FOUR WAYS TO MAKE A TIRE.

1. Take 1.7 bushels (102 pounds) of grain and convert it into 4.2 gallons of alcohol. This will make 9.6 pounds of butadiene. This butadiene when mixed with 2.4 pounds of styrene will produce 12 pounds of Buna rubber — enough for one medium sized tire.

2. 3.6 gallons of butane derived from natural gasoline will produce 2.7 gallons of butylene which in turn can be converted into 9.6 pounds of butadiene. Mixed with 2.4 pounds of styrene as above will give 12 pounds of Buna rubber.

3. 2.7 gallons of butylene derived from the oil cracking process will yield 9.6 pounds of butadiene to be mixed with 2.4 pounds of styrene which will produce 12 pounds of Buna rubber.

4. 1.1 pounds of coal can be converted into 31 pounds of coke. This coke when mixed with 80 pounds of limestone will produce 16.3 pounds of acetylene. This in turn produces 9.6 pounds of butadiene which can be mixed with 2.4 pounds of styrene to produce 12 pounds of Buna rubber.

NATIONAL INVENTORS COUNCIL.

One of the busiest agencies in the nation’s capital today is the National Inventors Council. This is an agency in the Department of Commerce which makes a preliminary investigation of ideas, and inventions which may prove useful to the war effort and then make suggestions to the War and Navy Departments as to the feasibility and practicability of such ideas, inventions and devices. War stimulates invention and a vast number of ideas and suggestions clear through the Council almost daily. It is equipped with a technical and engineering staff. Among recent ideas which have been developed is a small arms bullet with a smoke-making substance for daytime use and an incendiary substance for night use. This makes it possible to observe the effect and the hits that are scored. Another is a squeeze-down bullet which produces a higher muzzle velocity than present types. The rubber shortage has inspired many inventors to find substitutes or to produce a new type of wheel for vehicles which is not dependent on rubber.

SUPPLEMENTAL GASOLINE FORM

The form on which application must be made for an extra supply of gasoline over and above that which is permitted on the regular ration book is quite a formidable document. Among other things, it calls for place where your car is garaged, whether you secured supplementary gasoline before, whether gasoline is from the owner’s own storage tank, the applicant’s principal occupation, the purpose for which the car is used, number of other persons to be carried to work, driving distance between home and place of work, car mileage during the last 30 days, average mileage required for a 90 day period, whether other means of transportation are available, what kind, the distance to such transportation, what efforts have been made to ride with some other car owner, the names and addresses and other data concerning persons with whom a ride is shared, a list of any other cars owned and operated by the applicant or other members of his family, and a host of other information.
AVAST! YE STEAMSHIP LUBBERS.

Long ago, that romantic type of sailing vessel known as the wind-jammer was the pride of the seas. Long before the application of steam to the business of driving vessels across the deep-waters of the seven seas, the bellied sails of the wind-jammers were known in every port of the world. The name "wind-jammer" is derived from the fact that sailors on steam-driven vessels referred contemptuously to the sailing vessels which continued to ply the sea lanes after the discovery of steam power as windjammers. But wind-power was no match for steam in speed certainly and so the wind-jammer like the hoop skirt and tight breeches gradually disappeared. And now what? Believe it or not but the RFC at the instance of the War Production Board is advancing 10 million dollars to build 100 wooden sailing vessels for the inter-American cargo trade. War so strangely turns back the clock.

WAR AND STATE TAXES.

The state of West Virginia is in the area in which gasoline is now being rationed. Reduced supplies of gasoline means reduced state revenues from gasoline. Rationed motorcars means reduced revenues from automobile license fees. Rationed tires has the same effect. Since the state has a highway system built by the issuance of state bonds which were to be retired and on which interest was to be paid out of gas taxes and license fees, the problem of reduced revenues becomes ominous. The state Highway Department therefore conducted an experiment by means of interviews with 6000 motorists and by the mathematical calculation to determine what the revenue losses might be for a year. Estimated gasoline taxes for 1941 were about 11 million dollars. It is estimated that for 1942 it will be 8 million or a loss of 3 million. Losses on license fees are estimated at 2 million. Losses on the privilege tax on automobile titles is estimated at one-half million, making a total of 5½ million for single year. This is a drop from 19 million in 1941 to 13½ million in 1942 or about 30%. The state has outstanding about 76 million in highway bonds. Rationing therefore wipes out an amount equivalent to all of the interest which must be paid plus an additional 2½ million that could be applied to bond-retirement. Interest must be paid. Bonds must be paid when due. This state must therefore find new sources of revenue. In similar fashion 44 states in the union would be affected.