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**A TALE OF ADVENTURE
FROM THE STARK NORTH**

**Marooned in the Sub-Arctic While Blizzards Rage, a Party
of Airplane Prospectors Send by Radio a Vivid
Account of Hazards and Tragedy**

The interest taken in the United States in connection with the opening of our great Northland is exemplified in the following article appearing in the New York Times. We reproduce it as an unvarnished tale of the stark realities that go hand-in-hand with the search for mineral wealth.

Prospecting for airplane for minerals in the frozen North country of Canada, Arthur Lowe, now in charge of the expedition, gives for the first time a connected account of the tragic adventures and trials which winter forced on the prospectors when their schooner struck a shoal and a plane had crashed into a lake. Wireless installation salvaged from the schooner enabled Mr. Lowe to communicate his dramatic story direct to the New York Times radio station.

By ARTHUR LOWE
Baker Lake, N.W.T.

Wireless to the New York Times, according to explorers who have traveled the Canadian Arctic, it is a land of rich promise. It may be, but after living for weeks in an igloo, a scant 100 miles from the Arctic Circle, I have formed the opinion that it is also an inhospitable and forlorn land, a land of blizzards, with drifting snow as impenetrable as a London fog, and of cold so intense that it blisters like boiling water. For us, too, it has been a land of tragedy.

In the past year there has been a determined effort to crack open the North and to discover those rich mineral deposits, stories of which have been current since the days of Frontenac. But the business of discovery is proving difficult. The writer is attached to the Northern Aerial Minerals Expedition, which is attacking the North by plane, canoe and schooner—and victory, so far, is with the North.

The schooner was wrecked in an uncharted channel; one of the planes caked with ice crashed as the pilot attempted to take off from the troubled waters of Hudson Bay; two prospectors were lost in a September blizzard, one never to return, the other crippled for life. Together with others I was marooned for nearly a month in the barrens without fuel and with only a limited supply of food.

Prospectors Moved by Plane
But in spite of difficulties, various caches have been established in the Arctic and Sub-Arctic. Invaluable data have been obtained, and those of us wintering here are confident that this year the North will surrender and reveal some of its long-guarded secrets.

Our expedition was sponsored by J. E. Hammett, a Canadian mine operator, who won both fame and fortune breaking new trails. A fishing schooner, the Patrick and Michael, was bought and equipped for service. The expedition was placed under the command of Colonel J. E. Leckie, soldier and explorer; eight prospectors were embarked, and in July we sailed from St. John, N.B., for the Sub-Arctic.

The prospectors were landed in pairs at various points on the east coast of Hudson Bay. Each party got a canoe and the necessary food and equipment to last three months. A headquarters was established at Richmond Gulf and from this base a six-passenger seaplane operating from a plane with a maximum cruising range of 1,000 miles, was employed in moving the prospectors from one area to another, so that little time was wasted in a country where the geological formation was considered unfavorable.

While we were establishing our caches on the eastern coast of Hudson Bay there was activity in the West, for it is in the West our hopes are centered. Two airplanes, carrying five passengers with food and equipment, left La Pas in Northern Manitoba for one of the longest Sub-Arctic flights ever made. The planes headed across country to Churchill, from there they flew north along the coast of Hudson Bay to Chesterfield Inlet and then across the barren lands to Baker Lake—total flight of nearly 1,500 miles over unexplored territory. For the greater part of the flight the compasses carried in the planes could not be used owing to the nearness of the magnetic pole.

From Baker Lake the planes carried the prospectors to areas in the North reported to be rich in minerals. Those of us on the Patrick and Michael, the base ship, made slow progress. For five days we were aground on a shoal in Hudson Bay, a gale which lasted three days blew us 100 miles off our course, ice fields slowed up our progress, and it was not until September that we finally reached the mouth of Chesterfield Inlet. At that point I left the ship and proceeded by plane to Baker Lake to take charge of operations in that area.

In the early days of September we flew hundreds of miles, placing prospectors, taking them provisions or moving them to new and more favorable areas. Toward the middle of the month concern developed at the non-arrival of the schooner, and accordingly a flight was made eastward to locate it. We found it hard and fast on a shoal at the entrance to Baker Lake. It was listed over at a precarious angle and seemed in imminent danger of slipping into deep water and sinking. Below us we could see the crew at work on rafts trying to salvage the cargo, and away on the shore an untidy dump consisting of gasoline drums, packing cases and lumber.

Ship Piled on a Rock
It seemed that the vessel had been proceeding slowly through the channel when it touched a shoal. In an effort to clear it the captain ordered full speed ahead and the ship plied up onto the rock. Too late, soundings were taken. Fortunately there was a deserted shack about two miles from the scene of the wreck which had been erected years previously by the mounted police. In this shack the crew found temporary quarters. But it became obvious that unless they could be evacuated quickly many would perish during the winter, for the schooner could not be salvaged and the men were not provided with winter clothing.

Finally a whale boat was outfitted for the 150-mile journey to the fur trading post at Chesterfield, and the crew left in this under the command of William Robertson, the mate. September proved a tragic month for the prospectors. Snow fell heavily and was accompanied by biting winds from the northwest. It became imperative that the men should be brought in with all speed, and since the wreck of the schooner prevented us from building a headquarters, they should be taken out to civilization without delay.

Search for Lost Gold Hunters
A wind started from the northwest and blew steadily for a week, sometimes with a velocity of eighty miles an hour. It was accompanied by snow flurries and driving mist which made any attempt at flying suicidal. During the week the small lakes froze over and we were faced with the knowledge that unless we could get the men in before the larger lakes froze it would be months before help could be sent to them, as our planes could not be fitted with skis. The prospectors were scattered hundreds of miles apart across the barrens with food and fuel sufficient for only a few weeks at best—and the mercury was already flirting with zero.

On the seventh day of the gale the situation looked desperate and we decided to wait no longer. We took off from the lake and headed north, flying dangerously low. Our first concern was to pick up J. Rutherford and T. Cowans, two veterans of the Porcupine, because we knew their supplies must be getting low. With difficulty we located their tent pitched on the shores of a large lake, and succeeded in landing near it. The tent was drifted high with snow; there were no signs of life, no sound except the whistle of the wind through the struts of the plane. I crawled along an ice-covered pontoon, waded ashore, pushed aside the frozen flap of the tent and crawled inside. There was a note nailed to a box:

"Walking back; grub giving out." We flew on to the next camp. The prospectors there were more fortunate, having shot a baribou on the day before our coming. But they had run desperately short of fuel and their tent pole had been whittled down until

WHAT, SNOW IN AFRICA? CANADA IS CHALLENGED
It is not general knowledge the Arabs in Africa have a ski club, but they have, and this Arab is a club member of Shirra, near the Atlas mountains.



An Arabian Knight on Skis

it was no thicker than a cane. They were surprised to see us.

"Didn't think they could make it in the weather," they said.

We succeeded in reaching all prospectors in the field except Rutherford and Cowans. Day after day we searched for them from the air, but without success. They seemed to have disappeared completely into the silent snow-covered hills. William Storr, an experiment prospecter, and two Eskimos were taken to the deserted camp by plane, and they started to back-track the missing men. It was not long before they discovered the tragedy which had overtaken the two prospectors. There came a place where the tracks of only one man were left to follow.

A Tragedy of the Trail
But it was unnecessary for Storr to continue his quest, because after being seven days on the trail with neither food nor covering, Cowans staggered into camp. He managed to tell us that Rutherford had died of exposure four days previously, and then he collapsed. An idea of his desperate struggle for life can be obtained from his diary, which he gave me afterward and from which I quote excerpts:

"Sept. 22. Pulled out after day light. Joe left Webley revolver behind two boulders. Have not had glimpse of sun since we left three



BIZARRE NEW ENSEMBLE
A striking beach ensemble of robe, beach pyjamas and bandana to match, in which Mrs. Howard Street of Philadelphia recently appeared at Palm Beach, Florida.

days ago and compass no use. Decided to leave rifle behind.

"Sept. 23. Have to slide down creek-beds. Nobody saying much. Traveled maybe five miles, but going hard, owing to soft snow. Very stormy and cold, nearly unbearable.

"Sept. 24. Started out across muskeg, snow on top, water underneath. Made about 600 yards, winds and storm made it too hard to travel. Dropped down behind rock. Looked back and could not see Joe. Went back and found him lying on his side. Shook him, but he was dead. Heard plane, but could not see it, owing to storm."

Cowan's condition was desperate when he arrived, and it is amazing that he should have traveled those last few miles. The mukluks (seal-skin boots) were cut from his blackened feet and first aid was rendered, but we knew that the only chance of saving his life was to rush him to a hospital—1,500 miles away.

Captain Mat Berry, pilot of our plane, undertook to take him south at once. The machine took off from Baker Lake in zero weather; the pontoons and wings were thick with ice, and icicles festooned the struts. But in spite of difficulties greater than those which attend a transatlantic flight Berry succeeded in flying his plane to Churchill Harbor he refueled. He attempted to take off without delay, but there was a heavy sea running and this, combined with the tremendous strain the plane had already undergone, brought disaster.

Amphibian Plane Sinks
The pontoons of the machine collapsed as it was lifting from the water. The few watchers on shore saw the plane tilt forward, right itself and then begin to founder. A boat succeeded in reaching the wreck and in saving the passengers, but by such a narrow margin that the plane could be saved. A wireless message was sent to La Pas. A second plane was rushed in at once, and a few hours later Cowans was in the hospital.

During Berry's trip south we were having our difficulties in the north. It was essential that our wireless equipment should be salvaged from the schooner, because to effect this S. C. Cusack, the operator, J. D. Donovan and the writer remained near the wreck. The work was accomplished and the greater part of the equipment moved to our base, when the lake partially froze over. Our only means of communication had been by boat—and the boat was frozen solid in a foot of ice.

Meantime we were practically without fuel, water or food, and temperatures were running as low as twenty below zero. But for once we had a lucky break. After three weeks of chilly waiting a strong wind blew up from the east. The ice was carried out into the lake and our boat was freed. We succeeded in finding channels between the floe ice to the open lake and thence to our base.

When you get to Washington, it's too late to learn.—Mayor Walker.

before wireless communication was established and we learned that the Hudson Bay Company had succeeded in getting a small schooner to Chesterfield from Repulse Bay. In this schooner the crew was taken to Churchill, from where they made their way through the bush to the end of steel.

Work this winter has been difficult. Planes were unable to come north owing to the intense cold and heavy drifts. Instead of speeding through the air at a hundred miles an hour we have plodded over the hard packed snow from igloo to igloo. Accompanied by Shevekatah, a famous Eskimo hunter, I am leaving in the course of the next few days to make my way to the end of steel—700 miles away.

**Vanishing Isle
First Seen Off
Trinidad in 1911**

Recent Rise and Disappearance of Volcanic Area Recalls Earlier Exploration

**Soon Lost in Heavy Seas
Emergency Accompanied by
Terrific Gas Explosion**

Port-of-Spain, Trinidad.—The recent appearance of a volcanic mud island off the island of Chatham and its sudden disappearance a few days later recall the "first night" performance of this remarkable submarine volcano on Nov. 4, 1911, the mud island having then appeared, accompanied by terrific explosions.

That emergence of the island was during the governorship of the late Sir George Le Hunte, and a party, including the Governor, the Chief Justice and other officials from Trinidad went by steamer to explore it. Great care had to be exercised in making a landing, as it was found that the crest of mud was very thin and treacherous. The mud under the surface was still very hot.

The Governor and his party explored the entire island, which was of whale-back formation. The party remained for more than an hour. The island was fourteen miles from Icaos and two miles from Chatham. Two craters were discovered on its summit near the northern extremity.

The total area of the island was about three acres, and the heavy seas washed it away in the course of a few weeks.

When a few weeks ago the second appearance of this volcanic island occurred, parties steamed to the spot where the explosions took place, but no attempt was made to land, as the island was slowly disappearing under the pressure of the heavy seas.

**The Judgment
of a Horse**

By BERTRAM E. HALL
In Our Dumb Animals

Nowhere south of the Arctic circle does the death-dealing blizzard descend more swiftly and unexpectedly than upon the plains of Wyoming. The high altitude of the state, its sparse population, the vast, treeless regions and the intense cold that almost invariably accompanies a severe blizzard, make the fact of getting lost in a Wyoming snowstorm a serious matter, even in this day of twentieth century progress.

One sunny morning a few winters ago a Wyoming rancher sent three of his men with a two-horse team to get a load of coal from the railroad yards, ten miles distant. During the return trip the sun darkened, the north wind quickened until it stung the face, and hard, needle-like particles of snow began to hiss against the clothing of the men. By the time they were three miles from home the storm had increased to a blinding blizzard that shut out completely the world in which they lived. Desperately the men struggled to unhitch the horses from the heavily loaded wagon and set out on foot leading the faithful animals behind them. Thirty minutes later, after making a complete circle, they saw the abandoned wagon loom up before them. They tried again and again returned to the wagon. (A third time they tried and a third time returned to the wagon. The situation was indeed desperate.)

The storm showed no sign of lessening, and deep concern was written on the face of the three men. Suddenly one of the men spoke: "See here, I don't know the way home, but I do know horses. We have been trying to lead the horses home. I suggest that we let them lead us home."

So the driver gave the animals a free rein and the three men tramped doggedly on behind. Thirty minutes passed and still the time they did not return to the wagon. Another ten minutes dragged by and all at once the dim, ghost-like forms of ranch buildings appeared before them. A few minutes later the horses were in the stalls and three thankful men were within the warm shelter of a ranch kitchen telling their story to eager listeners. Once more the intelligence of the horse had been demonstrated.

Empire Marketing Board

London Times Trade Supplement: In the early days of the Empire Marketing Board it was pointed out here that, however well conceived its plans might be, ultimately its publicity campaign would have to be judged by the same standard as that applied to other advertisements—the measure of success attained in "selling the goods." It is therefore with considerable satisfaction that we learn on the authority of the board that imports of Empire produce into this country during the last two years have broken all previous records for many commodities. The board's publicity scheme has been largely concerned with the increase of sales of produce, and, therefore, is perfectly legitimate to regard the increase in imports as evidence of the success of its efforts.



She: You go to college, don't you?
He: No. This suit looks this way, because I slept in it last night.

As soon as the dirigibles are equipped to carry airplanes, as is now planned by the United States Navy, instead of "hitch your wagon to a star," it will be "check your airplane to a dirigible."

The old-time slate of personally conducted political organizations now gives some indication of following the old-fashioned school into oblivion.

**New Tubes Bring
Sets Up To Date**

How Modern Detectors and Amplifiers Can Be Used in Old Receivers to Improve Reception

Modern tubes in place of old ones will do a great deal to improve tonal quality, volume, and sensitivity that aids in reception of distant stations a set equipped with the old type of tube with a metal base, as used three or four years ago, can be vastly improved with new tubes. Engineers contend that after tubes are in use almost daily for a year their efficiency is greatly reduced. Tubes need not burn out to be worn out.

To begin with, consider the old type C-301 tube which has been superseded by the CX-301A tube. The operating characteristics of these two tubes are similar with the exception that the CX-301A is much more efficient and has a higher amplification factor. The plate voltages and grid bias voltages required for both types of tubes are practically the same so that from the standpoint of their use they can be used interchangeably in circuits designed for either of the tubes. When the CX-301A is substituted for the C-301 tube in neutralized circuit receivers the neutralization values must be readjusted.

However, the main point of difference lies in the filament characteristics. Whereas the C-301 tube caused a current drain of one ampere at five volts, the CX-301A tube causes a current drain of .25 ampere at five volts. This means that the value of the series resistor (rheostat, or fixed resistor) in the filament circuit required to reduce the six volts supplied by the storage battery to the five volts required by the tube filament will be different. For the C-301 tube the resistance of the resistor required to produce a drop of one volt with one ampere flowing in the circuit was one ohm. A 60hm rheostat was therefore used to provide a sufficient range for control. In the case of the 301A, the value of the resistor required to produce a drop of one volt with a current of .25 ampere in the circuit is four ohms and a resistor of 20 ohms is recommended to obtain suitable control down below five volts.

NEW RHEOSTAT NEEDED

Before replacing a C-301 tube with a CX-301A tube in old receivers, therefore, care must be taken to replace the old rheostat with one of a suitable size. Where more than one tube is controlled by a single rheostat or resistor, a resistor should be used in the filament circuit. Two 301A tubes for instance connected in parallel and drawing together .5 ampere require a resistance of 2 ohms to reduce the six volt to five and for this purpose a 10-ohm rheostat will give full control.

When fixed resistors are used, the value of the resistor should be as nearly as possible the correct value required, four ohms for one 301A tube, two ohms for two 301A tubes, etc.

In substituting a 301A tube in place of a C-300 soft detector tube, in addition to changing the value of the filament resistor, the grid return should be connected to the positive filament lead instead of to the negative filament lead required for use with the C-300, or 300A.

In substituting a 112A or 371A tube in place of a C-301 or 301A tube in the last audi stage of a receiver, the plate and grid bias voltages should be changed to the recommended values for maximum results in addition to the filament changes necessary when substituting an "A" tube in place of a C-301 tube.

CHANGES FOR POWER TUBES
In substituting a 112A for a 112 only the value of the filament resistor need be changed. The 112 draws .5 ampere at five volts and requires a fixed resistor of 2 ohms or a rheostat of 6 ohms while the 112A draws .25 ampere and therefore requires a fixed resistor of 4 ohms or a rheostat of 20 ohms. The grid bias and plate voltage characteristics are the same and the tubes can be used interchangeably in that respect.

The same changes in filament circuit characteristics are required when substituting a 371A in place of a 371 tube in storage battery or "A" eliminator circuits.

When 112A or 371A tubes are substituted in place of 112 and 371 tubes, respectively, in A. C. receivers in which the filament of the tubes are heated from the filament windings of a power transformer, no changes are necessary since the tubes will automatically draw the proper amount of current from the windings.

When CX-340 high mu tubes are substituted in place of 301A tubes in resistance-coupled amplifiers, best results can only be obtained if the values of plate and grid resistors are changed to .25 megohm for the plate resistors and 2 megohms for the grid resistors with coupling capacities of .006 mfd. The plate voltages applied to the "B plus" terminals of the plate resistors should be at least 135 volts and preferably 180 volts and the grid bias should be reduced to not more than 1.5 for 135 volts on the plate or 3 volts for 180 volts on the plate.

The CX-320 full wave rectifier tube superseded the old CX-315 full wave rectifier tube and may be substituted in place of the CX-315 without any changes in equipment or wiring.

The CX-381 half-wave rectifier tube superseded the old CX-16B half-wave rectifier and may be substituted in its place without any changes in wiring.

S'MATTER POP

