

Accidental Inventions

SOME of the most important things man has originated have apparently been done by accident.

Domestication of animals, although of unknown time and place of occurrence, is rather generally conjectured to have begun when a Stone Age hunter, instead of killing the young of some animal he had taken for food, brought them home alive and let them tumble around the cave floor with his own children until they grew up tame. Perhaps cultivation of plants began in much the same way, through the spontaneous sprouting of seeds or root fragments cast aside on the kitchen midden.

Isn't it just possible that the art of making polished stone tools and weapons, which is the "key" technique that distinguishes the Neolithic Age from the Paleolithic, may have come to pass in a similar semi-accidental fashion?

The great cultural advance commonly credited to the Neolithic or New Stone Age is the beginning of agriculture. Paleolithic man, who could make very good flaked or chipped stone tools, did not polish them; neither did he grow food crops. So we commonly say that Neolithic man invented agriculture.

Isn't it possible that it was the other way around: that agriculture was responsible for the first polished stone tools? We can picture the first field hand (very likely a woman) hoeing a patch of yams or half-wild barley with a rudely shaped stone blade fastened to a stick. Her husband, squatting in the shade of the hut nearby, is patiently pecking away at a piece of stone he is shaping into an ax-head.

Presently his spouse comes to him to have the hoe-blade refastened; it has worked loose again. Impatiently the man

lays aside his job to attend to the hoe. Then he notices how rubbing in the earth for hours has made it smooth. He feels at its surface with his rough finger.

An idea has suddenly popped into his shaggy head. Maybe if he rubbed earth (better yet, sand) on that ax-head from now until sundown it would become a smoother, better tool. Worth trying, anyway. And so the New Stone Age is born.

Probably the invention of polished stone implements was not quite so sudden an affair as that. Great inventions are seldom the work of one individual genius. But the first step in the improvements that eventually produced some of the beautifully shaped and finished objects we admire in museums may have been taken in some such humble way as that.

Science News Letter, October 25, 1941

PUBLIC HEALTH

Blood and Plasma Banks Saved Thousands in England

Birmingham, England, Has 18,000 Registered Donors Who Regularly Contribute; Nothing Like It in U. S.

BLOOD and blood plasma banks in England have saved thousands of lives of civilians who would otherwise have died of shock due to injury and loss of blood, Capt. Charles S. Stephenson, Medical Corps, U. S. Navy, reported to the Secretary of the Navy on his return from a seven weeks' inspection tour of bomb-torn England.

A large reserve of dried plasma must be built up in the United States, he declared, for use in civil catastrophes and time of war.

Birmingham, England, he said, has 18,000 registered donors who regularly contribute blood to the blood and plasma bank for that city. Other English cities have proportionately large registers of blood donors.

"We have nothing like that yet in the United States in any city of the same size," Capt. Stephenson said, referring to the Birmingham donor register.

Largest single American blood bank is in Baltimore, Md., where 5,000 blood donations have just been completed under

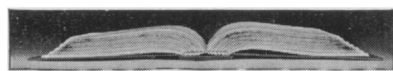
the auspices of the American Red Cross. The Red Cross national bank for use of the armed forces and civilians in case of catastrophe, of which the Baltimore bank is a part, now has 15,000 blood plasma units on deposit. Plans call for building this initial bank to 200,000 units.

Dried blood plasma is made by separating the plasma or fluid portion from the rest of the blood, freezing it and drying under a high vacuum. The dried plasma keeps for as long as nine years, can be used for any patient without preliminary typing, and is easier to transport than fluid blood or plasma. It is produced under strict control to insure its being germ-free.

"I studied precise clinical reports (on its use) in England and found that the technique is not only successful beyond expectations, but that it can be carried out under conditions of stress and strain on the part of the medical staff which would at first appear impossible," Captain Stephenson said.

Science News Letter, October 25, 1941

Keep your copies of SCIENCE NEWS LETTER safe and sound in our special binder . . .



PRODUCED BY GILMER

With SCIENCE NEWS LETTER stamped in gold on front and spine, this excellent buff buckram binder costs \$1.25 postpaid. Snap new issues into the cover with a little unbreakable hooked wire. Remove any issue you desire and reinsert it just as easily. Holds 26 copies, opens freely, allows pages to lie flat, strong enough to last for years. We will refund your money if you are not satisfied. Send check or money order to

SCIENCE NEWS LETTER, 1719 N St., N. W., Washington, D. C.
