite tubular beads, each bead carved or inlaid and about three inches long, mixed with strings of *Olivella* shell disk beads. A short strand was upon each knee and another long strand lay along the spine.

Beside the skull, on the left, was a small stone bowl lying on its side—the mouth of the bowl pressed against the side of the skull. This bowl is about four inches across by two and three-quarters deep.

Beyond the skull, many of the *Olivella* shell disk beads were found, apparently having been thrown into the grave by the handful. Fragments of a turtle shell rattle were also recovered.

This burial, which was taken out intact, is being displayed in the Santa Barbara Museum of Natural History as an exhibition just as it was uncovered, complete with a reproduction of the grave from which it came, and with painted background of the location.

The cemetery from which this specimen was secured represents the latter part of the earliest phase of the Canaliño culture of this area. A complete report of the excavation on Mescalitan Island is in preparation.

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HIGGINS VERSUS HIGBEE

IN SCIENCE of July 26, 1940, p. 80, a short notice was published by Dr. Edna Higbee, of the University of Pittsburgh, on the results of injection of colchicine into hen's eggs. At the Philadelphia meeting of the American Society of Zoologists, Section of Endocrinology, December 30, 1940, Dr. Higbee (introduced by R. T. Hance) reported on her work with colchicine. Philadelphia newspapers and *The New York Times* of the following day selected her paper for their report on the meetings. Science News Service also included her paper in its report to the newspapers of the country. Unfortunately, an error slipped in, that changed Dr. Higbee's name to Higgins. And this error was perpetuated: in *Science News Letter* of January 25, it is Higgins, and so it is in the *Science News Supplement* to SCIENCE of February 14.

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QUOTATIONS

GERMAN PERSECUTIONS IN POLAND

WE have received from the Association of Polish Professors and Lecturers in Great Britain (Polish Research Centre, 32 Chesham Place, London, S.W.1) a letter protesting against the second series of persecutions by the Germans of Polish men of science and others since the war began. The fury of the first German attack on Polish science and culture was raging in November, 1939, when 180 professors and assistants of the oldest Polish university, that of Cracow, were deported "as criminals" to the concentration camp at Oranienburg. Now we are witnessing the second German attack on Polish science, carried out in the newly occupied territories and aiming at completing the destruction. On occupying Lwow the Germans executed Professor C. Bartel, professor of mathematics in the Lwow Technical College (see *Nature* of October 4, p. 402); they also arrested sixty other professors, among them a number of elderly men. The German persecutions are an integral part of the methodical campaign aiming at the total destruction of Polish culture. All the Polish universities, technical and agricultural colleges, commercial academies, all research institutes, all scientific societies, including the Polish Academy of Sciences, have been closed by the Germans. The same fate has befallen all secondary schools. The scientific apparatus and the equipment of laboratories have been transported to the Reich. The Polish museums were and still are being looted. Publication of books and periodicals as well as of independent newspapers has been suspended. Monuments which showed the artistic culture of the nation have been pulled down and destroyed.

All the professors of the University of Poznan have been expelled, deprived of all their personal possessions and left starving. Some of them, headed by Professor Bronislaw Dembinski, honorary professor of history, have died as a result of the dreadful conditions of life to which they were exposed. Eighteen professors of the University of Cracow, among them the most prominent representatives of Polish science, have died as a result of tortures suffered in the concentration camp of Oranienburg. The professors of the Catholic University of Lublin were kept in prison for some months and some of them are still in con-

centration camps. Recently a number of Warsaw professors perished as victims of undeserved persecution. "To this black record of German persecutions a new page has been added—the persecutions of Lwow. Executions and concentration camps for Polish men of science—that is what the German 'crusade in the defence of civilization' has brought with it." In view of these new German crimes which bear full witness to a total degeneration of Hitlerite Germany, we feel sure that men of science in all free countries will wish to join in this solemn protest by Polish savants in Great Britain.—*Nature.*

SCIENTIFIC BOOKS

THE ELECTRIC SPARK

The Mechanism of the Electric Spark. By LEONARD B. LOEB and JOHN M. MEEK. xiii + 188 pp. 43 figures. Stanford University Press. $3.50.

THE book is divided into three chapters, dealing respectively with the Townsend theory of the spark discharge, the streamer theory and the calculation of breakdowns in air. The first chapter develops the background necessary to a complete understanding of the problem, the second describes the point of view which the authors have been especially instrumental in developing, and the final section may be regarded as a discussion of certain practical applications.

The authors begin with a critique of the Townsend theory of the progress of an electrical discharge between two surfaces, and examine the regions of validity of this theory. They review the pertinent considerations and show at what points the observed facts depart from simple theory. They conclude that the mechanism envisioned by Townsend, which is known to be quite successful in explaining phenomena at low pressures and small distances, as for example in certain particular cases in Geiger counter action, do not apply in air at high pressures and big gap-lengths. Time-lags are discussed. The amount and nature of the departures of observation from theory suggests criteria to which a more comprehensive picture of the mechanism must conform.

In the next section, the authors develop the picture of the formation of streamers in a discharge. They point out the sources of error in past experiments, such as lack of stability control of potential sources, inaccuracies in voltage-measurement and of gas-purities. The properties of streamers are explored, as are the corollary effects due to overvoltage, branching and time-lags. The ion densities necessary for streamer propagation are computed and photo-effects are discussed. Finally the full development of a lightning stroke is described, and it is shown how the various considerations developed will explain the observed phenomena.

The final chapter deals with the applications of the theory to the actual calculation of breakdowns in gaps. Many examples are given, and the comparison of theory and observation is presented. The effect of pertinent factors such as air-density is discussed. The case of the breakdown in coaxial cylinders is considered at some length, this case being of practical importance in electrical power transmission problems; and finally, corona discharge is briefly considered.

On the whole the book contains a useful summary and digest of discharge theory, and should be of especial value to those working with the various aspects of spark discharges. Possibly owing to the incidence of the present emergency on all scientific work, the book shows some signs of haste in preparation, as a number of amusing statements have appeared which the authors would undoubtedly have altered had time been available. For example, the high speed ions are cited on page 39 as traveling at the incredible speed of 1.3×10^{-8} cms/sec; a sentence on page 56 ends with a reference to ". . . positive ions of a questionable sort," and the name of the firm by which the junior author was employed was spelled in the title page as the "Metropolitan Vicars Company." On the other hand, there is no doubt that the authors have done a good piece of work, and give a useful presentation of a subject on which they may be considered authorities.

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METEOROLOGY

Dynamic Meteorology. By BERNHARD HAURWITZ. 365 pp. New York: McGraw-Hill. 1941. $4.00.

THIS book appears at an opportune moment. In recent years the science of meteorology has suddenly moved into the limelight from a state of comparative obscurity. The demands of civilian and military aviation and of a vastly expanded maritime activity have led ever increasing public circles to a realization of the significance of accurate weather forecasts and of the influence of the atmosphere upon innumerable activities of man.

The book gives an account of the analytical tools used by the meteorologist. Apart from offering to the professional a number of methods and formulae presented for the first time in a text-book, it should be of value to anybody who in the course of his work comes in contact with phenomena in the atmosphere. Although the presentation is essentially mathematical,