has been opened, he found. As a result many rinse solutions are not up to standard even when prepared according to directions on the package. He also found that restaurant and tavern operators need to be educated as to the necessity of changing chlorine rinse solutions frequently.

Hypochlorites of low alkalinity are more effective germicides than those of high alkalinity, it appears from the report of Dr. S. M. Costigan of the Research Department of the Pennsylvania Salt Manufacturing Co., Philadelphia. The strongly alkaline hypochlorite is more effective against the type of organisms known to bacteriologists as Gramnegative than against Gram-positive organisms. The hypochlorite of low alka-

linity, however, is more effective against both types of organisms, Dr. Costigan found, than the strongly alkaline hypochlorite.

The Idaho potato rates high from a culinary standpoint, but the Wisconsin potato, and especially the kind that is apt to turn black on boiling, is better food material for the human tuberculosis germ, it appears from studies by Drs. Janet McCarter and E. L. Tatum of the University of Wisconsin. The substance in the potatoes that makes them blacken when boiled is probably the factor that stimulates greater growth of the human tuberculosis germ when it is cultivated on a medium made from Wisconsin potatoes.

Science News Letter, January 2, 1937

ANTHROPOLOGY

## African King Criticized for His Having Only 75 Wives

## King of Babudja Must Follow Advice of Priestess; Anthropologists Urged to Give Up Very Old American

TROUBLES of kings in Africa held attention of the American Anthropological Association at their meeting in Washington, D. C.

One king of the Yoruba tribe, West Africa Slave Coast, has 75 wives and has lost prestige among his 60,000 people, the anthropologists were told by Rev. Edward Ward of the Catholic University of America. Criticism leveled against this ruler is that he should have more wives for sake of appearances. One of his chiefs, with 205 wives, far outshines the king in that region where wives are a badge of wealth and general importance.

Eight reasons for the custom of marrying many wives in Yoruba land have been found by Father Ward, but wealth is the main factor that determines how much of a harem a man can undertake.

A king of the Babudja tribe, in Southern Rhodesia, has to take advice from a council of elders, and in addition to that, he must get approval of a mysterious and powerful priestess on every important decision that is made, Heinz Wieschhoff of the University of Pennsylvania reported.

Mr. Wieschhoff himself made every effort to see this powerful political figure, the priestess. But although he passed the mountain on which he was

told she lived, nobody dared lead him near her. The Charewa, as this priestess is called, approves the king's choice of a wife, and even chooses the names of the king's children.

## No Old Stone Age Americans

Anthropologists were asked by the president of their association to give up their 50-year hunt for Old Stone Age inhabitants in America.

The theory that America had human inhabitants before the last Ice Age has not been proved, and it should be "pronounced legally dead," Dr. Herbert J. Spinden declared in his presidential address before the Association.

It was understandable, he said, that science should have hunted in America for the stone fist axes and scraping tools of the Old Stone Age when these relics of prehistory first came to light in Old World countries over 50 years ago; but even then the odds seemed against the search. All prehistoric people ever found in North America, he added, have proved to be no earlier than the Neolithic, or New Stone Age.

"Of course," added Dr. Spinden, "revolutionary new evidence would justify reconsideration of even the deadest theory."

Dr. Spinden based his decision, that

hunting for the Old Stone Age in America is a "lost cause," on evidence that a wide zone across the Old World was unused by man until after the last continental ice sheet melted. Ancestors of the first American immigrants must have entered this great zone, 1,000 miles deep and stretching across northern Asia, in order to approach the entrance to America via Bering Strait. Throughout the time the zone was blocked or unused, Dr. Spinden concludes, there was no immigration to the New World.

Citing the suggestion by Prof. E. A. Hooton of Harvard that America's Indians have some traits suggesting infusion of white races, as well as Mongolian, Dr. Spinden said that a mass migration of different culture elements may explain how America was peopled. Such a mass migration could have been started by the invasion of northern Europe by Germanic peoples. These displaced peoples already living in the north, and they moved eastward, finally spilling over into America. Spread of desert conditions in central Asia may have been another factor urging migration.

"But this mass migration," said Dr. Spinden, "could not have taken place until northern Europe and Asia were themselves occupied."

Science News Letter, January 2, 1937

SEISMOLOGY

## Quake Records "Fuzzed," So Epicenter Is Mystery

THE EXACT location of the earth-quake that ruined San Vicente in Salvador will probably remain a permanent mystery. Earthquake-detecting instruments in American and Canadian seismological observatories for some reason forsook their wonted accuracy in this very critical moment, and sent in conflicting data which the scientists of the U.S. Coast and Geodetic Survey could not bring to a satisfactory pinpoint on the map.

Part of the difficulty came from microseisms. These are tiny earth tremors that go on constantly, but sometimes increase their amplitude greatly in what are called microseismic storms. Such a storm, of unusual proportions, swept over a large part of the United States during the time of the Salvador shocks, and "fuzzed up" several of the earthquake records badly. Microseismic storms often coincide with severe weather disturbances, though it is not certain that they are causally connected.

Science News Letter, January 2, 1937