The AUTOMOBILE

GET FULL MILEAGE FROM YOUR TIRES.

One does not have to be an expert mechanic to take care of his tire equipment. If any major injuries develop pass the job of repairing them on to the man who makes that work his business. If you make certain that the inflation is according to the schedule set down by the manufacturer, you will be insuring yourself against virtually all of the ills that can befall a tire. Care in driving is also essential to high tire mileage. If you persist in running in car tracks, bouncing over curbs, and demonstrating how quickly your brakes work when there is no emergency to warrant a quick action you can set yourself down as a mileage—and dollar—waster.

Here, in a sort of reverse of cause and effect, are some of the abuses to which tires are subject.

Bruised blowouts and stone bruises are the result of coming in contact with an object which causes the fabric to stretch beyond its elastic strength. Such objects may be stones, holes in the road, backing against the curb, rounding corners, and causing the rear wheel to strike the curb, etc.

A tire run underinflated is more subject to stone bruise or bruised blowout than one properly inflated, due to the fact that the indentation or stretching of the fabric will take place much easier when the tire is soft.

Chafed fabric results from running with an unvulcanized blowout patch or from running underinflated and allowing the tube to chafe. The latter is especially true in cord tires. An unvulcanized blowout patch is manufactured only to give temporary relief, and if a patch is to be used permanently it should be vulcanized to avoid any possibility of friction being present.

Cause of Cracked Fabric.

Cracked fabric is the result of underinflation or overloading. Every manufacturer has a recommendation as to the maximum load to be carried and a specific air pressure. This should be strictly observed by the motorist.

It is only natural that the average motorist, realizing, that a car runs easily when the tires contain a low pressure, will have a tendency to avoid a sufficient inflation. There is no danger of putting in too much air because any standard make tire will hold at least three times the amount of air pressure recommended.

Separated plies of fabric are due to exactly the same condition as above. It causes a considerable widening of the running surface of the tire and considerable flexing motion, causing the cushion to gradually break and release the adhesion between the tread and carcass, or between the various plies of fabric.

Rim cuts also result from this underinflation or overloading, due to the fact that this neglect permits the tire to lie down on the sharp edges of the rim. This is especially true with clincher type tires. Further than this, rusty and bent rims cause many rim cuts. The lateral sway caused by the fast turning of corners will also cause practically the same injuries as underinflation. Corners should be rounded at a reasonable speed.

Broken beads are the result of carelessness in application and serious blows encountered quite often in turning corners. Thread cuts and punctures result from glass, nails, cans, sharp stones, etc. Many a motorist will pass over these things unknowingly. However, a large number of them will not take the trouble to pull out to one side of the road if they see a slight obstruction.

Causes for Worn Thread.

A prematurely worn tread may be attributed to the following causes: Wheel out of alignment or wabbly wheel, bent axle, grabby brakes and clutch, spinning of wheel, skidding, underinflation or overloading, fender cuts, chain abuses and car track wear.

A wheel out of alignment will in most cases wear the tire down around the complete circumference, leaving a very sharp edge that has the appearance of simply being ground off. A wabbly wheel is mostly indicated by the tire being worn down in one or two spots. The same is true of a bent axle.

Grabbing clutch or brakes and skidding will cause the car to either stop or star suddenly and grind off the tread in one or several places. Fender cuts are the result of a common mishap when the fender will drag on and cut the tire. The same injury may be caused by projecting bolts or screws of any kind.

Chains properly fitted and used only when needed will not seriously injure a tire. However, they should at all times be loose and allowed to creep, so that they may hit a different part of the tire surface every revolution.

Running in car tracks will cause the tire to wear down on each side just where it comes in contact with the edges of the track. This will also cause a flexing motion, which will result in tread separation, due to the fact that an extra hinging motion is developed in the tire, this resulting in the friction or cushion being stretched beyond its elastic strength and breaking.

NON-STOP!

—London Daily Express.

An Ancient Sacred Song.

No choir singer nor any lover of church music tires of the "Te Deum Laudamus" music. In answer to an inquiry about this music, the Musical Courier says: "The Te Deum Laudamus dates from A.D. 600, and Nicolas, Bishop of Remisinia, in Dacia, is said to be responsible for it. It is said that the greatest of the settings for it have been composed in England The earliest one was written by Purcell for St. Cecilia's Day, 1694. His church music shows the original melodist.' In 1847 there was a revised publication of this Te Deum, which appeared as an Ode for St. Cecilia's Day.

"Dr. Blow was another Englishman who wrote church music, and he also composed an Ode for St. Cecilia's Day; he was organist in Westminster Abbey, wrote a Te Deum for the same instrument. The first sacred music that Handel composed to English words was the Utrecht Te Deum, the Mss. of which is dated January 14, 1712. There have been a multiplicity of Te Deums written."

Giving.

I prayed for great things—gave the small.
I prayed; no answer to my call.
I prayed that I might give great things.
My prayer was heard. On airy wings
There came to me from God's own hand
My heart's supply, my soul's demand.

—Margaret Olive Jordan.

At such a time as this it is all-important to lower the cost of producing farm products, and no field of agriculture offers greater opportunity in this line than does the production of live stock.

Waiting.

Serene I fold my hands and wait,
Nor care for wind nor tide nor sea.
I rave no more 'gainst time and fate,
For what is mine shall come to me.

I stay my haste, I make delays,
For what avails this eager pace?
I stand amid the eternal ways,
And what is mine shall know my face.

Asleep, awake, by night or day—
The friends I seek are seeking me.
No wind can turn my bark astray
Nor change the tide of destiny.

What matter if I stand alone?
I hail with joy the coming years,
My heart shall reap where it has sown
And garner up the fruits of tears.

The waters know their own and draw
The brook that springs in yonder height.
So flows the good with equal law
Unto the soul of pure delight.

The stars come nightly to the sky,
The tidal wave unto the sea
Nor time, nor space, nor deep, nor high,
Can keep my own away from me.

—John Burroughs.

Humility.

The bird that soars on highest wing,
Builds on the ground her lowly nest;
And she that doth most sweetly sing
Sings in the shade, where all things rest;
In lark and nightingale we see
What honor hath humility.

When Mary chose the better part,
She meekly sat at Jesus' feet;
And Lydia's gently opened heart
Was made for God's own temple meet;
Fairest and best adored is she
Whose clothing is humility.

The saint that wears heaven's brightest crown
In deepest adoration bends;
The weight of glory bows him down
Then most, when most his soul ascends;
Nearest the throne itself must be
The footstool of humility.

—James Montgomery.

What He Called It.

The bricklayer was a successful man. He worked hard and put by money. His only daughter was to learn to play the piano, and he went to a royal institution and explained these things to the eminent pianist, Professor Blank.

"I want her to have two or three lessons a week—I can pay anything reasonable, of course."

The famous master said he was willing to meet the bricklayer, and suggested that the girl have one hour's lesson a week, "and you may pay me just what you yourself earn in an hour."

The bricklayer glared at the professor.

"That extortion, that is!" he cried, as he walked indignantly from the room.

Needed Two.

The hill was steep and the load was heavy. The donkey did its best; but at last it stopped, and would not budge another inch.

Just then the driver saw a man passing.

"Excuse me," he said, "but could you help me to get this load to the top of the hill? It's too much for one donkey."

Unselfish leadership is the most valuable factor in community advancement.

Stories of Well-Known People

Vancouver's Punctual Mayor.

Mayor Charles E. Tisdall, of Vancouver, is well known for his habit of punctuality, which is almost an obsession with him. He has made it a rule never to be away from home after 10 p.m., and neither person or occasion can keep him abroad after his curfew hour

Even the visit of Lord Byng on his vice-regal tour of the west could not make Vancouver's mayor change his custom. He left his excellency in the skating rink at 9.45 p.m. and hurried away as fast as his legs could carry him to his own fireside

The mayor invariably walks, and in his early morning peregrinations he met W. E. Payne, secretary of the Vancouver board of trade, on three successive mornings recently, exactly opposite Con Jones' Granville Street store door, purely by accident on the part of Mr. Payne.

The fourth morning the board of trade secretary encountered the mayor thirty yards farther along the street.

"Good morning, Mr. Payne," exclaimed his worship, "you are late this morning."

The Author of "Blue Water."

Frederick William Wallace, the great Canadian writer of sea stories and incidentally, the organizer of the Canadian fishing industry through the years which brought it into being as an economic and political entity, is noted, as they say along the coast, more for the feat which is recounted here than for all his writing, navigating and public work.

This is the time when he went to the Banks on a winter voyage, and slept the whole fifteen days on a hardwood locker without a mattress or pillow.

The vessel he had come down to join had a full crowd of men and no spare bunks. The skipper advised Wallace not to make the trip, but to wait and join another vessel. Wallace had made up his mind, however, and accordingly threw his kit and oilskins aboard.

'They put into Westport, Brier Island, for shelter, after leaving port, and the skipper and Wallace scouted around for a mattress there, but to no avail. Again the captain advised him to give up the voyage, and again he refused.

In Wallace's own words: "It was pretty tough going at first for a spare man with no excess padding anywhere, but eventually I got so used to sleeping on that hardwood bench that Ostermoors failed to enthuse. A coil of tarred buoy-line made an excellent pillow, even though one got up in the morning with the imprint of rope across one's face. And what made me prouder than anything was the fact that the old hooker couldn't throw me off that wooden ledge no matter how she buck-jumped in the big seas."

When Wallace left the packet for home, the whole fleet had heard of his voyage, and he was greeted by hard-shelled sailormen with positive admiration, as "the guy that went to Brown's Banks bunking on a cabin locker without a mattress or pillow."

So is fame acquired among Banks fishermen, but Wallace remarks that all the same, "a straw tick is mighty comforting!"

London's Oldest Doctor.

The oldest working doctor in London, England, is Sir David Serjeant, who is in his ninety-third year. At the moment he is vaccinating as many as a hundred people a day at his home in Camberwell. He says that he does not feel tired or strained.

He puts his good health down to hard work and open air. "There are only eight more years before I reach my century," he told me, "and I hope to see them out, working in harness."

How Do You Walk?

How do you walk? Do you proceed in a straight line or zigzag from side to side?

If you watch a number of pedestrians you will find that nine out of ten bear to the right, return to their proper course, and then start swerving to the right again.

This is because our right leg is more fully developed and stronger than our left. A left-handed person usually swerves to the left in walking, for in his case the left side is the more powerful.

If a man is slightly deaf in his left ear he will swerve to the left. If his other ear is affected he will go in the opposite direction. This is because the deaf stoop slightly on the side on which they can hear least.

Short-sighted people will swerve to the side on which they have their worst eye. Even people who are perfectly well physically and whose bodies are evenly developed zigzag in their walk. This is because their thoughts wander and their legs have not sufficient guidance.

Small French Motor Attains High Speed.

Georges Barbot, winner of the gliding competition at Biskra, made four flights recently at Toulouse in a glider fitted with a seven-horsepower auxiliary motor.

According to Rene Quinton, President of the National Aeronautical League, who has received a personal account of the feat, Barbot attained a speed of 90 kilometres per hour, which makes his performance unique. According to a noted French aeronautical authority, Barbot's glider has a sensationallp flying range of 2,500 metres, and could travel 1,000 kilometres on 20 litres of gas.

"We are moving by great strides toward economical flying," Quinton declared. "Air navigation, which is most costly at present, is entering a new era, toward which we have been striving. It is going to become what the flight of the bird now is—the mode of locomotion least costly in effort."

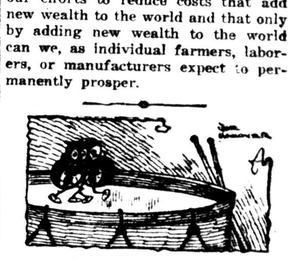
Barbot's accomplishment frees gliding from the handicap of hillside takeoffs, which has restricted experiments to a few localities.

OUR NEW WEALTH

All new wealth comes from the earth or from labor applied to the products of the earth. If in getting those products from the earth we spend as much as they are worth, no new wealth has been added, or if in applying labor to these products to change them into other forms for the use of man, the cost of the labor equals the increased value of the product, no new wealth has been created, and the world stands right where it did before.

If, however, we can reduce the cost per bushel, per ton, or per pound of wheat, of beets or of butter, even to a slight degree, we stand to gain just to that extent and if by the more efficient use of our labor we can increase the returns therefrom, both ourselves and the world are that much better off. Our efforts along this line are therefore fundamental to permanent prosperity.

While our attention must largely be centred around our own business, we should not forget that we are but a part of the world-sized institution of civilization, and all interdependent. Is it not plainly evident then, that it is our efforts to reduce costs that add new wealth to the world and that only by adding new wealth to the world can we, as individual farmers, laborers, or manufacturers expect to permanently prosper.



On With the Dance.

Bug (to sweetheart)—"What an ideal dance dearest!"

"Every little helps" is a proverb, and not an excuse for meanness.

LEISURELY TIMES

Once I used a horse and buggy as I framed my business deals, and the horse was old and pluggy, and the cart had squeaking wheels. I was never in a hurry as I tooled my one-hoss shay, and I didn't fret or worry if old Dobbin loafed all day. Up and down the roads proceeding, weary horses toiled along; no one then was pinched for speeding or for making signals wrong. And I prospered well and fully in those slow old days of yore, when no speeders, wild and wooly, down the smoking highway tore. I made money, if you ask it, in that calm, old-fashioned way; I took kopecks in a basket to the bank three times a day. Now I'm speeding in my flivver, here and there, on errands punk; up the hill, across the river, to acquire another plunk. I must never lose a minute, I must scorch to reach my goal; and I find there's little in it, when at night I count my roll. When I've earned some coin I'm needing, through this frantic haste of mine, I am pinched again for speeding, and it goes to pay my fine. I am whirling like a bobbin, I am sprinting like a deer; and I sometimes sigh for Dobbin and the gait of yesteryear.

—And a Man.

Who plays to win—but on the square—
Will move along Life's Thoroughfare,
The peer of Princes. For his sort
Shall ever be in good report
Among brave fellows everywhere.
What though he gain no riches rare?
Friends he shall have who do not court
His wealth, but only seek to share
The love and faith he has to spare
Who plays to win—but on the square.

He shall have heart and strength to bear
The battle with defeat, despair
And be the conflict long or short,
He shall be, to the end, a sport;
Who plays to win—but on the square!

—Berton Braley.

Under Control.

Aunt—"In reference to this young man, don't let your feelings run away with you—there may be heartbreak at the end."

Niece—"Don't fear; the heart-brake was applied at the beginning, auntie dear."

Standard Floor Mats.

Rooms in Japanese houses always are built to fit a certain number of floor mats, which are of a standard size, about three by six feet.

Are Continents Adrift?

We often speak of the solid earth, but scientists are beginning to wonder whether all the land portions of our globe are not in a state of movement.

It was discovered some years ago that part of Greenland was slowly changing its position. It is not exactly a rapid movement—a yard or two a year—still it is movement. Observations made recently seem to show that all continents may be drifting like sticks on the surface of a lake.

One scientist believes that thousands of years ago America was joined to the Old World, and certainly if you cut out the countries from a map of the world, like pieces in a jigsaw puzzle, you will find that North America fits quite nicely into the jagged coastline of Britain, France, and Spain, and that South America seems made to be joined to Africa.

I Keep My Tile in Order.

My drain tile are about the best investment I ever made, and I want them to work. So every year I try to check up their performance during April. With the frost coming out and the rains coming down, I find it easier then to locate obstructions, clean out clogged tile, fix broken places, and see that the outlets are working properly. A few hours' time walking over the farm after an April rain pays me well, for a drain left out of order usually means a few bushels off the crop yield somewhere.—M. H.

If you wish to accomplish great things, busy yourself with what the mediocre refer to as "mere details."

Achievements That Helped Man To Live.

BY RANSOME SUTTON

Reviewing the works of the world it is quite apparent that mankind has not progressed uniformly; that many colossal mistakes have been made, and that the progress of the races may be likened to the progress of an individual who goes forward two steps and then takes one step back. Nations, as well as individuals, have embarked on disastrous enterprises which sapped their resources and left them, like Germany to-day, exposed to their enemies. The energies of whole peoples have frequently been misdirected. What good, for example, has mankind derived from the Seven Wonders of the Ancient World, upon which so much labor was expended? Until Egypt began building the Pyramids the Egyptians were making rapid strides toward civilization. If their toil had gone into dams and irrigation systems their descendants would not now be dependent on other peoples. It is plain, therefore, that the work of the Pharaohs was misdirected.

Value of Human Achievements.

History teaches one lesson very plainly—human achievements, whether in the form of constitutions, or books, or battleships, or parthenons, must be valued ultimately by the character of the influence they exert on the minds and habits of mankind. Hence all efforts are misdirected and all works, however stupendous, are worthless unless they tend to increase human efficiency.

The really great achievements which revolutionized the character of mankind and made civilization what it is have not been numerous; they can all be counted on our fingers. Nor were they spectacular performances; they attracted little attention at first. But they changed man from a savage into a cultured civilian. These achievements grew largely out of the faculty of invention.

What Distinguishes Man.

It has been said that man differs from other animals in fact he uses tools. Back of the tools, however, lies invention, so it is the invention of the tools, rather than their use, that distinguishes man. Language cannot be regarded as the test, for many kinds of animals have ways and means of communicating with one another. R. L. Garner, who spent 120 days in a cage in an African jungle, claims to have learned chimpanzee. He also claimed to be able to exchange primitive ideas with monkeys in the zoo. Are not the clucks of a hen real words to her chicks? If language were the test many kinds of mammals would be men. And if the use of tools were the test trained apes which use saws and hammers would be men. No kind of creature but man, however, exercises invention, and because of his invention man has civilized himself.

The first epoch making achievement of mankind probably was the shaping of a stick into a club. To do that would involve invention. Wild apes are said to use sticks and stones, but they do not shape them; they use them exactly as picked up in emergencies.

To grab up a stick and use it against a beast is very different from the act of preparing the stick before the attack in order that it may be used efficiently. To grab up and use a stick results from an impulse; to fashion a club expresses an idea in wood. Before clubs were invented our ancestors were at a great disadvantage against the claws and tusks of their enemies. The invention of the club gave them a better chance. But did it not mean more? Did it not mean that into the pre-human brain a new faculty, the faculty of invention, had appeared? And did not the anthropoid which first exercised invention then and there cross the line which separates man from other mammals? Viewed in this light, the invention of the club may be regarded as one of the greatest achievements of mind; it armed man against his enemies and started him on the road toward civilization

While wielding clubs new made men discovered that inarticulate sounds could be rendered articulate and made to express ideas. This process also involved invention.

After inventing the club and language, savage genius invented ways and means for starting a fire. Without that achievement mankind would still be gnawing bones. Cooked food was good for the body and, rendering fish for the first time edible, enabled tribesmen to widen the boundaries of their hunting grounds.

An Amazing Invention.

Then came the bow and arrow, which, all things considered, was a most amazing invention. With it in his hands man could stand back and bring down game. Until quite modern times all the wars of the world were won with bows and arrows. Very few inventions indeed can be ranked with the bow and arrow. The spear, which grew out of the pointed pole, was of course a great invention, but spearmen were always at a disadvantage against bowmen. Armed with bows and arrows, skin clad savages, whose ancestors had invented clubs and language and learned the uses of fire, found their way into the remotest regions of the earth, regions into which they could never have ventured except for these inventions. As a result of these inventions on the minds and manners of mankind, savagery softened into barbarism.

Cave Country Gossip.

Miss Painted Hair—"Have you heard about Sadie Sabertooth's engagement to young Multiskins?"

Miss Fewskins—"There's nothing in it. Her mother gave her that bump on the knob with a bone cracker."

Good Building Prospects for 1923

Everything points to the year 1923 being an exceptional one for building construction in Canada. The number of contemplated projects announced at even this early stage is astonishing and quite beyond the ordinary level of Canadian building. This follows upon a year which saw a most pronounced revival of building in the Dominion and marked 1922 as an outstanding year in this regard. The impressive total of construction in Canada last year has been exceeded only three times in Canadian history.

The value of construction contracts awarded in Canada in 1922 was $331,843,800 compared with $240,133,300 in 1921, an increase for the twelve months of 29.5 per cent. The extent to which building construction has revived in Canada since the termination of the war is to be seen from a comparison of the figures of immediately previous years. Total value of construction in Canada in 1918 was $99,842,100. In 1919 it amounted to only $19,028,300 and in 1920 to $255,605,500. The amount of work undertaken last year shows an increase of more than sixteen per cent. over that done in the first year following the war.

Of the total value of 1922 construction, $104,291,500 was accounted for in residential erections, $81,385,700 in business establishments, $25,755,800 in industrial work, and $120,500,300 in engineering construction. The same total was divided over the Dominion as follows: Maritime Provinces, $11,154,000; Quebec, $103,291,800; Ontario, $166,628,000; and the Western Provinces, $50,770,000. The leading city in construction accomplished in 1922 was Toronto, which alone accounted for a tenth of the Dominion aggregate. Montreal, which in the previous year was on a practical parity with the Queen City, fell behind in 1922, though maintaining the second place. Following in order were Vancouver, Winnipeg, Ottawa, Hamilton, Quebec, Windsor, London, Edmonton, Calgary, Saskatoon, Halifax and Victoria.

It is doubtful if any phase of Canadian industry in 1922 can record so gratifying an achievement as building, and one has to go back to the prosperous pre-war years, 1911-1913, to find a parallel. During the year labor, capital and markets were all factors in contributing to healthy and sustained activity, and the promise of an even larger expansion to follow in 1923 is trustworthy. The month of December gave birth to $52,472,400 worth of fresh projects, the largest monthly aggregate since April, 1913. This is sufficient indication of what 1923 will accomplish, and using building construction as the fairly accurate barometer it generally proves to be, there is an augury for Canadian industrial development in general.

Pulp and Paper Progress in Newfoundland

According to the terms of an agreement stated to have been reached between the Government of Newfoundland, the Trades' Facilities Board of the British Government and influential British business interests, Newfoundland is to have a large pulp and paper plant which in proportions and capacity will rival that erected some years ago by the Harmsworth interests. According to advices from England which have been substantiated by the Anglo-Newfoundland Development Co., Ltd., of Grand Falls, the British Government has offered to guarantee bonds to the extent of $10,000,000 upon the proviso that the Government of Newfoundland guarantees a like amount, but what conditions are attached to the guarantees have not been made public.

The scheme talked of provides for the establishment of a paper mill of 400 tons daily capacity with surplus power for the aluminum industry. The projected work, which will give employment to a large number of men, consists in raising the waters of Grand Lake about 20 feet, and as the lake has a surface of 56 miles by 3 the storage by dam thus developed will be considerable. From Grand Lake the water will be carried for a distance of 7½ miles through a canal to Deer Lake with a head of 175 feet. From the proposed mill site at the head of Deer Lake, the manufactured paper will presumably be shiped at Humbermouth, Bay of Islands, via a railroad haul of 28 miles. On the other hand, the mill may be erected at Humbermouth on tide water and the power transmitted from Deer Lake to that point. The Reid Newfoundland Company are said to be putting their timber limits into the scheme.

Newfoundland has large areas of black spruce and other timber eminently suitable for manufacture of pulp and paper, and these areas are proving very attractive to European developers. The pioneer of the industry in the island was Lord Northcliffe's company, the Anglo-Newfoundland Development Company, whose plant was established at Grand Falls in 1909. The cost of the installation of this plant was about $6,000,000; it has a permanent plant staff averaging 600 men and a winter logging staff of 1,500 men; about 120,000 cords of pulpwood are cut each winter. The Grand Falls mills have, since 1909, provided the paper for all the Northcliffe publications in England.

Considerable development followed in the wake of the entry of the Northcliffe company into the Newfoundland pulp field. A Norwegian company completed a plant for the manufacture of sulphite pulp at a cost of $2,500,000. Another company with 820 square miles of timber limits is operating mills at Bishop Falls. The output of the plant at Grand Falls is 200 tons of pulp per day, whilst, according to plans, that of the new company on the Humber River will be about half as much again. The annual value of pulp and paper exports from Newfoundland exceeds $5,000,000.

Under Newfoundland law the export of unmanufactured pulpwood is prohibited, and from this basis the thriving pulp and paper industry of the island has been built up. In the last decade there has been a gratifying development in the industry, which will be considerably enhanced by the new establishment, but there is, nevertheless, room for much greater exploitation and the introduction of many more such plants, the establishment of which is encouraged and assisted in every possible way by the island government.