

MEDICINE

Combatting Heart Disease

Penicillin and heparin, anti-blood clot chemical, show promise of conquering one almost always fatal form, endocarditis caused by germ infection.

► HOPE that a combination of penicillin and heparin, an anti-blood clot chemical, may conquer one almost always fatal form of heart disease appears in a report by Dr. Leo Loewe, Dr. Philip Rosenblatt, Dr. Harry J. Greene and Mortimer Russell, of the Jewish Hospital, Brooklyn, N. Y. (*Journal, American Medical Association*, Jan. 15)

Seven patients suffering from subacute bacterial endocarditis, one of them actually dying, were all restored to health by the combination of heparin and penicillin. Whether they have been cured cannot be told until more time has elapsed. Sometimes patients with this disease appear to recover and remain free from symptoms for some time, only to relapse and die.

This kind of heart disease is due to germ infection. The germs grow on the lining membranes of the heart in clumps mixed with fibrin from the blood. Successful treatment has to be double-barreled, aimed at both the germs and the

tendency if the blood to form clots in which the germs can grow.

Heparin for fighting the blood-clot tendency and both penicillin and sulfa drugs to fight the germs have been tried before, but the results have been mostly disappointing.

The Brooklyn scientists have devised a new technique for giving heparin—that of depositing it in banks under the skin instead of putting it directly into the blood stream. The combination of this method of giving heparin plus large doses of penicillin is, they believe, responsible for the good results they obtained.

Science News Letter, January 22, 1944

CHEMISTRY

New Versatile Plastic Made from Cheap Gas

► A NEW, highly versatile plastic, named polythene, has been developed by Du Pont chemists and is now ready for

the market in commercial quantities—provided necessary allocations for war purposes can be shown by the processor. It is stated to possess physical qualities that will make it useful in such peacetime employments as toothpaste tubes, wire insulation, water-proof coatings, piping and adhesives. In thin sheets it is flexible without being limp and rubbery, while in thicker shapes it is stiff enough to be classified as a rigid plastic.

Polythene is made by the polymerization, or chemical welding, of large numbers of ethylene molecules. Ethylene is a gas derived from petroleum, natural gas and coal, hence is a cheap, easily obtainable raw material.

Science News Letter, January 22, 1944

CHEMISTRY

Role in Public Affairs Urged Upon Chemists

► CHEMISTS should carry their knowledge of chemistry into the everyday affairs of their lives as citizens, declared Gaston F. Dubois, vice-president of the Monsanto Chemical Company, in his address in New York as recipient of the Perkin Medal, one of the highest awards in American chemical science. Such public activity on the part of scientists, he stressed, must not take on the aspect of lobbying, but should be a simple and direct expression of civic spirit.

Mere negative criticism of governmental activities gets nowhere, the speaker pointed out, characterizing it as “useless and unbecoming.” If any group of people do not like the way things are being done, it is up to them to make their criticism constructive by pointing out possible better ways.

Chemists, as such, are entitled to an attentive hearing on public questions where their knowledge is pertinent, Mr. DuBois held, because of the great importance of chemistry in everyday life, and its supreme importance in time of war. He went back to World War I for an illustrative case in point:

“Thirty years ago there was a belief that the business of dealing with chemicals was something for the British and Germans, but not for Americans. The public in the United States did not know much about chemistry or chemists. The press, our statesmen, our bankers, did not care.

“Even as late as 1916, Hossenfelder, the German consul general in New York, in a letter to von Bethman-Holl-



WHISKERS—The bristling guns on this new Boeing B-17 chin turret remind you of the whiskers on a cat. Official U. S. Army Air Forces photograph.