



NIGHT DISPLAY—Streams of fire from twin afterburners of Air Force Scorpion F-89D's, long-range all-weather interceptors, gave this night display.

MEDICINE

Black Eyes Healed

► INSTEAD OF beefsteak, eye specialists at Philadelphia General Hospital have been trying shots of a digestive enzyme, trypsin, for black eyes.

It worked in five cases, and also gave "impressive" results in seven cases of other eye conditions including hemorrhage of the retina which caused sudden loss of vision.

With the object of encouraging use of trypsin, the eye specialists, Drs. Joseph M. Hopen and Francis N. Campagna, report the good results in *Journal of the Philadelphia General Hospital* (March).

They used a specially prepared purified crystalline trypsin from beef pancreas, called Parenzyme by its manufacturer, the National Drug Co. of Philadelphia.

In one case, a 45-year-old man suffered a severe beating about the face and eyes. Both eyes were swollen shut, and cuts in the eyelids were difficult to suture because of the liquid-filled swelling. Improvement was noted after 24 hours of Parenzyme therapy, and in 48 hours the patient was well on the road to recovery with one eye fully open.

For comparison, another patient was first treated by conventional means. He had been hit with a blackjack, and the eye socket had swollen to the size of a lemon. Every form of treatment including the enzymes streptokinase and streptodornase was given without improvement, and surgery performed to relieve pressure also provided no relief.

After a week, this patient was started on Parenzyme therapy. Again improvement was noted in 24 hours, and the swelling

PHARMACOLOGY

Modern Medicines Cheap

► MODERN MEDICINES are cheap. That is the new theme song of the nation's pharmacists who are tired of hearing their drug store customers complain:

"What, \$8 for a little bottle of pills! That's highway robbery."

The medicine cost \$8, or even \$15 or \$20, the druggists point out, is really a bargain. It may save not only the patient's life, but hundreds of dollars in doctor, nurse and hospital bills, to say nothing of time lost from work.

In 1927, for example, the average hospital, doctor's and nurse's bill for a case of pneumonia in a Philadelphia hospital amounted to \$358. The average hospital stay was five weeks and there was a further period of convalescence at home. The loss of earnings during all this brought the total cost of the illness up to about \$1,000.

Today the average patient with lobar pneumonia gets well in less than two weeks without any period of convalescence. Most pneumonia patients last year were treated

at home. Cost of the medicine if it was penicillin was about \$15.12 at 1953 prices and \$29.68 if one of the newer "broad spectrum" antibiotics was used.

This example is given by Dr. Theodore G. Klumpp, president of Winthrop-Stearns, Inc., pharmaceutical manufacturers, and also president of the National Pharmaceutical Council, Inc., in a report to the *American Professional Pharmacist* (July). This professional journal of the druggists is currently urging druggists and doctors to explain to patients what they get when they pay \$4, \$10 or \$20 for today's medicines and why these seemingly expensive medicines are a bargain.

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ENGINEERING

Diesel Fuel System Allows Lighter Engines

► A DIESEL fuel system that may simplify servicing and overhauling problems and costs, and thus may bring diesel engines into wider use in medium-heavy trucks was described at a meeting of the Society of Automotive Engineers in Los Angeles.

Lighter weight diesel engines may be made possible by the higher engine r.p.m.'s this new system permits.

The new fuel system, developed by engineers of the Cummins Engine Company, Inc., eliminates the necessity of timing the fuel pump to the engine, and is claimed to be simple enough to be understood by the average mechanic. This factor may eliminate the necessity for diesel service shops to maintain fuel pump specialists.

The fuel system has been tested in actual operation in excess of 21,000,000 miles.

The flexibility of the system permits a wider span of engine speeds. The system has been used on experimental engines at rotational speeds over 4,000 r.p.m.

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INVENTION

Finger-Sleeve Brush For Brushing Teeth

► A TOOTHBRUSH that can be slipped over the finger has received patent 2,686,325. It was devised by Louis Silver of Brooklyn, N. Y., and is made of "resilient rubber-like material."

The fingertip end is closed except for a small opening for drainage. It also has a small pointed projection for cleaning between the teeth. The brushing action comes from ridges on the underside of the fingertip end that give a squeegee action which "thoroughly cleans the whole tooth and gum area," Mr. Silver says.

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MARINE BIOLOGY

Much Air in Water Harms Some Creatures

► WATER WITH plenty of air in it is actually harmful to some of the invertebrate mud dwellers in pond and sea, two University of London biologists have found.

This surprising discovery is quite the reverse of what zoologists have accepted as a natural law, that aquatic animals benefit by as much dissolved air as they can get. For this reason, a catch is usually kept in aerated water. Yet in summer when the deep water of some lakes has low oxygen content, there is an active growth of animals in and above the mud.

Drs. H. Munro Fox and Angela E. R. Taylor of Bedford College, University of London, report in *Nature* (Aug. 14) that some lowly creatures survive longer in one-fifth aerated water than in water into which air was forced.

Some other invertebrates survived quite as well one way or another. A few did not do so well. Some actually grew bigger in the poorly aerated water.

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