

# The AUTOMOBILE

## What's Your Driving Style.

I like to watch the cars go by  
And see the different kinds of driving;  
Some sit up straight with heads so high,  
Some crouch—as on the point of diving.  
Some hide behind the steering wheel,  
Content that just the head is showing;  
Some look alive and keen as steel,  
Some hardly know where they are going.

Some signal to the cars behind,  
While others see to quite forget it;  
Some hog the road and do not mind,  
Some try to pass—and then regret it.  
Some shift the gears with greatest care,  
But some make such a dreadful clashing  
I'm fairly driven to despair,  
And wonder just how much they're smashing.

And in the crowd I see each day  
There are some who are very grouchy,  
And there are many who are gay,  
Some dress so well and some are slouchy.  
And where they come from, where they go  
And what they do upon arriving  
No one can tell; I'd like to know  
How some, though, get the cars they're driving.

## Home Repairing.

To the average small-car owner of limited means tires are the greatest expense of upkeep, especially if he lives in a rural district where good tires are rare. In such a locality even a new tire will show bad cuts and jags after only a few miles of running. Loose rocks are the cause, and many roads around small towns have patches composed of this material.

Damage done by these small stones is only slightly less than that done by broken glass. The usual result to the tires is a small patch of rubber tread totally removed, or a semicircular cut leaving a flap of loose rubber. These deep cuts are the beginning of sand pockets. Deep cuts expose the fabric, which in a short time wears through, and a blow-out is the result. Cuts of this nature, unfortunately, do not look bad—not nearly so bad as many less harmful bruises and scrapes—so they are neglected. Thousands of tires are wasted this way every year.

Such cuts look formidable to the owner inexperienced in making his own repairs. It is useless to insert tread filler, so he sends the tire to the repair shop or lets it wear as it will. Shop vulcanizing costs from \$3 to \$5 and is entirely unnecessary if the cut is taken in time.

Any tread cut up to two or three inches can be quickly and successfully repaired at home with one of the small gasoline vulcanizers now on the market. Tire-vulcanizing to the uninitiated seems a difficult process. It is really simple to make a thoroughly satisfactory permanent repair on any part of the casing, excepting rim cuts in the tire fabric.

The main thing is to take the cut in time. A tire that is cut through the fabric must be sent to "the shop" but if only the rubber is damaged the home vulcanizer is sufficient.

First, thoroughly cleanse the cut with gasoline. Then, with a sharp penknife, trim all jagged edges and loose ends. In some cases a piece of tread which is not torn clear off may be stuck back into position by vulcanizing, but for holes up to an inch in diameter it is better to remove all loose rubber. Next, slightly bevel the

edges of the hole with the knife. This gives the new rubber more surface.

The next step is to cover the entire cut with a rubber cement, made especially for vulcanizing work. At least two coats must be applied, and it is well to leave each coat dry for fifteen or twenty minutes. If there is time to spare, three coats would be even better. These should not be applied too thickly. When the last coat is dry enough not to stick to the fingers—it may be tacky but must not be wet—it is then time to apply the compound or filler.

This is unvulcanized tread stock. Though a small quantity is usually supplied with the repair outfit, it is better to buy it in pound or half-pound rolls from a motor accessory dealer. If the hole is large and the portion of tread to be replaced is thick, the stock may be cut into pieces roughly the size of the hole, and packed in layers. The corners and edges of the hole should be filled by cutting thin strips of the stock and pressing them into place with a toothbrush or similar strong non-metal tool.

If the compound is warmed slightly before using, it will be found more plastic and easier to handle. Do not allow the filling to protrude above the surrounding tire surface, but make it as level as possible. Slight inaccuracies are not important, as the rubber will run together in the heat of vulcanizing.

All that remains now is the placing of the vulcanizer. Usually it is attached to the tire by means of two hooked bolts. Just insert a piece of waxed paper between the tread and the vulcanizer. To test the vulcanizer for correct heat, wet the finger and touch it to the top of the iron after it has been lighted about ten minutes. It should hiss at the touch.

The time required for cooking a patch is frequently underestimated. It can accurately be found by experiment only. A deep hole will require half an hour or more while small holes will require proportionately less. Notice, I say a deep hole. The time of cooking should be gauged by the depth of patch, and not by the surface size.

When the vulcanizer is removed and the tire is allowed to cool for a few minutes, the rubber in the patch should be tested with the finger nail. If it is possible to leave an impression, the rubber is not cooked sufficiently. If, on the other hand, it is not possible to make an impression, it has been cooked too long. If the job has been done correctly, any impression you make in the patch should not show when you remove the pressure.

Rubber in a perfect repair should of course be the same consistency as the rest of the tire—that is, soft enough to receive but not to retain an impression. If the patch is undercooked the vulcanizer should be replaced and the cooking continued.

There are small gasoline vulcanizers on the market ranging in price from \$2.50 to \$3.50 that will practically last forever. The only additional cost is for tread stock. Gasoline is a small item, as two tablespoonfuls will cook a large patch. As a rule, a measure is provided with the outfit. Repair work may be done in the evenings or on rainy days, to avoid interfering with other work, although it takes little time.

The great advantage in repairing tires in this way is that no time is wasted in taking the casing from the rim. The car is simply jacked up, and sufficient air let out of the tire to enable it to conform to the vulcanizer when it is screwed on.

## How a Tape Machine Works.

Those busy little machines, which, clicking away inside their glass cases, print all the latest news on long strips of paper, are one of the marvels of the age.

Yet really they are quite simple. They are in two parts—one for transmitting the news and the other for reproducing it. One transmitter is capable of working any number of reproducers. At first glance, the former is not unlike a piano, with only thirty or so black and white keys. Each key represents one letter or other sign, and, on depression, completes an electric circuit.

This current passes over the wire to the transmitting machine, and rotates in it a wheel, on which is a complete alphabet of letters. Above this wheel is another, which is merely surrounded by a pad rim. Between the two wheels passes a narrow strip of paper upon which the message is going to be typed.

As the type wheel presses up, forcing the paper against the pad on the wheel above, hey presto! the letter required appears on the slip of paper.

Messages are not sent very fast, about five seconds being allowed between each letter, yet even at this rate it can be seen messages are written in 250 different places at one and the same time, in far quicker time than they could be dispatched and received by ordinary telegraph.

Say, with Balzac, in his garret, when told that in literature, which he had chosen for his calling, a man must either be a king or hodman, "Very well, I will be king!"

## At Sunset.

When work is almost done, I softly steal  
Up to my tiny window where I kneel,  
And watch the sun in clouds of wondrous light,  
Sink low upon the moors and out of sight.

And while I watch this radiance, I seem  
To lose myself completely in a dream,  
That carries me a million miles away,  
Where troubled thoughts of work can never stray.

My room becomes a bower, my house a place,  
The fairest lady would be proud to grace;  
Position, beauty, worldly wealth and power,  
Are my possessions for this precious hour.

Then, from my dreams I waken with a start:  
"Muvver!" A voice is tugging at my heart;  
"Coming, dearheart," I call, and with a smile,  
I travel back from dreams to things worth while.

—Katherine Parsons.

No human being has a second stomach; but every boy has a second appetite.

A loss of more than 85,000,000 in world population has been traced to the World War. Battle deaths were 9,000,000. The other loss was caused by war epidemics, food blockades, starvation and the fall in the normal birth rate.

## —and the worst is yet to come



## Here and There in Canada.

The population of St. John, N.B., is estimated to be 67,050, based on the new directory, which gives 2,340 new names, an increase of 913 over last year. Last year the estimated population was 64,305.

More than one and a quarter million barrels of apples were exported from Canada last season, the greater bulk of these going to the United Kingdom. It is pointed out in a statement issued by the Department of Agriculture.

A report has reached Montreal from London, England, stating that at the Founder's Day at the Barnardo's Village Home, Sir H. H. Stilleman mentioned that the emigration of boys and girls to Canada, which was suspended during the German submarine campaign, has been resumed, and nearly 500 children had been sent out to join the 23,000 already in the Dominion.

A party representing the Hoffman Pulp and Lumber Corporation, left Sydney, N.S., recently, on a tour of inspection of the company's timber holdings at Hamilton Inlet, Labrador. The purpose of the visit is to make an exploration of the territory and to take all preliminary steps which would lead to operations next spring. Mills will have to be established and housing accommodation for a thousand men erected. The territory acquired by the corporation covers an area of 148 square miles, and it is the intention to cut a minimum of 100,000 cords of pulpwood per year.

Starting in 1911 with an output of 90 tons, the chemical pulp industry in British Columbia has increased year by year until in 1920 the output reached 108,670 tons. The first year in which mechanical pulp was manufactured in the province was 1917, in which year 65,000 tons was turned out. In 1920 this had increased to 108,000 tons. In 1913 the output of paper was 45,816 tons. This increased to 146,500 tons in 1920. The value of pulp and paper production in 1920 in British Columbia was \$21,500,000, making it one of the most important industries in the province.

A survey will be made of the muskogs of the North this summer by the Federal Department of Agriculture to determine their agricultural possibilities. The question of developing the muskogs will be fully investigated and experiments on a large scale carried out. If the experiments prove successful, several rich areas will be offered to agriculturists, and the result will undoubtedly prove of great value to the western provinces.

## Potted Voices.

Although Madame Patti, the great soprano, had passed her best when the gramophone came into being, yet records of her matchless voice are in existence, and were recently used to demonstrate the art of the great singer.

Many young people who are interested in music, or sing themselves, ask whether Sims Reeves sang better than Thomas Burke, if Jenny Lind sang as well as Tetrazzini, or whether Madame Clara Butt has as pure a contralto voice as Antoinette Sterling or Madame Patti. Old concert-goers often stick up for their early loves, but comparison is impossible, for their voices are long silent, and new ones hold the field.

But the gramophone has ended that phase. The new singers to come can be compared vocally with the singers at present holding the field. The gramophone has got all the great singers "in pickle," and everybody will be able in the future, even long after they have passed away, to taste their beautiful quality.

Yet what would we not give to be able to put Jenny Lind or Joseph Mass or Madame Patti on the gramophone, and listen, as our fathers and mothers did, to their entrancing songs? What would "My Pretty Jane," sung by Sims Reeves, be valued at to-day, or "Callie Herrin," sung by Antoinette Sterling, and sung as she alone could sing it?

## British Pearl Fisheries.

Coming down the Highland railway recently, where the line runs alongside the Tay, the writer saw two men in a boat, one of whom was leaning over the side, holding a sort of box in the water.

A friend who was with him explained that the men were pearl fishing. The box was a "water glass" used for eliminating the surface ripple, and so examining the bottom of the river.

When a mussel is seen, the fisherman pushes down a length of stiff wire, thrusting it between the open shells of the fish. These close at once on the wire, and so the creature is drawn to the surface.

These mussels are of considerable size, and quite a fair proportion of them hold pearls, though only a few of these are sufficiently well shaped or lustrous to be valuable.

Yet the mere fact that pearl fishing still goes on in a good many Scottish and Irish rivers proves that it must be worth while. The principal Scottish rivers for pearl mussels are the Dee, Spey, Don, and Esk, while another centre of pearl fishery is in Ulster, in the Foyle and its tributaries.

Pearl fishing goes on regularly in all these streams, and the proceeds of the fishing are sold to local jewellers. A jeweller at Strabane gave \$40 for a pearl which was found in a small stream near the town, and plenty of pearls worth five to ten dollars each are got every season. Most of these fresh-water pearls are white, but now and then very beautiful pink ones are obtained. No special skill is required in the fishing, and amateurs and holiday-makers have almost as good a chance of success as the professional fishermen.

These pearls are accumulated around a nucleus consisting of the dead larva of the distoma, or fluke. The full-grown fluke inhabits the bodies of the eider duck or black duck, but the pearl mussel acts as host to the young in a certain stage of their development.

## Saving His Face.

A recent writer on the old-time merchant marine says that the first steanship to visit China was the Jamesina from Bombay. When she entered the Canton River and in accordance with old custom had taken on her Chinese pilot at Lintin she resumed her course, proceeding under steam against wind and tide. The pilot showed no curiosity and asked no questions. Soon in a perfectly matter-of-course manner he began to give occasional directions to the helmsman—such directions as he would have given if the Jamesina had been a sailing vessel. That was too much for the British captain, and he called the pilot's attention to the fact that the ship was propelled not by wind but by steam.

"Oh," replied the Chinese coolly. "It is a method that is no secret in some parts of the empire: it was common once, but it has now for some time fallen into disuse."

## Modern Forest Fire Fighting.

Great as has been the advance in fire fighting methods and equipment in towns and cities in Canada in the last five years, the advance in fighting forest fires has been even greater. Dominion, provincial, and private forest organizations are now using airplanes, power launches, railway speeders, automobile trucks, and portable gasoline pumps, besides the old reliable horses, spades, hoes, and wet sacks, in their protective work, and are calling men out to danger points by means of telephones, heliographs, and other signalling apparatus.

## Empire's Largest Landowner.

The new Australian knight, Sir Sidney Kidman, is a self-made man, and not only a public benefactor but the largest landholder in the Empire. He controls over 32,000,000 acres, which carry about a quarter of a million cattle and many thousand horses.

## In An Antarctic Crevasse

Dangling helplessly for hours over a bottomless pit of ice while his arms and legs gradually froze—that was the experience of John Lachlan Cope, surgeon and biologist to the Ross party of the Shackleton Antarctic expedition.

Dr. Cope, who is one of England's most experienced Antarctic explorers, had been leading three men over a dangerous glacier and had failed to notice a narrow crevasse that was bridged with snow. Suddenly he felt the snow give way and fell headlong through space. But twenty feet below the edge the sledge harness, which he had fastened round his chest and shoulders, caught and held him suspended. Fortunately his companions saw him fall and immediately made the sledge ropes fast.

Cope looked round him. The crevasse widened downward until its sides disappeared from view, and below that—darkness and illimitable depths!

"Are you all right?" came a voice.  
"Yes, but I can't get up; I'm hung here."  
"Hang on then!" shouted the man above. "We'll make a rope ladder." With that he disappeared.

It grew colder and colder in the icy crevasse. Cope's mitts fell off, and he watched them drop, striking the ice, until they disappeared. His hands were soon numb, and his body half frozen. Now and then the roar of ice falling down some far distant crevasse broke the silence.

At last the ladder was finished, and the men lowered it. Since Cope's case of touch was completely gone by that time, he had to watch his hands to see that they clutched the rope as he climbed. Swinging backward and forward over the pit, he gradually made his way toward the top. But just before he reached it his harness came off. If he slipped, nothing would save him from being dashed to pieces. He was so numb and exhausted that he could not stretch his legs far enough to reach from one rung to the next.

He called up faintly to the men, and they lowered the harness until he was able to push his legs through it. Half sitting in it and feebly grasping the rope ladder he was hauled the few remaining feet to the surface. He had been hanging over that apparently bottomless pit for three and a half hours.

## Airplane Efficiency in Forest Protection.

To have a small airplane, supposedly big enough only for scouting and forest patrol work, pick up fire-fighters with tools and supplies and transport them quickly to the scene of the fire and thus prevent a conflagration, has been the happy experience of at least two of the forest services with which the Air Board of Canada is cooperating this season. This co-operation has been established by the Air Board with the federal and several of the provincial forest services. The first instance of this prompt action occurred in the Sioux Lookout district of Western Ontario, where the Air Board co-operates with the Ontario Department of Lands and Forests. Here the air patrol discovered a fire under circumstances where speed was necessary if a disastrous fire was to be averted. It was seventy-five miles from the base, and in less than three hours from starting two fire rangers were fighting the fire. They stuck to it and held the fire down for two days, when they were re-inforced by men sent in from another point by canoe, and the fire was finally controlled and extinguished. The canoe men had paddled a day and a half to get to the fire. The second case was in Northern Manitoba, where the Air Board is co-operating with the Dominion Forestry Branch. Here a small fire was discovered late in the evening. At daylight next morning the airman and two forest officers were in the air, arriving at the fire at 4.30 a.m. The three started the fight immediately and by noon the fire was dead out. The Forestry Branch inspector for Manitoba praises the keenness of the airman in their work and records the excellent co-operation between the two services. The present season will do much to determine the place the airplane is to occupy in forest protection.

## Bits of Canadian News.

A syndicate is being formed with Lord Morris, late Prime Minister of Newfoundland, at its head, to take up the development of Alberta coal resources. The syndicate proposes to acquire a coal mine in Edmonton district and by a special process transform the coal into briquettes. It is expected that a plant will be built shortly and operations commenced.

A co-operative marketing scheme for the disposal of potatoes similar to that already in force in Michigan and Minnesota, will be tried out this year by Alberta farmers, according to J. H. Hare, commissioner of marketing for the Alberta Department of Agriculture. The scheme will involve the establishment of a grading station at which all potatoes will be graded for shipment. Inspection will be given at the other end, potatoes going through in such cases subject to rejection.

About twenty-five tons of oil drilling machinery left Peace River recently on board the steamer D. A. Thomas for the Fort Norman oil fields. This machinery is being shipped by the Canada-United States Oil Refining Corporation of Chicago, which company has already sent a large consignment of machinery to these northern fields for the development of their holdings there.

The value of bacon exports from Canada during 1920 was \$34,000,000. An active campaign is being conducted by the Dominion Department of Agriculture in co-operation with the provincial departments to increase trade and incidentally to maintain the quality of Canadian bacon, which years ago procured for it a steady market in Great Britain.

A gold discovery has been reported to the Ontario Department of Mines by A. G. Burrows. It is located near Godreau, Ontario, a short distance north of Lake Superior. A number of assays have been made giving a gold value at the rate of \$31.20 a ton and quartz at \$48.80 a ton.

Efforts of the Department of Agriculture to improve the varieties of fruits and vegetables grown in Canada are meeting with considerable success, officials of the department state. Special attention is being paid to the cultivation of apples, plums and other fruits. Experiments have also been conducted for several years with potatoes, tomatoes and lettuce in an endeavor to produce a strain which would ripen faster, produce a larger yield, and be of better quality than the ordinary variety.

According to figures published by the External Trade Division of the Dominion Bureau of Statistics, Canada's trade with the United States is reaching a more normal level. In 1920 goods imported from the United States were valued at \$660,509,487, while exports only amounted to \$488,974,570, with a resultant balance of \$371,534,917 in favor of the United States. In 1921, for the year ended June 30, Canada imported goods from the United States with a value of \$766,393,077, and exported goods valued at \$501,933,266, reducing the trade balance in favor of the United States for the year to \$264,459,811.

## Forest Protection Advice From the Clouds.

Even old woodsmen, who might be supposed to be prejudiced in the opposite direction, testify that the printed notice, the fire warning bill or poster, is the most important weapon with which to fight forest fires. Keeping in close touch with every part of its vast field the Forestry branch of the Department of the Interior now prints a completely different set of posters each season, so as to keep the warnings as attractive and striking as possible. This season two new forms of notice have been added, the first is composed of stickers to be placed on the wind-shields of automobiles entering Dominion forests and the other of slips of tiny hand bills to be spread by the men of the forestry air patrol as they fly over camps and picnic parties. One of these latter bears the words "Citizens! Help the Forest Service to protect your property by being careful with fire in the woods. Co-operative Aerial Patrol—Forestry Branch Air Board."

## The Cleanest Town.

Which town is the cleanest in the world? We know several that are not. The cleanest town in the world is said to be Brock, in Holland. It has been famous for its cleanliness from time immemorial. The yards and streets are paved with polished stones, intermingled with bricks of various colors.

What is beautiful is good, and what is good will soon be beautiful.—Sap- pho.

## Testing Canadian Woods.

The announcement has recently been made that the Board of Works for the United Kingdom has added certain Canadian timbers to the list of those used by the department. That the qualities of Canadian woods might be understood and the timbers thereby put to the best possible use, was the object of the Minister of the Interior, Canada, in establishing the Forest Products Laboratories in connection with the Forestry Branch. The laboratories are making mechanical and physical tests of Canadian woods and the results are published from time to time as the investigation of each species or group is completed. The information obtained is proving of great value not only to timber users in Great Britain and other countries, but also to Canadian engineers, architects and builders. Beginning with the more important species the investigation is to proceed until all the woods having any commercial value are tested. Bulletins 59 and 60, the two so far issued on this subject, may be had free upon application to the Director of Forestry, Ottawa.

A Scotch inheritance.

An American professor who was studying at Edinburgh University roomed at the home of a thrifty Scotch family. Each morning Mrs. MacAngus would come in with an aggarred dust-pan and a well-worn broom and sweep the floor, stooping about the place in back-breaking discomfort.

"I should think you would find it easier to use a broom," the professor ventured one morning.

"No doot, no doot," agreed Mrs. MacAngus, "but I has the brush and I have not the broom, my mither having left the broom to the eldest child. The youngest braethar got naething but a turkey wing."

Drive yourself, not others.