The suggestion is offered that the presence of *Nicotiana rustica* in the vicinity of Bernalillo in 1934 and 1936 as reported by Professor White may have been due to its rather recent introduction by the white man. In 1925 a commercial development was undertaken for the production of *Nicotiana rustica* for nicotine in the upper Rio Grande Valley. In 1927 several hundred growers were reported engaged in the production of the species on plots ranging from fractions of an acre to 8 or 10 acres. Most of the growers were located north of Albuquerque, and more than 200 acres were reported grown in 1927. This project was developed and managed by Mr. R. G. Mewborne, of the Consumers Tobacco Company of Albuquerque, New Mexico, and continued through 1929.[2]

Between 1926 and 1929 the writer was also interested in the experimental production of nicotine in the Rio Grande Valley and had plots grown near Albuquerque, Las Lunas and Las Cruces, New Mexico. Several varieties of *Nicotiana rustica* were grown, although brazilia was the one used in the general commercial production.

During the period of 1925 to 1929 rustica plants and, no doubt, seeds as well, were easily available in the upper Rio Grande Valley, and it is suggested that the presence of the rustica plants near Bernalillo might well be traced to the wide-spread development which was attempted in that area between 1925 and 1929.

E. G. BEINHART
U. S. DEPARTMENT OF AGRICULTURE

A NOTE ON THE DETERMINATION OF THIAMINE BY THE YEAST FERMENTATION METHOD

IN a recent issue of SCIENCE[1] a paper on thiamine determination contained the following paragraph:

> Bunzell's difficulties recall the experience of Smythe, who, observing a remarkable stimulation of fermentation due to an extract of bull testicle, finally isolated ammonium chloride as the active factor. Smythe made the additional mistake of obtaining his yeast from the small cakes sold in grocery stores. Such yeast is too rich in thiamin to show any stimulation of fermentation when thiamin is added to the medium.

This curious paragraph contains both misstatements of fact and false implications so a correction is considered necessary. My paper[2] was not concerned with the determination of thiamin. It was concerned with finding out why the extracts in question stimulated fermentation when thiamin did not stimulate. Consequently, it was neither a mistake nor an additional mistake to use a yeast rich in thiamin. It clearly would have been a mistake to use a yeast in which thiamin was not present in excess.

Although ammonium chloride was isolated and shown to stimulate fermentation under certain conditions by as much as 100 per cent., the activity of the extracts was not found to be due solely or even chiefly to the ammonium chloride contained in them. From the chemical behavior of the extracts it was suggested that the activity was due to amino acid amides—free and combined. In accord with this suggestion glutamine and asparagine were shown actively to stimulate fermentation. d-Arginine also was found to be an active stimulator. As stated in the paper[2] an accelerating effect of ammonium salts on fermentation had been established as long ago as 1926,[3] but an accelerating effect (as distinct from a growth effect) for the other compounds mentioned had not been established as far as I am aware.

The above results were presented at a symposium held at Gibson Island in August, 1938,[4] and appeared in the February, 1939, issue of *Enzymologia*.[2] It is interesting to note that the first published account of the thiamin fermentation method to properly define the principle and limitations of the analysis was sent to press in May, 1939.[5] The fact that asparagine and arginine (along with some other less active amino acid compounds) stimulate fermentation was published by the same authors as new information in September, 1939,[6] and is cited by them in their recent paper as showing that various amino acids, etc., have an effect equivalent to ammonium ions.

C. V. SMYTHE
UNIVERSITY OF PITTSBURGH

EXCEPTIONAL BURIAL IN CALIFORNIA

DURING excavations carried on by the Santa Barbara Museum of Natural History, a unique burial was uncovered on Mescalitan Island, an old Indian site, near Santa Barbara, California. This find is outstanding among burials of the west coast.

The skeleton of a small adult, age 30–35, lay in the conventional face-down flexed position of the Canaliño (Chumash), but upon the highly inlaid scapula of a whale. The scapula had served as a slab, or a coffin without top or sides, and measured 46½ inches transversely and 30 inches proximo-distally. The spine had been planed off with stone tools, forming a perfectly flat surface upon which the skeleton lay. Around the superior border a narrow groove was cut and in this,

[2] R. G. Mewborne, "Tobacco as a New Industry for New Mexico," New Mexico State Planning Board, Santa Fe, 1936.
[1] A. S. Schultz, L. Atkin and C. N. Frey, SCIENCE, 94: 212, 1941.
[2] C. V. Smythe, *Enzymologia*, 6: 9, 1939.
[3] H. Zeller, *Biochem. Zeits.*, 175: 135, 1926.
[4] SCIENCE, 88: 9, 1938.
[5] L. Atkin, A. S. Schultz and C. N. Frey, *Jour. Biol. Chem.*, 129: 471, 1939.
[6] A. S. Schultz, L. Atkin and C. N. Frey, *Cereal Chem.*, 16: 648, 1939.

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.

PHIL C. ORR

SANTA BARBARA MUSEUM OF NATURAL HISTORY

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.

E. ALFRED WOLF

UNIVERSITY OF PITTSBURGH

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-