

Many Called, Few Chosen

➤ RUBBER plants by the score are being recommended every day to authorities in Washington, by citizens anxious to do something to solve the present serious shortage. Moreover, most of them actually contain rubber; there are very few miscues and false leads among them.

People generally have got the idea that any plant with a milky juice, or latex, is a rubber possibility. In general, that is correct. And there are many plant species native to this country, as well as many well-established exotics, that yield latex when cut.

Most frequently suggested among

plants, perhaps, is poinsettia. This is natural: almost every household has had a Christmas poinsettia at one time or other, so that its readiness to purl forth latex from the slightest wound, even at the breaking off of a leaf, has been practically universally observed. It grows luxuriantly outdoors, too, in the warmer parts of the country, as along the Gulf Coast and in Southern California.

Names of possible native rubber plants are legion. Milkweed probably tops the list, along with its botanical second cousin, Indian hemp or dogbane. Then there are the various spurges, including the attractive ornamental plant known as snow-on-the-mountain, as well as leafy spurge, which is a terrible weed in northwestern range country. Both plants are poisonous, and it would be a fine thing if an economic use could be found, to encourage their elimination from pasture lands. Other native latex-yielders include wild lettuce, several lobelia species, and even the troublesome wild morning-glory.

With all this wealth of milky-juiced plants, why aren't we using them?

Answers are several, but they all boil down eventually to one: It wouldn't pay. Rubber content in all these latexes is low, and mixed in with most of them are quantities of undesirable resins that would make the resultant rubber too "tacky" for most uses. So it appears better to spend our rubber-emergency

money, labor, and critical metals and chemicals on the most promising plants, such as the well-tried tropical rubber trees, guayule, kok-sagyz, Edison's gold-enrod and perhaps one or two others. There is no harm in knowing, however, the U. S. Department of Agriculture scientists patiently analyzed all suggested plants, no matter how unpromising, before they passed them over.

Science News Letter, October 31, 1942

PHARMACY

Chemical Society President Asks for Quinine Hoards

➤ QUININE, now worth several times its weight in gold to American forces fighting in malaria-ridden tropics, is lying idle in little hoards at universities and other institutions all over the country, Dr. Harry N. Holmes, president of the American Chemical Society, is convinced. He has issued an appeal to all laboratory heads having unused stocks of the invaluable drug to turn them in, as an aid to their country at war.

In addition to its unique use in combating malaria, quinine is used by organic chemists in preparing certain compounds of technical interest but no medicinal value. On a search for quinine kept for this purpose, Dr. Holmes asked his fellow chemists, during a recent lecture tour, to look at their stock shelves and see what they had on hand. He found a pound at Yale, at the University of Vermont half a pound and in Boston a pound or more.

He has therefore issued a general appeal to chemists who have quinine to write him, so that he can forward their letters to the proper medical authorities. He does not want to have the quinine sent to him directly, but only information as to its whereabouts, and the willingness of present owners to sell at current prices.

Dr. Holmes' address is Oberlin College, Oberlin, Ohio.

Science News Letter, October 31, 1942

GENERAL SCIENCE

Five Science Libraries En Route to War Prisoners

➤ FIVE LIBRARIES each totaling over 125 scientific books and pamphlets were placed aboard the exchange ship *Grips-holm* and should soon be in the hands of the United Nations prisoners of war held by the Japanese in the Far East.

Collected by the War Prisoners' Aid Service of the Y.M.C.A. and dis-

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patched in cooperation with the International Red Cross, these books on medicine, biology, engineering, technology, agriculture and the humanities are expected to be of practical aid to the men of science among the prisoners, as well as allow many of them to continue studies that were interrupted by the war.

The book service to scientists among prisoners of war in all countries is being undertaken as a part of the extensive book service to war prisoners conducted by the World's Committee of the Y.M.C.A. in cooperation with the International Red Cross, the European Stu-

dent Relief Fund and the International Bureau of Education. Miss Mary Churchill Humphrey of Kentucky helped begin this work when living in Paris at the time of the fall of France and she is now continuing it in this country, as a volunteer with the Y.M.C.A.

Two of the box libraries dispatched to the Far East are intended for Americans, two for British and one for Dutch in Java.

Many of the books were donated by leading libraries and publishers for this purpose.

Science News Letter, October 31, 1942

ENGINEERING

Bad Smells Remedied

Pungent odors emitted by bus motors may be reduced if recommendations of engineers are followed. Due to bad combustion when engine is used as brake.

► **DISCOVERY** of causes and cures for the pungent odors sometimes emitted by bus motors, disagreeable to both passengers and pedestrians, was announced by J. J. Mikita, Harry Levin and H. R. Kichline, three engineers of the Texas Company, Beacon, N. Y., at the meeting of the Society of Automotive Engineers in Tulsa, Okla.

The odors are due to imperfect combustion resulting in the formation of formaldehyde—the disinfectant responsible for “hospital smell”—and other aldehydes. These in sufficient concentration are intensely irritating to the eyes, nose and bronchial tubes. After using their noses for a while in testing exhaust gases, the experimenters found that the amount of aldehydes present in the gas, as determined by chemical analysis, was an even more accurate test of smell and would spare their noses.

The odors can be produced by too lean a mixture of fuel and air, but the investigators found that buses in general use a mixture rich enough to avoid trouble from this cause.

Nevertheless, odors are emitted when the bus is slowing down and the engine is being used as a brake. In this case, the products of combustion left in the cylinders from previous explosions greatly dilute the small incoming charge admitted by the nearly closed throttle. Poor combustion and odors result. They found also that if the idling mixture is too rich, does not bring in enough fresh air at each charge, the odors are

increased. This cause is sometimes aggravated by liquid fuel that becomes trapped in the manifold during ordinary running. This fuel re-evaporates when the throttle is shut down and enriches the idling mixture.

No simple adjustment of the engine nor a change of fuel will completely eliminate exhaust odors when the engine is decelerating, the experimenters found. In a bad case, a gasoline of higher volatility will help some but will lower the economy. A better remedy is to clean the manifold of all deposits that may trap liquid fuel. Another remedy is to raise the temperature of the manifold and of the fuel at intake. Finally the experimenters suggested the provision of a mechanical device which would cut off the fuel or the ignition when the bus is slowing down under compression.

Science News Letter, October 31, 1942

PUBLIC HEALTH

Things That Tend to Make Hearing Aids Expensive

► **MANY** a hard of hearing person goes without a hearing aid because he feels he cannot afford one.

The things that make a hearing aid expensive are given by Miss Josephine B. Timberlake, of the Volta Bureau, in a report on hearing aid clinics published in *Hearing News*, official organ of the American Society for the Hard of Hearing. Here they are:

The salesman's task of helping the

client find an instrument that meets his needs; the often difficult job of persuading the hard of hearing person that he should buy and wear an instrument; teaching him to use and care for it.

“Hearing aids will cost less just as soon as the customer is ready to buy an instrument instead of having to be sold one,” dealer after dealer has told Miss Timberlake.

Obviously, the hard of hearing can help themselves and each other with this problem.


Help could also be given by hearing aid clinics if they followed the pattern of those established in English hospitals as long ago as 1938. At these hospitals of hearing not only got ear examinations, necessary treatment and audiometer tests but consultation with the head of the clinic who recommended a suitable instrument, a trial of the instrument at the clinic and for at least one week at home, and the opportunity to buy the instrument through the clinic at a discount which about halved its price on the public market.

The reason hearing aid manufacturers can give such big discounts to hospitals and clinics is partly because they are spared the appalling amount of time needed to sell instruments to individual patients (the clinic does it for them) and partly because the makers can get suggestions from the clinic as to ways in which their instruments can be improved.

Apparently there are only 12 hearing aid clinics in the United States, and only three of them in hospitals.

Science News Letter, October 31, 1942

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