

stations of the major countries of the world have meticulously maintained their stations on the frequencies assigned to them by international agreement.

"All realize that nothing but chaos would result from intentional interference."

The thing to do, in the battle of the ether waves, is to increase the power of the signals so that the station can be heard at all times with superior reception. The new demountable filament tubes of the new 100 kilowatt is the answer of engineering ingenuity.

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PHYSIOLOGY

Use of Anti-Bleeding Vitamin K Extended

PATIENTS suffering from more than one serious ailment in which there is danger of fatal bleeding can be saved by treatment with the anti-bleeding vitamin K. This increased usefulness of the vitamin appears in a recent report by Drs. R. L. Clark, Jr., C. F. Dixon, H. R. Butt and A. M. Snell, of the Mayo Clinic.

Liver disorder or injury, intestinal obstruction following operations for cancer or other conditions, chronic ulcerative colitis, and other severe intestinal disturbances are among the conditions in which the vitamin may be valuable in preventing or controlling bleeding. The vitamin, of course, has no effect on the ailments themselves, but only on the tendency to hemorrhage which may be a serious complication in such conditions.

The kind of ailments in which the vitamin is likely to be valuable can be determined from the facts now known about the vitamin's role in preventing bleeding and about its utilization in the body.

Vitamin K, the Mayo Clinic physicians state, is responsible for the normal maintenance of one of the most important of the coagulating constituents of the circulating blood—prothrombin. This substance apparently is formed in the liver with the aid of vitamin K, but the liver cannot get the vitamin unless there is bile of normal composition in the intestines and a normal absorptive surface in this part of the digestive tract. Disorders of the liver or of the intestines, or conditions which prevent passage of bile into the intestines or which make it impossible for the patient to eat vitamin K-containing foods may, either alone or in combination, cause a dangerous lowering of the prothrombin pro-

duction, with consequent tendency to hemorrhage.

The vitamin is apparently distributed widely enough in foods so that normal persons can get an adequate supply. For patients too sick to eat or unable to uti-

lize the vitamin from food a form of the vitamin from fish meal or alfalfa is now available for treatment and recent chemical discoveries suggest that the pure vitamin itself will also soon be available.

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ARCHAEOLOGY

Athens' Ancient Market Place Yields Archaeological Treasure

Contents of Royal Chamber Tomb Indicate Athens Was Not Unimportant in Fourteenth Century Before Christ

THIS year's discoveries, among them a royal chamber tomb of the Mycenaean age, by field workers at the Agora, market-place of ancient Athens, are "of the greatest importance," according to Dr. T. Leslie Shear, field director of the work. Dr. Shear, professor of classical archaeology at Princeton University, recently returned from directing the ninth season of work at the Agora for the American School of Classical Studies at Athens.

In addition to the tomb, which contained interesting sacrificial offerings, findings of the Agora workers included a number of ancient graves and wells, important boundary stones, the great drain of the Agora, and decorative objects, pottery and coins. During the 18 weeks of work, 43,852 tons of earth were removed, and 8,789 coins were uncovered.

Sacrificial offerings in the royal chamber tomb, assigned to the fourteenth century B.C., indicate that Athens of this period was not a poor, unimportant settlement. Pottery, gold ornaments and ivory boxes left in the tomb indicate a wealth and artistry of craftsmanship hitherto unknown.

Prior to this discovery, scholars believed that Athens was of little importance during the time of King Erechtheus, since the city had played only a small part in the siege of Troy.

These offerings, including more than one hundred pear-shaped leaves and rosettes of thin gold, two ivory boxes, or pyxis, a bronze mirror and ivory hairpins, were found, with the empty grave in the burial chamber. Collapse of the roof soon after burial filled the chamber with rock, and caused the hurried removal of the body, possibly that of Erechtheus' queen, and some of the offerings.

The doorway to the chamber, at the end of a passageway, was sealed up with rocks at the time of burial, and had never been opened thereafter. Removal of the

body and of the offerings was effected by means of a trench dug directly over the grave.

In the eastern part of the chamber, which had been untouched since the burial, were found the broken fragments of six large vases, in the positions in which they had originally been placed. These pieces are fine examples of Mycenaean pottery, and led the archaeologists to assign the tomb to that period. Fragments of the vases were carefully gathered and the objects almost completely restored.

A second and larger ivory pyxis, only slightly damaged, was also found in the eastern portion of the chamber. This piece, according to Dr. Shear, is "a masterpiece of artistic design and craftsmanship," showing the talent of the artists of the Mycenaean period. On the lid of the box is a representation of deer and griffins, which shows "a mastery of technique which inspires the scene with life."

Additional importance is attached to the tomb, because "archaeologists now have for the first time a tomb of the members of the dynasty which occupied the 'strong house' of Erechtheus on the Acropolis which is referred to by Homer in the 'Odyssey.'"

"We obtained some fine neolithic vases from shallow wells on the slope of the Acropolis," Dr. Shear reported, "and with them were two human skulls of a very primitive type."

The surprising discovery of a cemetery of the sixth century B.C. in the southwest corner of the area was reported. It seems to have been a burying ground of a family with foreign affiliations, for the dedicatory offerings included some imported objects, such as Lydian perfume jars, Corinthian vases, and a scarab of blue glass pottery.

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