Radiator Hose Department Aids In War Effort

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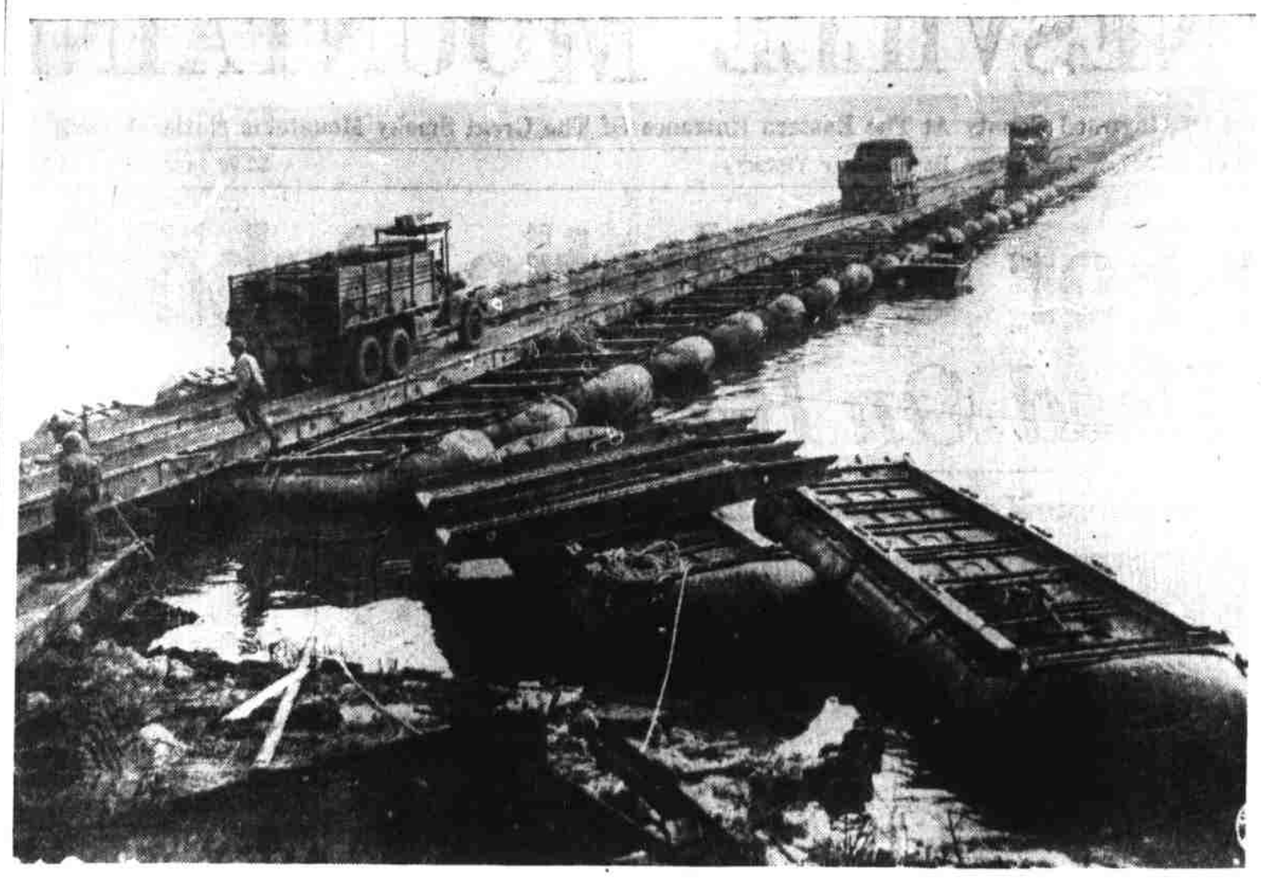
plant, without undue difficulty.

Now that every scrap of rubber is precious, and the demands for rubber used in equipment for the Armed Forces are mounting, it has become necessary to seek other qualities of reclaimed material for the manufacture of radiator hose. Today it is recognized and accepted by private and industrial motor operators as a valuable contribution to the war effort on the Home Front. Thousands of civilian cars and buses take thousands of war workers to their jobs daily. Fleets of trucks transport tons of war equipment to and from plants dedicated to the war effort, and these vehicles must be supplied with radiator hose in order to operate.

In spite of the mounting difficulty of finding materials for its manufacture, the Radiator Hose Department at Dayton Rubber has continued to function full time since it was established two years ago. The men responsible for its survival and the operators in the department are to be congratulated for their tireless efforts and their refusal to be discouraged by gigantic handicaps. They are carrying on with the full conviction that every contribution is a milestone toward Victory.

Work in the millroom of a rubber factory is typical of the millions of unromantic, behind the scenes, jobs that are being carried out by so many American workers today. The mixing mill operators, compounders, truckers, extruding machine operators and calender men do not see the romance of complete and final production. They do not see the huge 33 foot pontons packed in their water proof carrying cases ready for overseas shipment, or the finished V-Belts dressed in their attractive wrappers, or the oxygen breathing tube, complete with fittings, just like it will be worn by a gallant fighter high in the blue over enemy territory. It is hard for the millroom employee to visualize the massive floting river bridges, or a drifting life raft that has snatched an unfortunate pilot from the doom of a watery grave, as he listens to the constant grind of the mill line and handles the hot masses of shapeless rubber from day to day. In his own heart he knows that these products of war would never reach the battle areas without first having passed through his hands. As surely as he knows these facts, let us too understand his position and give him a pat on the back for his all too often thankless task in the battle on the production front.

Dayton Rubber Pontons Aided Rhine Crossing



Crossing a wide river like the Rhine in Germany is no difficult problem for U. S. Army Engineers. With the aid of pontons, such as built by Dayton Rubber, vehicles can be rolling across in a very few hours. (Official Signal Corps Photo).

Fighters Move To Front On Dayton-Made Pontons

As our fighters follow on the heels of the retreating enemy they must get across the rivers fast. Quickest method is by ponton bridge. And it's the Army Engineers' job to build those bridges.

The Engineers bring pontons, steel saddles and treadways on large truck-like equipment carriers to the river bank. Pontons are brought out of their heavy canvas coverings and valves are opened to permit a mobile air compressor to fill the ponton with air. Pontons are protected by bullhead sections to help keep the big tube afloat even though some sections have been bullet-pierced. Five minutes after inflation starts the ponton is ready to float. Then the completed bridge sections are lined up and overlapping treadways bolted together and a hydraulic crane unloads the steel "saddles" onto the floating pontons. The steel helps give the bridge rigidity and protects the rubber ponton underneath from enemy machine gun bullets. It takes about three hours to build a 42-ponton bridge over a 350-foot river.

Pontons are really two long 33-foot rubber tubes 33 inches in diameter and shaped with two curving, connecting ends which tip up like a canoe. Pontons carry a weight of 18 tons. In the center of the ponton lies a log—aptly named. It's a 27-foot rubber cylinder 33 inches around with a ball on each end.

Pontons made by war workers at Dayton Rubber have appeared on every battlefront according to frontline reports. Their production and shipment to our fighting men has helped save the lives of many troops and many tons of equipment.

Head Of Dayton Rubber Pioneered Synthetic Rubber

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role in the evaluation and development of Neoprene, Butyl, Perbunan and other synthetic rubbers which today have many varied uses.

Two weeks after Pearl Harbor, Mr. Freedlander was appointed to the WPB, where he served as technical chief of the Rubber Section, Industrial Specialist and Technical Consultant.

Also serving as chairman and consultant to the Textile Branch of WPB, Synthetic Textiles Division, Mr. Freedlander has helped to solve many important textile problems during the present war.

Mr. Freedlander is also president of the Copolymer Corp., of Baton Rouge, Louisiana. Copolymer is a government-owned synthetic rubber producing plant operated jointly by Dayton Rubber and six other companies.

After a trip to Europe in 1939, Mr. Freedlander predicted the war and began planning the company's future in view of a possible curtailment of natural rubber. In his plans was the construction of a plant designed especially for the production of synthetic rubber products. The plant is now located in Waynesville and is playing an important role in supplying armed forces with needed supplies.

Myths And Mysteries Of Synthetic Rubber

Just what is this Synthetic Rubber?

As the term is used, Synthetic Rubber is really a misnomer because no successful synthetics exactly duplicate the chemical structure of natural rubber, but merely duplicate as nearly as possible its characteristics. Therefore "Substitute Rubber," "Elastomer" or some such term would more nearly describe the material the government and rubber companies call Synthetic Rubber.

The varieties and characteristics of the many Synthetic Rubbers are almost endless. Research Laboratories have discovered at least three thousand synthetic rubbers of widely varying properties. Some have more stretch and more tensile strength than others and are suitable for tires and other items receiving hard usage. Others have little stretch and little strength and consequently are suitable only for such articles as glass jar rings, raincoats, baby pants, shoe soles, gaskets, etc. Some synthetics have qualities which far surpass those of natural rubber, while others are inferior but still satisfactory for many uses. For instance, tires made of high quality synthetic will far outrun those of natural rubber, and printing rollers made of synthetic are not affected by oil, benzine, and abrasion.

It would seem logical that all synthetics should have a common base with various methods of compounding being the only difference in texture. However, such is not the case. Basic constituents range from soy beans and morning glories to petroleum and alcohol.

Mysteries abound in both synthetic and natural rubber. If you are scientifically inclined and like to delve into the bewildering processes and ingredients of rubber, then consider the following oddities:

It takes a torrid climate to grow rubber trees, yet heat is destructive to your automobile tires! The sun that aids the growth of the rubber tree will also rot a rubber glove! Soap and water do not penetrate rubber, yet rubber is reprocessed by them! A rubber tree needs plenty of air to survive but cured rubber is deteriorated by air.

License Fees

Municipal license fees charged for cigarette vending machines, juke boxes and mechanical amusement devices vary widely on the basis of a survey of ordinances of 38 cities. License fees charged by cities for operating of cigarette vending machines range all the way from $2 a year in Atlantic City and Pasadena, and $3 a year in Wichita, Kan., and Wilmington, Del., to sliding rates calling for much higher fees in Los Angeles and Birmingham.