

WHAT OCEAN SIGNALS MEAN

Ships at sea have a "language" of their own when they wish to converse with or signal to one another. Nearly all big steamers carry a wireless installation, but, in addition, every vessel of this type is provided with a steam whistle or siren, a mechanically operated fog horn, and a bell.

Sailing ships are obliged to have both a mechanical fog horn and a bell before they are allowed to leave port. When ships pass one another at sea certain ceremonies are observed. Thus a merchant vessel meeting a warship is expected to dip her flag in salute, a courtesy acknowledged by the naval commander in a similar manner. Liners are generally saluted by "tramps," while when one liner meets another the junior captain dips his house flag first.

If the weather is foggy and visibility is poor, it is obvious that ships on their way across the high seas must talk—and talk loudly. So long as a steamer is moving forward the law of the ocean demands that she shall send out a long blast of her siren every two minutes to give notice of her presence in foggy or heavy weather. Should she stop her engines the long blast must cease, being substituted by two good whistles every two minutes with an interval of one second between each. The siren is stopped altogether immediately the anchor is dropped, and the presence of a moored steamer is known by the clamor of her bell once a minute.

Every vessel that is propelled mechanically is supposed to give way to the sailing ship, and the latter a special code of signals to indicate her presence. One blast from a fog horn every minute means that a sailing vessel is moving with the wind to port (her left side). Two blasts minute indicate that the wind is on the other beam.

When fishing trawlers have lights one above the other, attached to their masts while tugs towing other crafts carry two lights in the same way. A ship at anchor puts out her side lights takes down her masthead light, and substitutes a "riding light" which swings from about three quarter way up the foremast.

NEW METAL WITH REMARKABLE QUALITIES MAY REVOLUTIONIZE THE MECHANICAL WORLD

A discovery that promises to bring fame to its inventor and may revolutionize the mechanical world, has been made by Harry McClane, 32, chemist, employed at the University of Kentucky as a plumber.

The discovery is a new kind of metal called Mac-Lite, after the inventor, and was made after nine years of constant research, he says. The formula, which is known only to McClane, is three times as strong as bronze, cast iron, brass and milled steel, and can be used at much saving in the place of any of these metals.

Materials used in the new product are sufficiently abundant to warrant the manufacture of Mac-Lite in large quantities.

McClane perfected his invention last April while at the University of Kentucky, where he came to do research work in mining and metallurgy.

Although it is one-third as heavy as bronze, brass or cast iron, and only two points heavier than aluminum, Mac-Lite is strong, requiring a pressure of more than 100,000 pounds to the square inch to crush it. The metal closely resembles aluminum in appearance and under a buffer wheel takes on the appearance of silver.

It will not rust or corrode. Earth acids have no effect on it. In testing his new metal, McClane made a bearing and installed it in machinery that is being used in St. Louis. The bearing ran more than six months before it had to be oiled, he said.

Chemists all over the country have tried unsuccessfully to analyze the metal and learn its ingredients, according to McClane.

MONUMENTS OF INDIANS

Anthropology is a formidable name, but an interesting science. Briefly, it may be accepted as meaning the study of man in general. To that study no race has provided a more interesting problem than the North American Indian, whose origin is more or less shrouded in mystery.

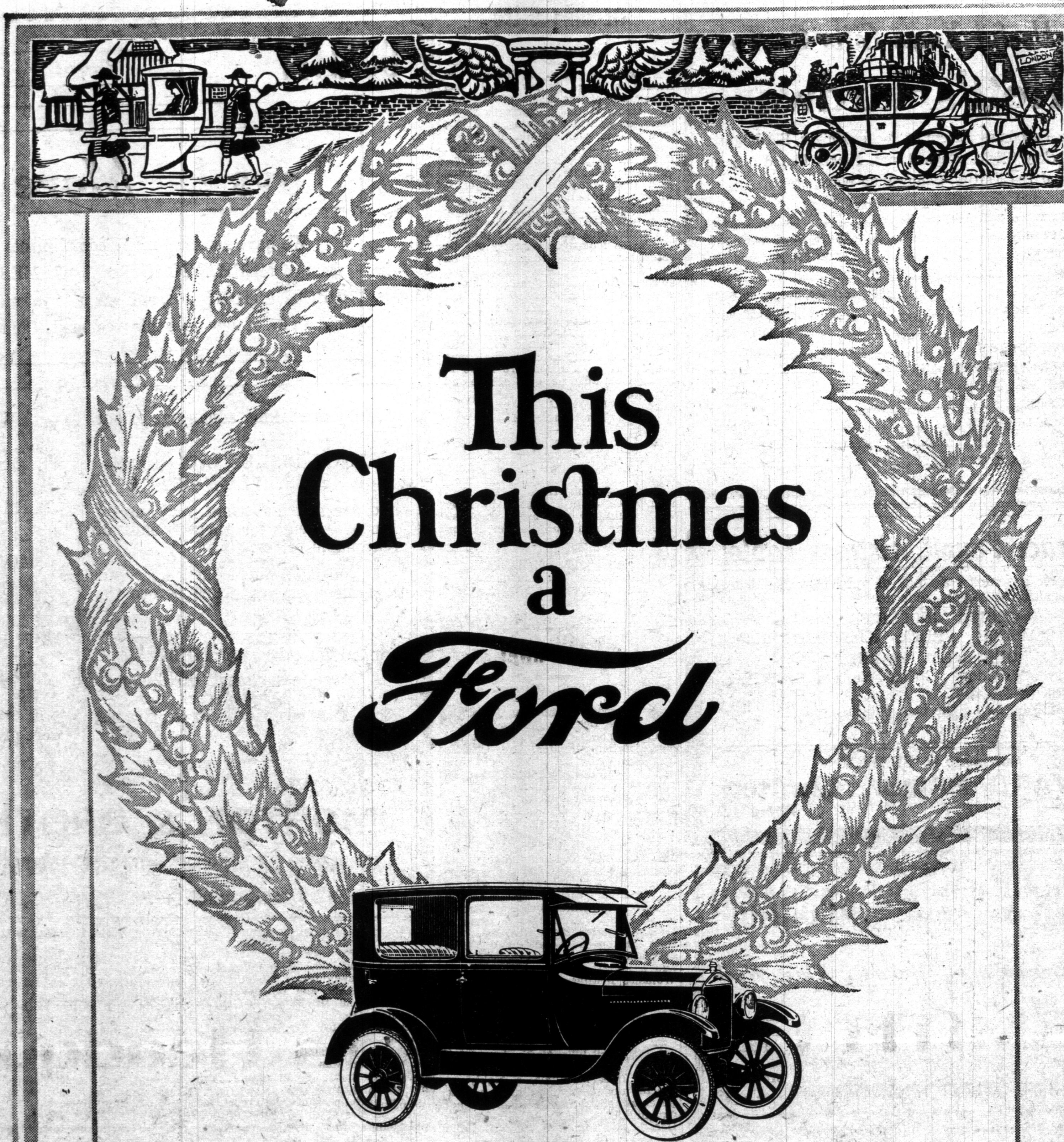
Consider, for instance, the totem poles of the Indians of British Columbia. What relationship exists between these curious monuments to valorous red men and the gaudy banners of the Chinese, or the crude carved obelisks of the Egyptians? Perhaps none, but it is a fact that these totem poles constitute a distinct type of art which has much symmetry of color and design, though first appearances may appear to be to the contrary.

Totem poles are not the vague creations of idle men. They are carefully thought out and executed records of deeds well done and they provide an open book for those who have the knowledge to read.

Nowhere are finer examples of these totem poles to be found than in some of the Indian villages on the route of the Canadian National Railways between Jasper and Prince Rupert. At Jasper there is a fine specimen, brought from the Queen Charlotte Islands and erected intact beside the Jasper station. But the greatest collection is located at Kitwanga, on the Skeena River. This is one of the show places of northern British Columbia and trains stop to allow passengers to view the poles and it is safe to say that, next to Niagara Falls, this little village is almost the most photographed spot in Canada. That in itself tells of the appeal these poles make to the imagination of the tourist. Another proof is the fact that it is almost always impossible to get the train out of the village on time, because there are always some passengers who desire to linger longer with these striking monuments of an ancient race.

Illustrated literature issued by the Canadian National Railways may be had by writing the General Passenger Department, at Moncton, N. B.

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THE RICHES OF CANADA

Much has been said and written about the natural resources of Canada says the Toronto Globe, but no one has as yet attempted more than to guess at their extent. This country has been called the bread basket of the Empire, with millions of acres of fertile land still awaiting the touch of the plow—agriculture the backbone of its wealth. It has been claimed that its fisheries could be made to pay its national debt. Six hundred million acres of its surface—one quarter of the whole country—has been estimated by the Department of the Interior to be covered with forest growth, and one quarter of this with heavy timber of marketable size. Many millions of dollars are yielded annually from furs. Its coal supply is said to be equal to one-sixth of that of the entire world. Its known supply of iron is placed at 60,000,000 tons. Its water power has been estimated at something over 18,000,000 horse power ordinary minimum flow, and more than 32,000,000 dependable horse power for six months in the year. It has old and natural gas in quantities yet unknown. Its mineral resources are regarded to those who should know as surpassing all others.

There are said to be 200,000,000 acres of land available for agriculture in the Prairie Provinces and a comparatively small part of it under cultivation. Yet Canada's wheat production approaches that of the United States. While the forest resources are not known, the Dominion Forestry Branch has made an estimate of the country's supply of saw timber at more than five hundred thousand million feet, board measure, and pulpwood at thirteen hundred million cords. What the vast coal reserves and water power

supply would mean if linked up with production would almost stagger the imagination. Dr. Thomas T. Read of the Federal Bureau of Mines at Washington, has taken as a basis of estimate one horsepower equal to the energy output of ten average workmen, and the energy expended by a coal miner in an eight hour day as about equal to that available from two pounds of coal. This would make the energy supply in Canada's water power and coal mines, if stated in terms of man power, reach prodigious figures.

And this, Dr. Read says, is the real basis of a nation's producing power. This should be almost enough to satisfy the expectation of an ambitious nation, but Dr. C. V. Corless, in addressing the Canadian Institute of Mining and Metallurgy in 1922, made the statement that 85 per cent of the surface of this country contains mineral treasure of inestimable value. A report of the Royal Commission on the Mineral Resources of Ontario pointed out that the pre Cambrian Laurentian shield, which yields mineral wealth, represents over 2,000,000 square miles. Only the margin of this has been scratched, and it has produced ore which places Canada in the foremost rank as a mineral producing country. What will be produced as the area is further developed remains inconceivable. Besides gold, silver, copper, iron, zinc, platinum and other metals, Canada produces 85 per cent of the world's supply of nickel. It also produces 83 per cent of the world's supply of asbestos, and numerous other non metallic minerals.

Now Northern Ontario is apparently to add to its wealth by the discovery of the world's richest deposit of china clay and silica sand. And half the story has not been told.

WAS FOUNDED ON MISFORTUNE

Another interesting story of the fragrant weed comes from the old Confederacy of the South. During the American Civil War a man named Green was manufacturing smoking tobacco in a small way at Durham, North Carolina. In the later stages of the war a Confederate force, retreating before the armies of the North, secured some of the tobacco and the tired soldiers were greatly pleased with its quality. Northern troops, coming afterwards sacked the place, and were equally pleased with their plunder. The proprietor thought himself ruined by the stealing of his stock, but the event laid the foundation of fortune. After the war the scattered soldiers of the blue and grey from all over the restored Union sent back orders for some of the blend that had soothed them on their march. That was the foundation of the fortune made in Durham tobacco and much of the fortune so created is now being utilized in establishing at Durham what will be one of the greatest universities of the United States.

CAFE-PARLOR CAR GIVES GOOD SERVICE

The Cafe-Parlor Car, operating on Canadian National Railways' Train No. 14, leaving Saint John, N. B. at 1:00 p. m., for Moncton, and returning from Moncton to Saint John on train No. 43, leaving Moncton at 4:50 p. m., daily except Sunday, is giving excellent service and is much in favour with many travellers. An excellent a-la-carte menu of pleasing variety is furnished to patrons and the food is finely cooked and served.

JUDGED BY HIS MARKS

On the naked right arm of a man who dropped dead in a city street one day last summer, was found tattooed the picture of a lion, with overhanging willows, and the words inscribed below, "To the Memory of My Mother." The man had nothing about his person to identify him, and not a cent of money in the pockets of his shabby clothes. Laid out in a station house the body—of which the newspapers had given careful description—remained for a day, to be buried on the morrow, if unclaimed, in the Potter's Field. A kind hearted merchant came and looked at the poor unknown.

"Who this man was, or what he was, none can tell," he said, "but he once had a mother whom he loved. So had I. Give him a decent burial and send the bill to me."

The body of the nameless stranger was honored with a handsome coffin, an undertaker's service, a religious ceremony and a cemetery burial, because of one mark that made him a brother to all human hearts. Much the same cause that here secured kindness to the unknown dead will make friends for the unknown living. The young man whose pure life is written in his demeanor and look and speech, and to whom after the first interview his future employer has said, in actions though not in deed, "I do not know you, but I see in you that which commands my sympathy and confidence," may never be told that it was not his own flattering letters of introduction that gave him the place; but experience may teach him to judge a stranger by his unconscious tokens as well as by his written certificate.

No one knows exactly how much of what he is betrays itself in his appearance, and the innocent will never be anxious to know. On the other hand perhaps one can never tell exactly what trait or expression in a new person first enlisted one's good opinion of him. But the mark is there.

"All faces tell the truth," says an old author, and of most people's outer selves something more than the face plays telltale to the heart. Let an unworthy young man, seeking a position, try to conceal the evidence of his vicious habits, and he will soon realize this to his confusion. However safe in his own conceit, he weakens when "his neighbor searcheth him."

Style is the dress of thoughts.

