

Making of Aviators

ARTICLE NO. III

By E. H. Ackland

"Contact Patrols," the Airman's Most Dangerous Work.

The part played by our low flying machines during the great German offensive on the Somme will some day be fully brought to light. These machines, originally organized for attacking purposes, played a heroic part in helping to stem the tide of attacking Germans, both by machine gun fire and also by bomb dropping. These machines do what is known as "contact patrol" work, flying at a height of from 100 to 1,000 feet during the attack, their prime use being to afford a means of communication between the attacking troops, who are cut off by the barrage fire always put up behind them, from their supporting troops in the rear. The planes must consequently fly in the wall of fire put up by our own artillery and the Germans, in addition they are subjected to a terrible rifle and machine gun fire from the ground.

The attacking troops may run short of bombs or perhaps be held up by machine gun fire. If such is the case they signal to the aeroplane above by a paneau, which is a little white flapping arrangement, or by a high power "Aladia" lamp. The first squadron to do contact patrols on the Somme was the "writer's," which used the most perfect observation planes of that period "Morane-Parasols," a French two-seater capable of nearly 100 miles an hour. They derive their name of parasols from the fact that the wings are about two feet above the body of the plane, thereby giving an unobstructed view. Their only drawback is that they are very delicate machines to fly. They cannot be lopped, owing to their construction being too weak when speeded down.

A lecturer at the Toronto School of Aeronautics, recently made the statement that the life of a Contact Patrol airman in France in actual war flying time was somewhat less than seven hours. He was not much in error, as the height at which they fly makes them a target for every type of gun, from rifles and machine

guns to light field artillery, the most dangerous being the "box barrages" that the enemy put around them. To escape, the machine must go through one of the walls of the "box" which is pretty risky work. Perhaps the best plan is to spot the machine-guns and give them a dose of their own medicine, for Fritz has a decided aversion to being killed from an aeroplane.

While such work is naturally dangerous, it has its compensations, for in no branch of the army has an officer such a chance to make a name for himself, and, more important, to conserve the lives of his countrymen who are fighting below on terra firma.

At various prearranged intervals during the attack the "contact" aeroplane signals by means of a Klaxon horn for what are known as "flares." These are little boxes of red fire, and when they are lighted along the whole line they give the approximate position of our most advanced line. The observer draws the line in on a special map and flies back through the barrage with it to headquarters. All this procedure is actually rehearsed by the attacking troops and the aeroplane concerned before the advance behind the lines, so that there may be no hitch in the final performance. The barrage fire is so terrible that no runner could get a message through, but the plane with its speed accomplishes what is impossible on the ground.

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No. 1 Intercity Ltd.	1:20 p.m.	1:58 p.m.
No. 7 Mail	3:00 p.m.	4:40 p.m.

Going East.

No. 18 Mail	1:40 a.m.	2:17 a.m.
No. 18 Express	3:10 a.m.	3:53 a.m.
No. 4 Mail	11:20 p.m.	11:57 p.m.
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The discovery of a vaccine for curbing and preventing Malta fever, prevalent along the Mediterranean is claimed by a French scientist of high repute.

NEWEST NOTES OF SCIENCE

China has more ducks than all the rest of the world put together. The world's production of cocoa now amounts to more than 250,000 pounds a year.

Natal is building up an industry in the manufacture of starch from sweet potatoes.

A spring wire clip which holds a cup securely on the edge of a plate has been patented.

Government geologists have discovered a large deposit of high grade iron ore in Queensland.

An electric motor has been invented for winding watches where many are to be wound at a time.

The greater part of Chilian coal is so soft that fully 30 per cent. of it is wasted at the mines.

A combination of spirit tube and pendulum enables a new level to be used to measure angles accurately.

Great Britain is raising about 900,000 acres of potatoes this year, about 25 per cent. more than last year.

A sagesbrush plow has been invented that is said to be capable of turning under thickets of brush six feet high.

Electricity obtained from Swedish waterfalls provides about one-half the mechanical power used in that country.

In a new self-inking rubber stamp a "ratchet wheel" moves the ink pad about so that all of its surface is utilized.

The island of Mauritius is singularly free from thunder storms, several years sometimes passing before one occurs.

The sides of the new suitcase fold out flat with the bottom to enable clothing to be packed in it without wrinkling.

Madrid proposes to utilize the water brought to the city by an old canal to produce about 3,000 electrical horse-power.

By turning a crank at one corner a new kitchen cabinet is raised or lowered to the most convenient height for a user.

Applying electric currents to the base of the brain, a Berlin physician has found a way to give sleep to the sleepless.

For oiling automobile springs automatically an inventor has patented a lubricant holding pad to be strapped around them.

Camels imported from Asia have been tried in Australia with fair success for hauling wagons in regions lacking railroads.

Labels have been invented to be attached to bathroom towel racks to designate which towels are intended for guests to use.

Artificial celluloid and ivory can be made by soaking potatoes in water and then in sulphuric acid and subjecting them after drying to pressure.

Two British scientists have decided that the sense of smell is weaker in man than in the lower animals because of the human practice of kissing.

For card playing and lincenon purposes a table has been invented to which four chairs are attached, the whole affair folding flat when not in use.

A three-wheeled cab that a London

cabman invented more than a half century ago still is in use and it is claimed that it never has been overtaken.

The handle of a new screwdriver is provided so that it can be turned at right angles to the shaft to give additional leverage or serve as a hammer.

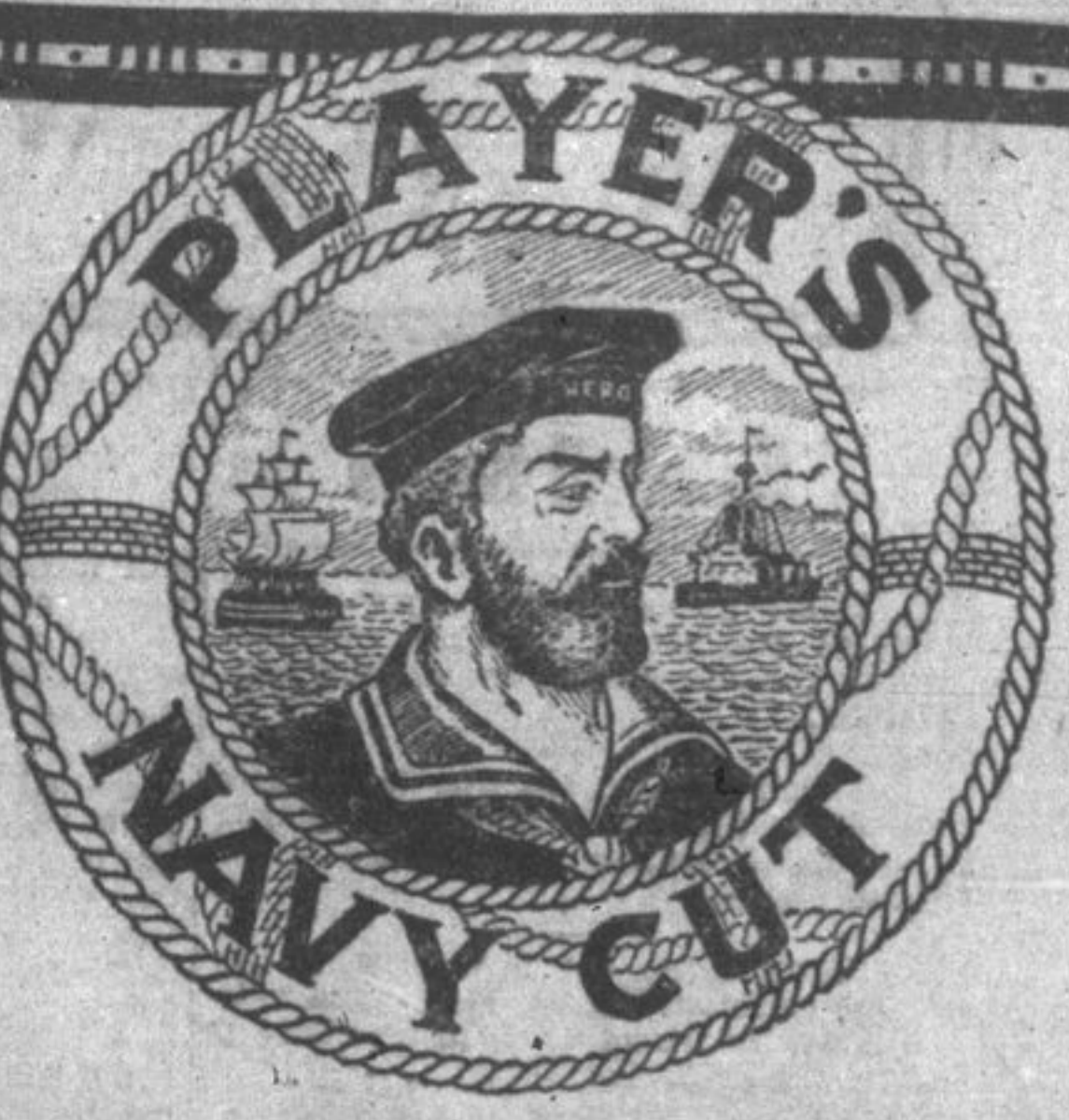
A British scientist claims to have discovered a simple and inexpensive process for converting ordinary peat into a highly concentrated fertilizer.

An Oregon man has developed a motor driven machine for cleaning

fruit and sorting it into ten grades at a rate of more than 17,000 pieces an hour.

Among the new steering wheels for automobiles is one hinged at opposite points so that one-half can be folded down out of the way to give access to the seat of a car or to be locked to prevent theft.

The railroad connecting Chili and Bolivia, which crosses the Andes 14,195 feet above sea level, provides oxygen chambers in which passengers can get relief from the rarified air of the high altitudes.



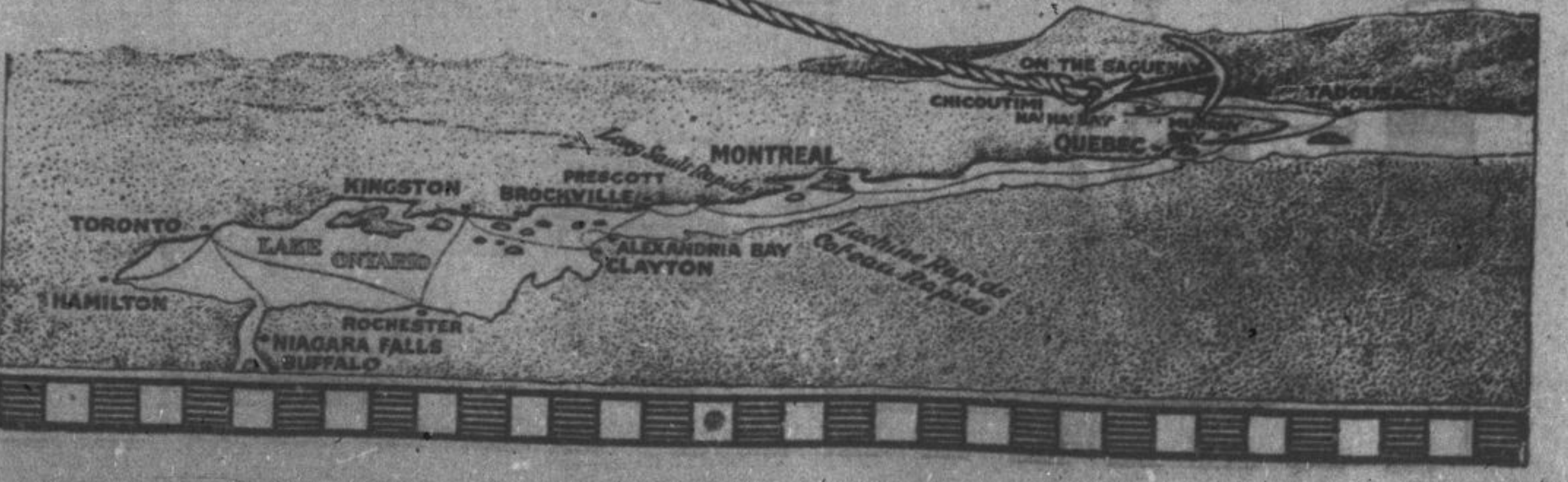
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