

STOP ABUSING YOUR TIRES!

How More than One Hundred Million Dollars Can be Saved by Car Owners and Drivers in the Coming Year.

By H. S. Firestone
President Firestone Tire & Rubber Co.



You immediately investigate a knock in your engine or the slightest noise in your car mechanism anywhere. Because tires give no alarm until they blow out or go flat, many motorists fail to give them even a casual examination. It is a good plan to look them over carefully every day. You forestall a big loss by having the first sign of trouble attended to. You keep your tires efficient and by saving from waste you keep your money efficient.

SIXTH ARTICLE Ineffective Repair

Attention should be given to punctures, cuts, snags and other injuries, even though they may appear to be trivial. Small injuries of seeming unimportance often grow into serious consequences. It is advisable to have the repairs made by an experienced workman. As a usual thing, the amateur does not reinforce the injury, when needed, and is apt to vulcanize the rubber too thick, not only making it hard and brittle but burns the materials around the repair.

Pieces of fabric of different sizes placed inside of the tire, regardless of the weave of threads, will wrinkle, separate and not afford any appreciable strength of reinforcement.

All fabrics, for every style of repair should be cut on a bias in the same manner that the fabric is cut for the original construction of tires. Repairs that are hard and bulge are generally a result of cutting the fabric straight with the roll, i. e., lengthwise and with the warp.



Showing the honey-combed appearance of an inner tube which was burned by soapstone collecting at one place.

Soapstone is the lubricant most used for tires and it is quite satisfactory, but not lasting; therefore a fresh supply should be put into the tires at least two or three times during the season. Powdered mica has proven a more durable lubricant than soapstone and quite as effective as graphite, as well as more pleasant to handle.

Pinching of an inner tube usually occurs from oversight or carelessness in application of tire to rim.



Illustration shows how the tube may be caught underneath bead of case. This may occur from putting too much air in the tube before application or from not using care to keep tube away from rim until beads of case have been properly engaged in channels of rim. This may also occur from using a tube of wrong size. For example, a 4 1/2 inch tube in a 4 inch case. If flap works out of position when the tire is being applied to rim, tube may be injured by flap or bonds of case. When a tire is inserted soft, there is a tendency for the beads to lift up at the toes due to the internal pressure and weight of car and sometimes permit tube to work under bead. This is aggravated when the tire has been constantly ridden soft and beads have been cut and broken by rim.

Repair of Cord Tires.

The same method of tearing down and building up fabric cases can be used in the repair of most cord tires. The cord can be obtained from the manufacturer just as the regular fabric is obtained and is applied in the same way. It is possible to buy up sectional repairs with regular fabric, but the repaired section will be stiffer and less elastic than other parts of the tire, and there is some danger of the repair bumping and loosening in service. It is not recommended.

The new cord layers should be applied so that the cords will run parallel with the cords of the layer removed, putting the new material up tightly against the old material. It is then advisable to apply a thin, narrow strip of cushion gum over the joints. The same breaker strip fabric and chafing strip fabric is used as in the repair of fabric cases. No special equipment is necessary for the vulcanizing of cord cases.

Care and Usage of Inner Tubes.

If the tire users understand the construction of inner tubes, and things which contribute to their wearing out, it would be easy indeed, to secure more and better service. Spare tubes should not be carried in cardboard boxes as furnished from the dealers' shelves—there is danger of the tubes being chafed. Tube bags can be secured for this purpose.

If the car is equipped with smaller tires on the front wheels than on the rear wheels, an extra tube should be secured for each size.

The cross sections of inner tubes are made a little smaller than the normal air space inside of the cases. It is not advisable to use a 4 1/2 inch tube in a 4 inch case. This usually wrinkles and creases the rubber with bad results. Do not use a 4 inch tube in a 4 1/2 inch case for any length of time. When this is done the rubber is required to stretch too much and the effect of heat and action due to displacement of air in the tire quickly uses up the life of the tube.

Lubrication is most important to conservation of the tube, but it is a matter that is given least attention. Practically all tire manufacturers treat the inside of cases with a white solution to prevent tubes from sticking to the adhesive "friction" of the fabric—a good lubricant, however, should be used.

Some customers neglect dusting soapstone inside of the case when changing a tube—others use the soapstone so sparingly that it does but little, if any good, or they may use so much that it does more harm than good. If a quantity of it is dumped into the case it will collect at one point, and during the hot weather will heat up to such an extent

as to burn the rubber of the tube, making it very thin, brittle and lifeless. This can be recognized by the honey-combed appearance.

Don't crowd a tire of wrong size on a rim simply because you are able to do so, by physical force. It is not economy—aside from the injury to the beads, much annoyance can be expected as the result of tubes being pinched.

Deterioration—Storage. Deterioration, contrary to the general impression, is not necessarily a result of age but is largely influenced by the conditions under which tires are held in stock.

Tires should not be kept in a warm place for any great length of time, as light and heat will cause the sulphur to come to the surface and make the rubber minutely porous. A dark, dry room at a temperature of from 40 to 50 degrees is most favorable for retarding chemical action.

When the car is laid up for the winter, or for other reasons is not used for several weeks, the stale air should be removed from the tires. Partially inflate with fresh air—enough to round up the tires and cover them with muslin or other material to protect from the light. The weight of the car should be supported by blocks or racks, so that there will not be any weight on the tires.

Some Questions Answered.

In the first place it should be remembered that a large number of these people are helpless refugees wholly outside of the Turkish dominions. In the Russian Caucasus alone there are 350,000 refugees who have fled from Turkey to the protection of Russian soil. They have now been more than two years exiled from their homes in a strange land and under a demoralized government that cannot give them support. A quarter of a million of this number are now in dire distress. Over 100,000 of them are orphans whose parents perished in the so-called deportations. Large numbers of refugees are likewise found on the Urumia Plain of western Persia and throughout Mesopotamia as far south as Baghdad and the site of old Babylon. These refugees are now under Russian and British flags and every facility is granted to our committee to sustain them until they can be restored to their homes on a self-supporting basis. To care adequately for these refugees alone would more than exhaust all the committee's available resources.

But the committee is pleased to report that within the Turkish dominions its commissioners are able to administer relief effectively without interference from many government and is moreover able to guarantee that every dollar given for relief goes for relief without the diversion of one cent for any other purpose. The money remains in the hands of reliable American administrators from the time it leaves New York until it is transformed into food or clothes which missionaries and other relief administrators personally give to the destitute. There are more than one hundred missionaries, physicians, teachers, former consular agents and various sections of the Turkish Empire today remaining heroically at their posts for the sole purpose of administering relief and saving these people from starvation. We have at times sorely tried their faith in American Christianity by leaving them empty-handed in the face of a most appalling need with people dying of starvation before their eyes. They willingly risked their lives. A score of them have died from contagious diseases contracted in the service. Dare we withhold the funds with which to make their ministry effective?

Identically the same machinery for distribution which Ambassador Elkus and Ambassador Morgenthau organized with the same personnel of distributors, is still operating effectively with the full knowledge and approval of all governments concerned.

American consuls teachers and other eyewitnesses recently returned to America bear authoritative witness to the fact that relief is being effectively administered and that thousands of lives

are today absolutely dependent upon its continuance.

What is the Relation of this Work to the American Red Cross?

The closest and most helpful relations possible have from the first been sustained between the American Red Cross and the American Committee for Armenian and Syrian Relief. The treasurer of the Armenian and Syrian Relief Committee was chairman of the committee that brought about the organization of the Great Red Cross War Council. The officers of the two organizations are in constant consultation, having but one dominant aim—the largest possible relief for the sufferings of mankind.

The American Committee for Armenian and Syrian Relief cooperated in every possible way in the Red Cross campaign for \$100,000,000 last May and the War Council of the American Red in turn has given its endorsement to the Armenian and Syrian Relief Committee by appropriating \$300,000 per month for a period of six months to the Armenian and Syrian Relief Committee for relief work in Western Asia.

In doing this, however, they recognize that "substantial and important as this appropriation is it is WHOLLY INADEQUATE to meet the full need, and that to provide for the entire number of people dependent upon you for any other purpose, would practically exhaust the entire fund of the American Red Cross which, of course, is contributed largely for the relief and comfort of our own soldiers and sailors and those of our allies. We understand that your Committee will continue to press its appeal for funds with which to meet more nearly the task that is before you.

The American Committee for Armenian and Syrian Relief deeply appreciates the sympathy and co-operation of the Red Cross. It is to be remembered that a large part of the Red Cross funds are contributed primarily from patriotic motives by people who expect their contributions to be used largely in the interests of "our boys" and the soldiers of our allies. Our Committee recognizes that the major part of the Red Cross funds must be thus used, and with deep appreciation of the substantial appropriations being made by the Red Cross we appeal for further contributions from those who in addition to their patriotic gifts to the Red Cross and other organizations are willing to make additional sacrifices for those on the verge of starvation in Western Asia.

How Are the Apportionments Made? The amount of money needed for the next six months in Western Asia has been apportioned on a purely mathematical per capita basis to more than 23,000 cities, towns and villages in the

Hints for the Motorist

By Albert L. Clough
Editor Motor Service,
Review of Reviews

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A Cold Weather Warning.

WITH THE ONCOMING of cold weather a warning against the danger of frozen radiators, pumps and water-jackets again becomes timely. The damage and attendant repair expense consequent upon the freezing and bursting of these frail and costly parts, while it is well known, is too often not provided against in time and careless motorists are put to much unnecessary outlay which a little forethought and precaution would entirely have avoided. Very severe early "cold snaps" often come with the utmost suddenness and heedless car owners are often caught napping. As soon as freezing nights become the rule the safest course is completely to drain the cooling system of water and to fill it with an effective anti-freeze solution. Whenever the temperature drops to the danger point it behooves every motorist to take thought of his car and to consider whether it is adequately protected against damage, and in this connection "delays are dangerous." Everyone desires to put off the adoption of a non-freezing solution on account of its expense and bother and one may "take a chance" and delay it until settled winter weather prevails, if one's garage is well built and tight and if the car is used rather frequently and its hood is well covered at night, especially while the water is warm, with heavy blankets or with one of the regular padded hood covers. Drawing off the water whenever the car is to be left in a freezing temperature is a safe practice only if the system is completely drained, and involves an amount of labor which is seldom warranted, although it makes practicable the filling of the system with hot water when the car is to be taken out and thus facilitates starting of the engine. A good sized incandescent lamp left burning under the hood will help until very cold outside temperatures prevail, if the hood is kept heavily covered. Even though a car is housed in a garage, provided with artificial heat, it sometimes happens that the freezing danger is present through delay in starting the winter free and it is advisable that in all garages a reliable thermometer be hung rather close to the car and, when its indications approach the danger point (which will usually be in the morning), anti-freeze solution should be substituted for water in the cooling system, even though the radiator is kept covered.



CAPACITY OF ELLIPTICAL TANK

J. E. Mott writes: I have rebuilt a touring car into a roadster and am planning to put on a fuel tank of elliptical shape, measuring as follows: Length 26 inches; longer diameter, 18 inches; and its shorter diameter, 12 inches. How can I determine how many gallons of gasoline it will hold?



CLUTCH DRAGS FROM THICK OIL

R. F. S. sends us the following: Sometimes, when I start the engine of my Ford, on a cold morning, the car runs slowly forward, even though the lever is in neutral. Why is this and how can it be prevented?

United States. It is natural that the apportionment to the individual cities should seem "altogether too large," "wide of the mark," "impossible."

REMITTANCES TO CENTRAL RELIEF COMMITTEES

(From Oct. 1, 1915, to Oct. 22, 1917)	
Constantinople and Asia Minor	\$1,903,822.91
Bagdad and Mesopotamia	49,000.00
Tiflis and Russian Caucasus	1,288,395.16
Tabriz, Teheran, Urumia, and Persia	962,110.00
Beirut and Syria	665,562.38
Alexandria and Egypt	19,474.00
Jerusalem and Palestine	40,000.00
Total	\$4,919,364.45

WHO ARE THESE

(Continued from page nine)

100,000 have joined Protestant denominations as a result of the work of American missionaries, and the remainder were the adherents of the Apostolic Christian Church of Armenia. Today this church has 100 bishops and archbishops, about 10,000 ecclesiastics of lower rank and 2,969 parishes.

Following her conversion to Christianity, Armenia was in a continual death struggle with Zoroastrian Persia and the ever surging hordes of barbarians from the wilds of Asia. Armenia was the highway upon which crossed and recrossed the alien enemies of civilization—the Moslem Arab, Mongol, Tartar and Turk. The Armenians, isolated and separated from the rest of civilization, represented the West in the East and fought its first battles. Finally exhausted by the swarming tide of the pagan and Moslem forces, they retreated westerly and in 1080 set up the kingdom of Lesser Armenia, along the coast of the Mediterranean. Here they became the active allies of the crusaders. But with the collapse of that unfortunate movement they fell a prey to the wrath and vengeance of the Mamouk Sultan of Egypt. King Leon VI, after eight months' defense of Sis, his capital, laid down his arms in May, 1375, and thus

ended the independence of Armenia. Armenia was eventually divided between Turkey, Russia and Persia. Of the estimated 4,500,000 Armenians (in 1913), 2,300,000 lived in Turkey about 1,500,000 in Russian Armenia, and the remainder were scattered over the world.

In Turkey, despite the oppression and obstructive rule, the Armenians have been one of the principal constructive forces and have, together with the Greeks and the Syrians, enabled the Turks to satisfy his manifold wants. The Turkish printing press, the Turkish grammar and the Turkish theater owe their origin to the initiative of the Armenians.

General Sherif Pasha, the former Turkish ambassador at Stockholm, made the following statement as recently as October, 1915: "If there is a race which has been closely connected with the Turk by its fidelity, by its services to the country, by the statesmen and functionaries of talent it has furnished, by the intelligence which it has manifested in all domains—commerce, industry, science, and art—it is certainly the Armenian."

The Syrians. Syria is a narrow strip of land extending from the Taurus Mountains in the north to the Sinaiic Peninsula in the south. The Mediterranean sea on the west and the desert on the east. It occupies a strategic position in the map of the old world, being a connecting link, a bridge, as it were, between Europe, Asia and Africa.

Syria is the birthplace of two Monotheistic religions—Judaism and Christianity, and is closely related to the birth and development of a third, Mohammedanism.

The country has five provinces: Aleppo, one of whose cities is Antioch; Damascus, whose capital by the same name is reputed to be the oldest city in the world; the Lebanon, famous for its cedar trees; Beirut, whose capital by the same name is the sea port of Syria; and Jerusalem.

The Syrians are not Assyrians. The latter term is sometimes abbreviated into Syriacs; but the Assyrians are Nestorians living in Mesopotamia, Kurdistan and northwestern Persia. They are in no way related to the modern Syrians on the eastern shore of the Mediterranean Sea.

Neither are the Syrians Arabs. The confusion on this matter has arisen because they speak Arabic, but their adoption of the Arabic tongue is a comparatively recent event in their history, subsequent to the invasion of the country by the Arabs in the seventh century. Most of the Syrian Moslems are of Arabian stock and number about two millions. The Christians, numbering more than one million, have suffered most in the terrible events of the past two years.

Who, then, are the Syrians? They are a mixed Semitic race, the remnant of the Phoenicians who were the first to discover the laws of navigation and who disseminated the alphabet. They are the descendants of the Aramaeans who transmitted Greek culture and philosophy to the Orient, and whose language Christ used as a mother tongue. Some Syrians rightly trace

their origin to the Arabs, who in the middle ages were the only bearers of the torch of civilization; and others to the European crusaders, many of whom settled in the country after the eclipse of their kingdom.

Aside from their religious contribution to the civilization of the world, the Syrians have other things to their credit. More than one of them succeeded in capturing the Roman crown and installing himself in the imperial chair of the Caesars. Two of the main contributors to the Justinian Code of Laws were professors at Beirut. The founders of Neo-Platonism were from Palestine. One of the tutors of Tiberius Caesar was a Syrian. The great engineer who planned Trajan's palace and the bridge over which he crossed the Danube was from Damascus. A Syrian, by discovering "Greek Fire," saved Constantinople to the Christian world. Eusebius, the "father of ecclesiastical history" was a Syrian, and so was Justin the Martyr.

The Greeks in Turkey are confined mostly to the shores of Asia Minor and the adjacent islands. They are direct descendants of the Greeks who held sway in Constantinople until its capture by the Mohammedans in 1453. They number in Turkey about five millions, speak Greek and profess Orthodox Christianity. The Greek element is one of the most progressive elements in Turkey and controls the finances of the empire. They have suffered the loss of all things through deportation and are counted among the needy ones of Turkey.

The Assyrians. The Assyrian Christians inhabit a portion of the territory known to ancient history as Assyria, including a part of Mesopotamia, Kurdistan and northwestern Persia. They are also sometimes designated as Nestorians. Syria is their mother tongue. Some of them are under Turkish rule; others under Persia rule. They number about 140,000 persons. It was Nestorian or Assyrian missionaries who carried the gospel of Christ to Arabia, India and China. The Occident is indebted to this church for preserving the divine message and transmitting it to the modern world.

The Jews. The historical status of the Jews and their contributions to civilization are well known. A great many of the inhabitants of Palestine in Syria are Jewish and depend upon American aid, for they have suffered quite as severely during the present war as the other peoples of Western Asia. In the United States, there are several organizations formed by Jews for the relief of their race. Representatives of the Armenian-Syrian Committee, of course, render such help as they can.

"The narrow silhouette will predominate during the coming season, and yet skirts, whether separate or to go with suits, have a tendency of fullness about and just below the hips which frequently effects the narrow ankle line by illusion." Such is fashion's dictum, and though we are too much of a man to know just what it means, we're strong for the narrow ankle line stuff.

STORY OF CNE

(Continued from page nine)

themselves, and so Armenians were starving. In Armenia, in Russia and in other places Christians are starving, while millions of Christians all over the world have plenty. I plead with you for help for my people.

ACCOUNTS CAREFULLY AUDITED.

The American Committee for Armenian and Syrian Relief employs expert accountants to audit its books regularly. The financial methods of the Committee have been approved by these auditors and by a special committee of the Executive Committee who presented the following report:

To the American Committee for Armenian and Syrian Relief:

By your authority we have caused the books and vouchers of the Committee to be examined by Messrs. Harrow, Wade and Guthrie & Co., chartered accountants of New York, Chicago, Philadelphia, San Francisco, Boston and London.

They have submitted an extended report which shows a most satisfactory condition and an exceptional record. Every dollar received by the Treasurer has been forwarded for the relief of the people for whom it was given.

The report further shows that the

committee has sent for relief \$3,162,235 more than has been received in contributions, this amount representing interest received on daily balances held against outstanding drafts from the field.

Attached is a brief abstract of the Auditor's report:

Your Committee has now arranged for a continuous audit of our accounts by Hurdman and Cranston, chartered accountants, who will make a formal report to us every six months or more frequently if requested. No part of the general relief contributions are being used for expenses.

(Signed)
CLEVELAND H. DODGE,
HENRY MORGENTHAU,
EDWIN M. BULKLEY.

Auditing Committee.

"This report was rendered while Mr. Charles R. Crane was Treasurer. Mr. Dodge now acts in that capacity, and has asked to have another succeed him on the auditing committee."

Urey McWowell says that whenever the average girl gets the notion that she is going to make Mary Pickford look like a scarecrow, the American kitchen weeps; and when the average boy thinks he is going to make Charlie Chaplin look like a scarecrow, the American kitchen wry smiles hang out the "help wanted" sign.

Questions of general interest to motorists will be answered in this column, space permitting. Address Albert L. Clough, care of this office.

MAXWELL

Most Miles per Gallon - Most Miles on tires

Economize Wisely

-A Maxwell Car Will Help

Waste is often committed when the intention is to economize. A Maxwell car, famous for its economy, will cost you only a few dollars a month to operate and maintain.

Which is the real economy:

- (1) To use the car and save time, strength, and mental vigor?
- (2) To do without the car, lose time in your business, lose the health gained from motoring, and worry yourself into illness?

Use of a Maxwell car will give you self confidence. Your neighbors and associates will get mental inspiration from you. As wave circles widen when a pebble hits the water, so will your good example benefit your entire community.

Save—yes; but do it sensibly, and let the Maxwell help.

Touring Car \$745; Roadster \$745; Berline \$1095
Sedan with wire wheels \$1195. F. O. B. Detroit

Halversen & Burns