



GIANT CARRIER—The new U. S. Army "Barc," amphibious troop and supply carrier, depends upon the world's largest tires for mobility on beaches and land. The rubber used in these four tires, according to the Firestone Tire and Rubber Company, would make more than 600 popular-size passenger car tires.

BIOCHEMISTRY

Hypertension Effects

Simultaneous treatment with two new drugs reverses many effects of high blood pressure. Over 200 patients have benefited from double drug method.

➤ MANY OF the effects of high blood pressure, especially congestive heart failure, kidney trouble and angina pectoris, are reversed when patients are treated with two relatively new drugs at the same time, Drs. Henry A. Schroeder, H. Mitchell Perry, Jr., and John D. Morrow of Washington University School of Medicine, St. Louis, reported at the meeting of the National Academy of Sciences in that city.

More than 200 patients have been treated with "benefit" by this double drug method, they reported.

The two drugs are hexamethonium chloride and 1-hydrazinophthalazine.

High blood pressure can only be reversed, these scientists declared, by antagonizing simultaneously the two influences which raise the blood pressure. One of these is dependent on the blood vessel constricting mechanism of autonomic nerves. Hexamethonium chloride blocks this influence by acting on the ganglia or centers for such nerves.

The other blood pressure raising influence comes via the kidneys and is started by an anemic state of these organs. It is dependent on a chemical called pherentasin and

probably other primary amine chemicals in the blood. To inactivate pherentasin, 1-hydrazinophthalazine is given.

The drugs must be given in frequent doses because they are destroyed or excreted rapidly.

Further Research Needed

A manufacturer of the two drugs for high blood pressure, hexamethonium chloride and 1-hydrazinophthalazine, Ciba Pharmaceutical Products, Inc., Summit, N. J., warned that, although both drugs have now been put on the market, patients should not try to urge their doctors to use them. The reason given by Ciba is a conflict between medical experts on the drugs. Further research, it is suggested, will resolve this conflict.

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The quality of *honey* is not revealed by its color.

Many *clock gears* can be pressed from powdered metal at about half the cost of previous methods.

PEDIATRICS

Success With Six-Hour Baby-Feeding Schedule

➤ SOME 300 babies in the Miami area are being successfully raised on a new, easier-on-mother, feeding schedule. Right from birth, these babies get fed every six hours instead of at the customary two-, three- or four-hour interval. They get solid foods as early as the second day of life.

The babies are as healthy, gain as well and have as red blood as those fed on more conventional schedules, Dr. Walter W. Sackett, Jr., of Miami reported at the meeting of the Southern Medical Association in that city.

Dr. Sackett devised the schedule partly to relieve mothers from losing sleep and being always tired because of the constant demands of their babies when feeding them every two, three or four hours. This fatigue, plus undue concern over the welfare of the babies, contributes to the tension and fears of present day living and helps bring on physical and functional disorders, Dr. Sackett believes.

Babies themselves, he finds, have less upsets, do not become feeding problems and are less likely to develop allergies when on the new schedule.

Mothers who nurse their babies are able to do it every six hours, just as many mothers with wartime jobs found they could nurse their babies only twice a day.

The six-hour schedule calls for three daily meals and a middle-of-the-night feeding. The latter is to be stopped, Dr. Sackett advises, as soon as mother or baby finds it easier to sleep through the night than to wake up for the feeding.

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BIOLOGY

Pieces Not Fitted Into Photosynthesis Puzzle

➤ VARIOUS PIECES in the solution of the puzzle of photosynthesis, or how the green plant uses the sunshine's energy, are being discovered, but a direct and complete understanding has not yet been obtained, Prof. Martin D. Kamen of the Washington University School of Medicine told the National Academy of Sciences meeting.

Among the discoveries made, as listed by Dr. Kamen, are:

Radioactive labeling of compounds and new analytic techniques have determined the intermediate chemicals formed during reactions taking as little as a few seconds.

Stable, active cell-free systems exhibiting a number of the partial reactions of photosynthesis have been achieved. These demonstrate that the photoactivation process produces reducing systems that may be coupled with events that take place during respiration.

Studies with bacteria have revealed some details of the manner in which synthesis of cell constituents is affected by photoactivation.

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