

ECONOMICS

Credit Came Before Money

Students of primitive tribes have found credit used in barter systems where money is unknown, a London economist explains.

► WHEN those bills pile up at the end of the month, you may get some consolation out of a scientific discovery: man used credit even before he invented money.

This and other scientific findings about the early use of money clash with what you will find in most economics books. And the economists, including old Adam Smith, are dead wrong, charges a London economist.

Dr. Paul Einzig takes his case to the scientists in the British journal, *NATURE* (Dec. 25). Ethnologists, the scientists who study today's primitive tribes, may know more about the early history of money than the economists, he points out.

Credit, the economics books generally explain, started long after money was invented, when cash dealings got too complicated. Scientists have found credit used in barter systems where goods are traded for other goods and money is unknown. Blacksmiths, for example, are paid in goods after harvest by farmers whom they serve the year around.

Actually, Dr. Einzig argues, credit is more important in barter dealing than in the modern money system. The blacksmith could be paid cash for each job after money came into use.

The invention of money, as the economists tell it, came when trading goods for goods became too involved. Ethnologists have discovered that the first use of money by primitive tribes is for such things as setting a price for brides, making religious sacrifices, paying subscriptions to secret societies or paying tributes, ransoms or blood money.

"It seems reasonable to assume," declares Dr. Einzig, "that money first developed to serve matrimonial, political or religious payments, and was only later adopted gradually for commerce."

When money does come to primitive tribes, it is, as you might guess, no economic "cure all." Economists tend to assert that money replaces barter. But studies of primitive peoples show that barter may continue to be, and is today, used even when money has been introduced.

The usefulness of barter has been underestimated, Dr. Einzig says. Some advanced ancient civilizations used barter, even though they had money. Some communities, he suggests, may have preferred to trade goods and services rather than cash.

Scientific findings differ with the economist's views on the origin of barter as well as of money. Barter began in the most primitive tribes when individuals split up the spoils of conquest, ethnological evidence

indicates. Contrary to classical economics, barter started before division of labor and private property were established.

Dr. Einzig urges economists to study the findings of ethnologists about money, instead of accepting the "the vague and out-of-date observations on the subject in Adam Smith's 'Wealth of Nations'." And more monetary theory might help the scientists study the economics of primitive peoples, he concludes.

Science News Letter, January 29, 1949

MEDICINE

Need Contact Compression To Make Broken Bones Heal

► THE ENDS of broken bones must be in contact and under compression if they are to unite into one strong bone again.

Microscopic studies showing this were reported by Drs. G. W. N. Eggers, Thomas

O. Shindler and Charles M. Pomerat, of the University of Texas School of Medicine at Galveston, at the meeting of the American Academy of Orthopedic Surgeons in Chicago.

Surgeons treating patients with broken bones can make use of these findings, which were made on rats, by applying the longitudinal compression forces of the patient's muscles, Dr. Eggers pointed out.

In the studies the Texas group examined under the microscope thin slivers of bones of rats that had been broken and then set.

"The bones which were under contact and compression united and the margins which were not under compression and contact did not unite," Dr. Eggers reported.

The work, he said, is "related to the basic fundamental physical principle which underlies the stimulation of osteogenesis (bone formation) and the healing of bone injuries. This experiment indicates a physiologic response to physical requirements to which bones are exposed."

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A chemical containing chlorine, bromine and methane, known as *chlorobromomethane*, is proving effective in fire-extinguishers in fire-fighting; it was developed in Germany early in the war but is now produced in America.



VISUAL CANCER EDUCATION—Doctors will be better able to grapple with this health foe as a result of a new medical training film "Cancer: The Problem of Early Diagnosis", which is produced jointly by the American Cancer Society, New York, and the National Cancer Institute, Bethesda, Md. Here the surgeons are inspecting an X-ray before starting an abdominal operation for cancer.