



**TWEEDLEDUM AND TWEEDLEDEE**—A very unusual pair of Paracas post-fired ceramic pots, which marked the Paracas culture in the Nazca and Ica Valleys, are shown here. The art is unique because the colors of resin, or pitch, were applied after the pot was fired. In all later cultures, the colors are applied before the pot is fired.

## ARCHAEOLOGY

## Human Heads as Trophies

► HUMAN HEADS were carried as grizzly trophies by a now extinct Peruvian people, the Nazcas, which flourished about the time of Christ.

This was shown by excavations made by Dr. William Duncan Strong of Columbia University and described at the Society for American Archaeology meeting in Albany, N. Y.

The explorations laid bare the whole broad panorama of cultural development in ancient Peru from about 6,000 to 7,000 years ago to just before the coming of the Spanish in 1532. The most ancient peoples were obsidian workers who knew neither agriculture nor pottery making.

An important find of Dr. Strong's expedition of last year was that the famous Paracas people, noted for their mummies, exquisite textiles and beautiful pottery, were not only farmers, warriors and artists, but great builders of temples and towns. People who lived later in Peru's Nazca region were even greater builders.

Dr. Strong found remains of the Paracas in a region occupied by the Nazca. Paracas articles underlay the remains of the Nazca, showing that the Paracas people were older and ancestral to the Nazca.

The Nazca warriors were head hunters. They took the heads of vanquished enemies, removed the flesh under the skin and replaced the skin over the cleaned-out skull. They held the lips together with two cactus

thorns, as did the Jivaro warriors who shrunk heads for trophies a thousand years later. The Nazca warrior used his sling to hang the human heads around his own neck as proof of his military skill.

Some of these grizzly trophies were found by Dr. Strong's party buried with the warrior.

The culture of the Nazca people faded out before the invasion of Tiahuanaco people from the Andean Highlands to the east. Their graves were also uncovered by Dr. Strong and they were found to contain ornaments of silver and gold.

Dr. Strong's party worked in cooperation with the Regional Museum of Ica. Some of the finer pieces he brought back to New York are now being shown in the Museum of Modern Art there.

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## INVENTION

### Tea Bag Holder Receives Patent

► FOR THAT afternoon spot of tea, Joseph Scheidt and Lester Allen Teegardin of Streator, Ill., have invented a combination tea bag holder, stirrer and squeezer. It has a hook to catch on the teacup's side, and a spring clasp for holding the tea bag's string. They received patent 2,678,000.

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## BACTERIOLOGY

### Germicide Evaluation Simulates Wounds

► A METHOD of evaluating germicides that simulates actual treatment of wounds has been developed by Dr. A. J. Salle, University of California at Los Angeles bacteriologist.

Bits of living heart tissue from chick embryos are placed in several test tubes with bacteria commonly found in wounds. After the bacteria have invaded the tissue, just as they do in infections, various dilutions of the germicide are added. Then the germicide is washed off, and the tissue is placed in flasks and observed.

No bacterial growth means all the bacteria have been killed. If the tissue does not grow, it indicates the germicide is toxic to tissue.

By comparing the highest dilution that still is toxic to tissue with the highest dilution that kills all the bacteria, Dr. Salle arrives at the numerical value. He calls it the toxicity index.

An index less than one means the germicide is more toxic to bacteria than tissue. The smaller the index, the more nearly perfect the germicide.

Iodine with a toxicity index of 0.1 and mercuric chloride with .83 are the most effective germicides evaluated by the new method.

The commonly employed method of germicide evaluation, the phenol coefficient test, does not consider tissue effect. It merely compares a substance's germ killing ability with that of carbolic acid.

The new method is a refinement of techniques he developed several years ago.

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## PHYSICS

### "Super-Radium" From Waste of Atomic Plants

► A "SUPER-RADIUM" for use in treating cancer is a by-product of the atomic energy program.

To join cobalt 60, there is now cesium 137. Oak Ridge National Laboratory has produced a little more than two ounces of this powerful radioactive substance, contained in fission products of the extremely "hot" spent fuel of atomic piles.

The big job has been to separate out the exploding atoms of this element. The two ounces plus of cesium 137 so far produced have more radiation energy than a pound of radium which, at current rates, is worth more than a million dollars.

In a few months, the radioactive cesium will be put to work actually treating cancer patients. Now it is being studied further in the laboratories.

Cesium lasts longer than cobalt 60, but not nearly as long as radium. Radiation from cesium 137 is reduced to half in 37 years, compared with 5.9 years for cobalt 60 and almost 1,600 years for radium.

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