GENERAL SCIENCE

Research Results Lie Fallow Unless "Sold" to Public

Time Should be "Ripened" if Not Found Ready Ripe for Announcement of Discoveries, Says Prof. Bancroft

GREAT scientist must also be a great salesman if he wants his discovery to be understood and welcomed in his own time. This idea was advanced at the dedication of the Science Hall of the University of Southern California by Prof. Wilder D. Bancroft of Cornell University.

There is more danger of a great new idea's not being accepted than most people realize, said Prof. Bancroft. To be received by the multitude of non-discoverers an idea must obviously be acceptable to them in some way or other. This is one of the most fundamental of all questions involved in human progress and at the same time one of the most difficult.

Quoting a great chemist of last century, Prof. Bancroft continued, "'When the prospective genius has done his great work and has communicated it to the world, one likes to think that he can go quietly to bed and wake up famous the next morning.' This, however, hardly ever happens. Very often the work of getting the new idea accepted is scarcely less than that of originating it.

"In many cases the man who has had the idea is not able to get it accepted and this task falls to the lot of another man who may be less clever, but who speaks a language which makes the world conscious of the treasure which it had been offered in obscure words."

Prof. Bancroft said that a new discovery is accepted for one of four reasons. It is accepted because it is made by a man of recognized authority or of personal magnetism, because it clears up points over which people have puzzled or because it shows what to do next, because of extensive proofs, or because the results are useful or striking.

If a good idea falls flat it is customary to say that the time was not ripe for it. However, it may be possible in some cases to change the temper of the time or as Prof. Bancroft said, to "ripen time." "To ripen time," said Prof. Bancroft, "we must establish our view by many proofs; we must discover something for which the world is ready; we must educate the world up to our dis-

covery; or somebody else must educate the world for us."

Dr. Bancroft gave many examples to show that new discoveries had often to wait many years before being accepted by scientific men. Avogadro's law, fundamental in modern chemistry, was formulated in 1813 but had to wait over 40 years before trained chemists really understood and believed in it.

Did Not Get Credit

A Russian chemist, Lomonossoff, who lived from 1711 to 1765, had views on oxidation, the wave theory of light and the nature of heat that were from 50 to 100 years in advance of his time. Thus credit for his discoveries, which were many, has been distributed among others. Even today his name is little known. It is only a few years since his work was rediscovered and reprinted by a fellow-countryman.

"One cannot count on having someone else exploit one's discoveries and the worker in pure science will not and should not limit himself to discovering only those things which the world knows that it wants," concluded Prof. Bancroft. "Consequently, he must make up his mind to sell himself to the scientific world. . . Since the greatest discoveries are likely to be the ones for which the world is least ready, we see that the greatest scientific men should really be super-salesmen."

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ARCHAEOLOGY-PHYSICS

Mummy's Interior Studied Without Spoiling Exterior

ITH THE USE of X-ray photographs such as these, Dr. William H. Fox, director of the Brooklyn Museum, and Harold G. Petsing, of the Westinghouse Company, have been able to determine the condition of a mummy's interior without spoiling the specimen for exhibition purposes.

The photograph on the left revealed a beautiful specimen and showed two small jars, whose existence was previously unsuspected, wrapped close to the head. The other mummy, normal on the outside, was found by X-ray examination to be greatly disturbed within. The head was detached and turned around so that it pointed down; the lower jaw bone and most of the teeth were missing; and most of the bones were collected in a confused mass in the center of the body.

X-ray studies of mummies have also been made by Roy L. Moody on specimens supplied by several museums.

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ORNITHOLOGY

Trumpeter Swans Again Nesting in Yellowstone

THE APPEARANCE of eight pairs of trumpeter swans was reported in Yellowstone National Park during May, which is their nesting period.

Conservationists hail this as good news, for these majestic birds are one of the species which are facing extinction under changing conditions, and the Yellowstone is one of the points where it is hoped to check the ebbing tide.

Unless the few remaining trumpeter swans in existence can nest and rear their young safely, the species will soon join the dodo and the passenger pigeon.

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THE NEW STUDIES THE OLD