



LIGHT BUT STRONG—This airborne bulldozer is light enough to be flown to advanced combat positions, but is capable of doing the heavy work of its weighty predecessors.

ENGINEERING

Airborne Tractors

► **SPECIAL** road-building and other earth-moving machines, suitable for transportation by airplane, are being developed and tested by the U. S. Army Corps of Engineers. A combination of strength and light-weight is the aim.

Object of the program is earth-moving machines light enough to be rushed by air to advanced combat positions but rugged enough to do the work of the heavier machines usually employed for such purposes. A top weight of 16,000 pounds is the desirable limit. Included are such machines as tractors, dozers, cranes, scrapers, power shovels and rooters.

Some of the machines being developed are lighter models of present standard ma-

chines which are equipped with the power unit of the heavier types. These make up in speed and by other means the lost advantage of sheer weight. Some of the equipment has built-on containers to hold sand or other ballast to provide increased weight for traction when in actual use.

Among the items undergoing tests is a specially designed airborne crawler tractor of a type not commercially available. It has a hydraulically operated dozer blade, and is powered with an 85-horsepower diesel engine. The use of hydraulic controls makes available the mass of the machine for the bite into the earth, rather than only the weight of the pan and blade as in the customary cable-operated blade.

Science News Letter, December 9, 1950

SOCIOLOGY

Family Stability Myth

► **THE IDEA** that families were more stable in "the good old days" is largely a myth, declares Dr. Ray H. Abrams of the University of Pennsylvania sociology department.

There were "free love" colonies in the 1800's, he points out. Movements for equal rights for women and widespread prostitution a century ago were other signs of family instability in "the good old days," in Dr. Abrams' opinion.

Dr. Abrams does not think much of the status of family stability today, either. In a special "family stability" issue of the *ANNALS OF THE AMERICAN ASSOCIATION OF POLITICAL AND SOCIAL SCIENCE*, (November), he says:

"If we were to add to the divorce rate the desertions, the separations, and those who would like to sever the marriage bonds but for one reason or another do not, the sum total of marital disorganization would

be at least two to three times that represented by the divorce statistics."

Declaring that society seems more interested in preserving the status quo of its social institutions than in determining whether these human institutions actually promote human welfare, Dr. Abrams advocates that we get away from our fear of change.

"Ever before us is the blind worship of social institutions and the failure to realize that these institutions do not necessarily give us genuine stability," he says.

As to what makes a family stable, Dr. Abrams declares that "within the stable family there are enough inner resources to enable it to pull itself together in time of crisis or dis-equilibrium, enough resilience to enable it to come back to relative normality, and interrelationship between the members of the family which is strong enough and meaningful enough to continue functioning in terms of the emotional needs of the individuals concerned."

Science News Letter, December 9, 1950

PHARMACY

World Standard Set For Arthritis Remedy

► **ARTHRITIS** patients and their doctors all over the world will be helped by action taken by the World Health Organization's expert committee on biological standardization at its meeting in Geneva.

The committee set up an international standard for ACTH. This is the famous pituitary gland hormone which, like the adrenal gland hormone, cortisone, has been bringing relief to aching, crippled joints of arthritis sufferers.

Setting up an international standard gives manufacturers everywhere a single, internationally accepted measure for the activity of the substance they produce. When a doctor prescribes a dose of ACTH, therefore, he and his patient can be sure that the activity of that amount of ACTH will be the same no matter what manufacturer in what country produced the material the druggist dispenses. It will be the same, that is, if manufacturers all follow the international standard, which presumably they will.

Research workers, seeking to learn more about this antiarthritis substance, will also benefit from existence of the international standard.

International standards were set up for 15 other biological materials, including streptomycin and dihydrostreptomycin and two new antibiotic, or mold, remedies, aureomycin and terramycin. Blood-grouping serum for detecting anti-Rh factor also got an international standard.

Previously, WHO and its predecessor in this field, the Health Organization of the League of Nations, had set up 39 other biological standards.

Science News Letter, December 9, 1950