

The AUTOMOBILE

GOOD ADVICE ON TIRE CARE.

Rubber tires in the period of one generation have almost completely replaced tires made from all other more durable materials on bicycles, motorcycles, automobiles and trucks. The demand has been more and more for speed and traction, for greater comfort in riding and for saving of the vehicle and the road, and in response to the demand tire construction has changed and progressed so rapidly the equipment which four years ago averaged 4,000 miles, as constructed at present will render more than double that mileage.

In spite of these marked manufacturing improvements in tire development and in quantity production, improvements that have given a standard product and at the same time reduced its cost 100 per cent. to the consumer, the motorist himself has not been made to realize how much additional saving he can add by giving his tires the same intelligent care that he gives his motor or other parts.

The motorist has failed to appreciate that 80 per cent. of the materials that go into a high grade pneumatic tire are of a vegetable nature, and consequently perishable, and that the rapidity of perishability depends to a considerable degree on the extent of unnecessary exposure of the tire to deteriorating combinations of moisture, light and heat, as well as avoidable destructive abuses such as cuts, abrasions and ruptures.

A Billion for Tires.

Steel tires are practically immune from human abuse, but rubber tires are not, and their careless destruction becomes a world-wide economic loss, with an annual tire bill of considerably more than \$1,000,000,000. By proper care 10 per cent. additional tire mileage could be obtained, which, translated, means a yearly upkeep saving of over \$100,000,000. Early failure of tire equipment can be checked and corrected by persistent publicity methods.

Keeping in mind then that without rubber tires the motor vehicle as we know it to-day could not exist; that the rubber and cotton in tires are of a perishable nature and have limits in withstanding abuse; and that by observing some simple precautions, easily within the ability of anyone, tire life can be prolonged 10 per cent.—is it not worth while to review the essentials of the care and upkeep of rubber tires?

A majority of pneumatic tire failures take the form of a puncture or a blowout. Punctures are generally easily understandable, since they result from a sharp substance piercing both casing and tube. Well constructed tires of proper size for the car do not puncture easily or frequently. Because of their flexibility cord constructed casings puncture less easily than the square woven fabric type.

Blowouts, on the other hand, may be

traceable to a long list of causes. A blowout may occasionally effect only the tube. More often, however, it involves both tube and casing. A blowout or rapid leak in the tube alone is more often the result of a tube pinch, caused by mounting on improper size or dirty rims, by lack of soapstone lubricant, by dirt or rough spots or rupture in the casing, by improperly fitting valve, by folded flap or by catching the tube under the bead.

Reasonable insurance against tube pinching and resulting leak or blowout is to exercise intelligence and select the proper size tube and flap for the casing, keeping the rim in good condition and using care in the assembly and mounting of these units.

What Makes a Blowout.

Ordinary blowouts that affect both casing and tube are the result of a weakening in the fabric of the tire carcass. All tires blow out in time if used long enough, but such natural failures come late in tire life. It is the blowout resulting from tire abuse that is costly and that must be avoided if the tire is to render its full service.

The most flagrant tire abuses, resulting in premature blowouts in casings, are: Overload, under-inflation, overspeeding, misalignment of wheels, driving in car tracks and ruts, neglected cuts and improper use of anti-skid devices. A brief detailed discussion of each of these major abuses follows:

All tires have a load limit. Constant slight or occasional heavy overloads shorten tire life. To determine accurately the load carried on a vehicle tire, weigh separately the front and rear wheels, and divide each weight by two for the tire load. To this can be added weight figures corresponding to the average front or rear passenger load. The maximum actual tire load should not exceed the maximum load carrying capacity advertised by responsible tire manufacturers.

Importance of Inflation.

Proper inflation is as important as proper loads. Tires are not built to take the place of steel springs or of shock absorbers. Under-inflation results in an unnatural flexing of the layers of fabric, which causes separation and early destruction of the tire carcass. If easier riding is desired, oversize tires may be used, and such tires, in addition to furnishing extra resiliency, give more traction on rear wheels and supply greater mileage. However, oversizing tires requires a readjustment of the speedometer; otherwise the recorded distance will be less than that actually traveled.

Do not change inflation pressures with changes in atmospheric temperature, since more damage results from endeavoring to compensate for an increase in the tire temperature than is caused by the increase in temperature itself. Avoid running on a flat tire. Such practice ruins the tube and breaks the casing at the bead or sidewall.

"Brainy" Bits!

Elephants and whales are said to surpass human beings in the weight of their brains. But, compared with the weight of the whole body, there are not many animals which can beat man—in fact, it may surprise the reader to know that there are animals existing which rank ahead of humanity—taking, of course, the weight of the brain as against that of the whole body.

Many kinds of monkeys, certain members of the squirrel family, and a few of the mouse species, all being small animals, surpass man in brain—so we are told. Any animal, however, which is larger than a man, has no brain which is relatively as large as his.

It would appear that man's mental superiority is due rather to the quality and organization of his brain than to the size.

The usual weight of a man's brain

is said to be 49½ ounces, as against a woman's 44 ounces.

A small head is no criterion as to the brains of a person; it depends upon the cerebral convolutions as to one's brain power. Indeed, it is said that large brains do not always denote great mental capacity.

Many celebrated men in the past have possessed brains weighing less than the average 49½ ounces of mankind generally.

A brain weighing over 50 ounces—said to have been the heaviest known—was the possession of a man who never earned more than ten dollars a week during the whole of his lifetime! Another man who never earned a large sum was said to have a record brain for weight, so that size and weight are nothing to go by.

Fishes' brains weigh a 3.88th part of the whole of their bodies.

There isn't much hope for the person who can not see and take a joke

Try the Sun Bath Cure

Bathing in the sun's rays for health is an ancient ceremony, handed down to us from the earliest ages. Wise sages in bygone times used to bathe in the sunshine, believing in the great value of light as a destroyer of disease. Light was the secret and universal medicine by which they cured many diseases.

Sunlight is the greatest factor in our planetary existence; if it failed all life would perish. One has only to look at Nature for potent examples. In vegetable, animal, and human life the influence of sunlight is strongly manifest. Compare the vegetation in the gardens of a back street away from the sunlight with similar growth in the open country. Compare the children of the country with those living down a narrow street of an industrial town.

For creating good general health and happiness no medicine is so effective as the direct rays of the sun. A sun bath consists of letting the rays of the sun bathe the skin each day, preferably during the morning. The body is, of course, wholly or partially uncovered.

Of course, this must not apply to the head when the sun is very strong, as

though sunlight is a greater beautifier of the skin and hair than any prescription of a beauty specialist. Sunlight exercises a most soothing and beneficial effect up on the skin by rousing its dormant energies, thus stimulating the whole nervous system.

People who live in the sun are far more cheerful and healthy, being almost entirely free from the "nervy" tendencies of those who live in dull, grey climates. A simple test of this statement can be made with one's friends on dull and sunny days. Watch them! The effect of sunlight upon a highly nervous subject is marvellous.

Sunlight is life! One touch of the sun brings smiling Nature back to instant life. Where people are in the habit of getting as much sunlight as possible it is found they are optimistic, healthily affectionate, well-met people, with a big heart and a clear eye.

The magnetic rays re-charge one's nervous tissues, electrify the blood, and purify the skin.

A fitting completion to the sun bath "cure" is to drink a glass of water which has been exposed to the sun's rays for ten minutes. It is one of the finest tonics in the world—and the cheapest!

—and the worst is yet to come



Bits of Canadian News.

Announcement has been made that the University of New Brunswick has created a new chair in Forestry. Since the department was established some thirteen years ago there has been but one technical forester in the employ of the University. The demand for foresters has been so heavy in recent years that a second instructor has been appointed, and it is hoped that still further development will come in the near future.

Messages have been exchanged between Leaflet wireless station, near London, England, and Barrington Station, N.S., it is announced by the Department of Naval Services. The stations are 3,000 miles apart and the Leaflet station is the first one of the Imperial wireless chain which is to establish communication between all the British possessions. The Leaflet station communicates with Polson Arcs, of 250-kilowatt capacity. The chain will later on be extended to South Africa and through India to Australia.

Communication between Great Britain and Canada, and Canada to Australia, will probably be established later on. During the year 1920, 280 companies were incorporated in the Province of Saskatchewan, as compared with 248 companies, capitalized at \$10,218,930 in 1919 and 184 companies, capital \$3,767,480 in 1918. To the end of July, 1921, 221 companies were incorporated with a capital of \$3,734,000. In addition 40 rural telephone companies, with a capital of \$17,445, were incorporated in 1920. To the end of July, 1921, 22 companies were incorporated with a capital of \$8,290.

According to information received by the Division of Economic Fibre Production of the Central Experimental Farm at Ottawa, the area sown to flax for fibre in 1920 was 31,000 acres, all in Ontario, as compared with 20,262 acres sown in Ontario in 1919. The yield of flax fibre was 3,720 tons, the average rate per acre being 240 lb. Flax tow yielded 1,860 tons, or 270 lb.

The March Past.

Show them the way, Dominion men, Steady the ranks as in days of yore. Dress by the right! let us see again How steady you'll swing into columns of fours, For Byng will take the salute.

By the left, quick march! Canadians all,

With eyes as bright and faces grim As they were that day when you heard the call

And formed in line to march past him, Who to-day will take the salute.

Forward again, and you seem to smell The sweat and the dust and to feel the load

Of years ago, when you swung through hell And tramped out again down a shell-rippled road,

To give Ol' Byng the salute.

That long, white road, when you straggled by, With the whine of "heavies" overhead,

And the dead trees naked against the sky; How you straightened up, and every head

Turned round and gave the salute.

Pass on, parade! Your empty files—Nay! can we forget the sacrifice made?

Carry on, men! with the same old smiles, Sons of a breed that is never afraid, Eyes right! Your leader salute!

Life is a Mirror.

Life's a mirror: if we smile Smiles come back to greet us. If we're frowning all the while, Frowns forever meet us.

to the acre, and there were also 217,000 bushels of seed, the average yield per acre being 7 bushels. The fibre and tow have not yet been sold, but the seed, at \$2 per bushel, realized \$434,000.

A syndicate is reported to have been formed to undertake extensive gold mining development in New Brunswick. Prospecting work has already been carried out in Victoria county by other companies, but it is not the intention of the new company to investigate the possibilities of that county at the present time.

The total value of repair work in Canada in plants devoted entirely to this branch of industry in 1919 amounted to \$26,586,138, on an aggregate investment of \$24,186,265, according to the Dominion Bureau of Statistics. This industry in 1919 employed 7,709 shop workers earning an aggregate wage of \$7,480,604 and 1,299 office workers earning a total salary of \$1,301,607.

Work on the Lethbridge Northern Irrigation project is proceeding apace, and progress beyond anticipation is being made. In the month of July excavation of 650,000 yards was made, which is 150,000 more than the quantity looked for, so that construction will be completed by the time allowed.

Canadian students in Paris will soon have a home while attending universities there, it is announced by Hon. Athanase David, provincial secretary. The City of Paris has granted space to construct a commodious edifice on the grounds of the Sorbonne, and it is said that as soon as possible the 130 Canadians now in Paris will have suitable accommodations on the grounds of the University.

A shipment of nearly two million feet of British Columbia fir, from Vancouver, via the Panama Canal, arrived at Three Rivers, Que., recently. This is the first vessel, it is understood, to make the trip from British Columbia to Quebec ports via the Canal.

Berlin's Best Jokes.

Is the ex-Kaiser as popular in Germany as he was before the war? It would appear that he is not the worshipful idol he was. At one time his very name inspired fearful admiration among the German people—their great ruler who could do no wrong. Nowadays he is the subject of much-hall jokes.

The following patter was given by two cross-talk comedians (Germans both by nationality) in one of Berlin's leading vaudeville theatres recently: "Good-evening, Hans!" said the first comedian. "So you're back from the war?"

"Good-evening, Fritz!" replied the second. "Yes, I'm back from the war, but it took me a long time to get back!"

"I suppose, Hans," continued Fritz, "you must have been the last one to leave?"

"No, Fritz; there is one who isn't home yet."

The "one" referred to was the ex-Kaiser, and the house roared with laughter.

Swans Ring for Dinner.

One of the sights of Wells, in Somerset, is the family of tame swans on the moat surrounding the Bishop's palace, close to the cathedral.

From one of the windows overlooking the moat hangs a rope attached to a bell, and when the swans are hungry they tug at the rope with their beaks, and so ring the bell, and food is then thrown them from the window.

About sixty years ago, between 1855 and 1860, Miss Eden, daughter of Lord Auckland, Bishop of Bath and Wells, taught the swans to ring the bell, and they and their progeny have rung for their meals ever since.

His Majesty's Press Agent

Though the profession of Press agent is what we might call a new one, nearly everybody now is awake to the utility of the publicity expert.

The stage folk first called the Press agent into being, and now Society people, learned bodies, great commercial concerns, charities, and even Government departments, employ astute and experienced gentlemen to give out information to the newspapers and correct any false reports that may creep in.

But very few people know that there is a publicity expert installed in Buckingham Palace itself. Naturally, he is not employed to "boom" Royalty, which needs no specially prepared advertisement; but his job is none the less onerous and exacting.

Every newspaper man knows that Royalty and its movements and intentions is a topic of the deepest interest to the great mass of the British public, and to the world at large. And every newspaper man also knows that the printing of incorrect and inaccurate statements on this theme would bring unpleasant consequences. This is where the Buckingham Palace Press agent comes in.

Suppose a newspaper man gets hold of what in his printing office slang he calls a "story" about Royalty. He dare not print it without confirmation. So he rings up Buckingham Palace and "gets on" to the official who attends to all Press matters, and who will confirm or deny the story. Perhaps he will even add a few corroborative details.

There is great joy in the reporter's breast when this happens; there is corresponding depression when a courteous reply comes back over the

wire to the effect that Buckingham Palace is unable to confirm the report. On more than one occasion the writer has been to the King's London home to consult with the Royal publicity man.

It was extraordinarily easy to get into Buckingham Palace. At the big iron gates fronting on the Mall one simply told the big policeman on duty whom one wanted to see, and with a wave of his white-gloved hand he indicated the proper door.

Inside that door a pleasant-mannered official explained the way to Mr. —'s room. Down what seemed several miles of red-carpeted corridors one tramped, and finally found one's quarry in a very desirable sitting-room looking out on the courtyard.

There was no fuss or bother at all. I have had more trouble getting to see some jumped-up celebrity of the moment than in penetrating to the heart of the King's Palace.

Contrary to the general belief, Royalty takes a great interest in the papers, and each member of the Royal Family has his or her favorite journal. Both the King and the Queen show consideration for the members of the Press in the execution of their duty. Not long ago the Queen was taking a leading part in a function in South London. Noticing that, owing to faulty management, some reporters were placed where they could neither hear nor see to any advantage, the Queen directed that they should be put nearer the Royal dais.

Contrariwise, any inaccuracy in a newspaper report is soon detected, and an official rings up the editor and administers a correction and a rebuke.

A Public School Idyl.

Ram it in, cram it in, Children's heads are hollow; Slam it in, jam it in.

Still there's more to follow: Hygiene and history, Astronmice mystery,

Algebra, hystology, Latin, etymology,

Botany, geometry, Greek and trigonometry.

Ram it in, cram it in, Children's heads are hollow.

Rap it in, tap it in, What are teachers paid for? Bang it in, slam it in,

What are children made for? Ancient Archeology, Aryan philology,

Proslody, zoology, Physics, clinicology,

Calculus and mathematics, Rhetoric and hydrostatics.

Hoax it in, coax it in, Children's heads are hollow.

Rub it in, club it in, All there is of learning, Punch it in, crunch it in,

Quench their childish yearning For the field and grassy nook, Meadow green and rippling brook;

Drive such wicked thoughts afar, Teach the children that they are But machines to cram it in.

Bang it in, slam it in, That their heads are hollow.

Scold it in, mold it in, All that they can swallow; Fold it in, hold it in,

Still there's more to follow; Faces pinched and sad and pale Tell the same undying tale,

Tell of moments robbed from sleep, Meals untasted, studies deep, Those who've passed the furnace

through, With aching brow will tell to you, How the teacher crammed it in,

Rammed it in, jammed it in, Crunched it in, punched it in,

Rubbed it in, clubbed it in, Pressed it in, caressed it in,

Rapped it in and slapped it in, When their heads were hollow. —Puck.

A Curious City.

The most curious city in the United States of America is the capital, Washington.

To prevent jealousy between the various States it is not in any one State but in an entirely separate area called the "District of Columbia," in which the inhabitants have no votes whatever, but are ruled by a commission appointed by the Federal Government.

The city was planned by a Frenchman, L'Enfant, on the lines of Versailles. The Capitol, the building in which Congress meets, is in the centre of the city, and all the main streets radiate from it and are named after the different States.

Near by is the Congressional Library, which contains, among other interesting documents, the original "Declaration of Independence." While he is in office the President of the United States lives at Washington, in the White House.

Outside the city is Mount Vernon, George Washington's home. It belongs to the State and is open to the public, the rooms being filled with eighteenth-century furniture and relics of the Washingtons.

In November an International Conference will be held in Washington, and another interesting chapter will be written in the City's history.

Solomon's Temple, for the building of which practically the whole manhood of Israel was commandeered, would have cost \$5,000,000,000 to construct at present prices.

Growing Insect Powder.

The bug powder market in Japan is said by news dispatches to be "depressed." This should be cause of elation to the bugs.

During the war there was an enormously increased demand for bug powder—known in the trade as pyrethrum or "Persian insect powder"—great quantities of it being used in the trenches. The price went sky-high.

Japan exports the stuff by millions of pounds annually. But since the end of the war the demand has fallen off and the price has dropped to one-fourth what it was.

It used to be a mystery. Nobody knew where it came from or what it was made of. For centuries it was familiarly known in Asiatic countries before Europe was acquainted with it. Although the secret was carefully kept, discovery was eventually made that the "Persian powder" was simply the ground-up flower heads of a plant closely resembling our common field daisy. Its efficiency as a bug killer is due to a volatile oil which suffocates insects.

In Europe the plant was first grown extensively in Dalmatia, where at the present time it is cultivated on a vast scale. The United States Department of Agriculture, wishing to introduce it into the States, imported the seeds again and again, but they refused to sprout—the reason, as eventually ascertained, being that they had been previously baked by the canny Dalmatian planters.

At length, however, they secured some live ones, and it is now produced in California on a big scale, a single farm near Stockton having 300 acres devoted to the plant that yields pyrethrum.

What It Costs.

What one thing holds humans back more than any other one thing? What is man's most serious handicap and woman's stumbling block?

What one thing has cost you more friends and, without doubt, more money, than any other one thing? Answer: Anger!

Anger comes in when reason goes out.

When you are wrong, you usually get wrath. When you run into a rage, you lose all control of yourself and of others.

When a man is in a frenzy, he is more than foolish—he often is criminal.

Consequently, losing your head is sure to lead to some serious situation.

Getting angry means that you are suffering from a form of physical or mental weakness.

When your hands get cold, your face livid, your tongue dry and thick, the shock means that you have shortened your stay on earth.

Shark Skin Found Good for Shoes.

Recent tests of sharkskin uppers for shoes by the United States Bureau of Standards were made in a way both ingenious and practical. Pairs were made to order, with one upper of kid and the other upper of shark leather, and these were worn by employees of the bureau.

It was found that the shark leather wore better and longer than the kid. It has the special advantage of being waterproof.

It is officially announced that shark hides yield leather of high quality, suitable for many purposes and attractive for travelling bags, brief cases, desk sets and the like. When the value of the skins for "cod-liver" oil and the availability of the flesh as a meal for feeding animals are taken into consideration, it seems obvious that there is an important future ahead of the shark fishery.