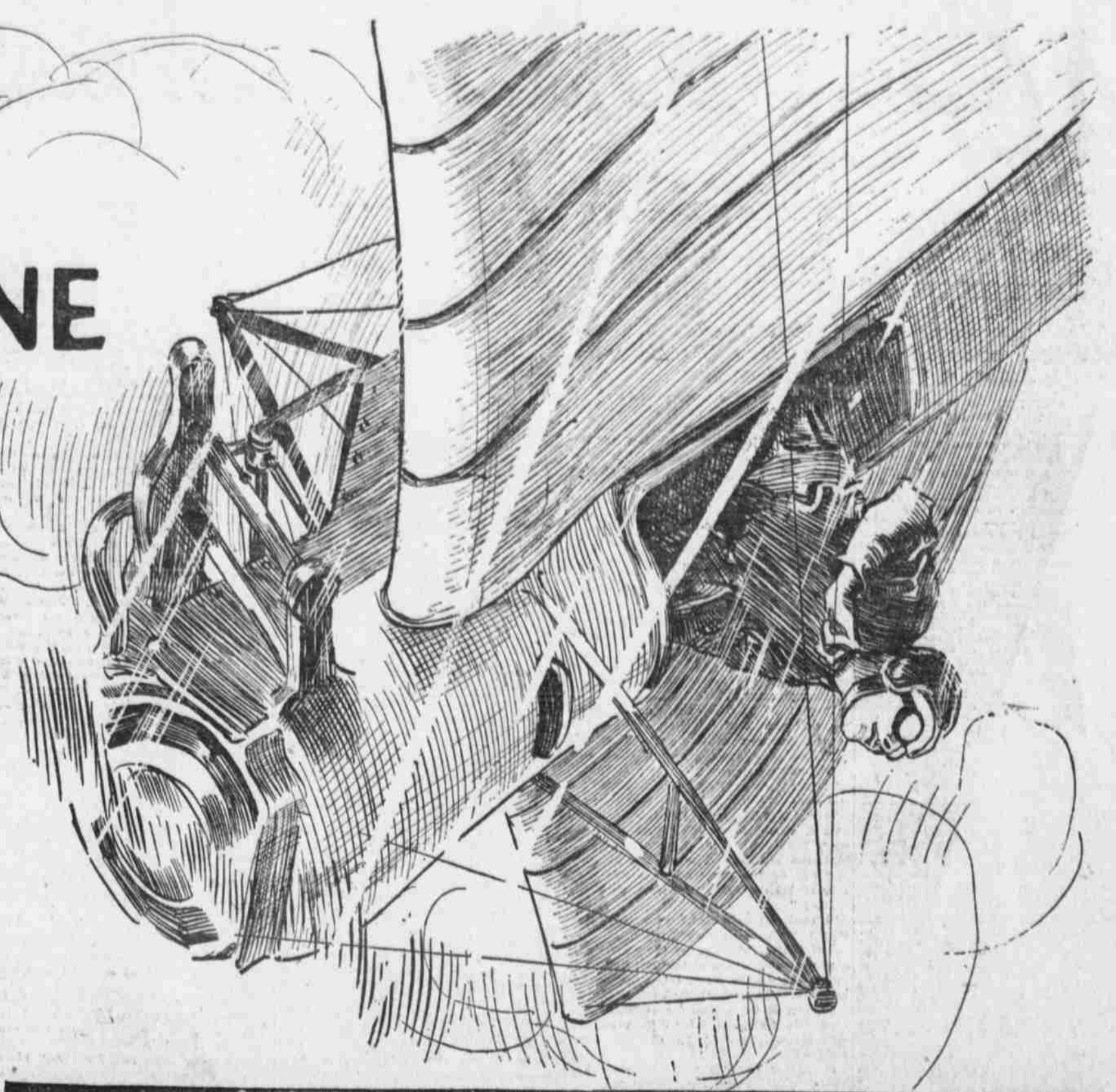


## HOW IT FEELS TO FALL IN A FLYING MACHINE

**Remarkably Vivid Story of Roland Garros, the French War Aviator Whose Machine Turned Upside-Down 7,500 Feet in the Air—But Finally Righted Itself**

The following was sent from the battlefield in Belgium to one of the London newspapers by a war correspondent. The aviator's name was cut out by the censor, but it is believed that Roland Garros, the famous French military aviator (recently made prisoner by the Germans), is the aviator referred to:

**"I Was Falling I Suppose, at the Rate of About 200 Miles an Hour. At Intervals I Heard a Curious Snapping Sound in My Ears and Realized that I Was Deaf. I Could Not Hear My Own Engines. My Eardrums Had Burst!"**



### Looping-the-Loop by Accident Among the Clouds

I HAVE listened to what I shall call "the psychology of war flight" by one of the famous military aviators. It revealed the storm of diverse sensations to which a man may be subjected while carrying out the work of a scout or raider. From the point of view of a medical man it showed in what a remarkable way the nervous system is capable of adjusting itself to new and severe conditions and of preserving its balance even when hope of salvation has been abandoned.

The aviator received orders to go to a particular place and there drop bombs. The route lay along the seacoast over a portion of the country occupied by the enemy and strongly fortified against aeroplanes. Shortly after setting out the zone of fire was entered, and in order to avoid mishap it became necessary to take advantage of such cloud cover as could be obtained.

"I saw," said the aviator, "a heavy cloud in front of me hanging over the sea. It was a gray cloud, or I could not have entered it; black clouds are well known to be dangerous. I was flying at a height of about 7,500 feet. For a few moments all went well and the cover was very welcome. The cloud was of the heavy order, and I could see my compass and barometer quite clearly. After awhile, however, the mist became thicker, and I felt that I was losing my bearing. I was flying quickly, but I did not know in what direction. My compass began to swing around in the most erratic way, and I saw the barometer begin to fall.

"These manifestations did not, however, occasion any alarm, but what followed was unpleasant. Owing to the effect of the strong and contrary currents which are met with in every cloud the machine began to sway about violently. I felt myself knocked from side to side, and had a very difficult task to manipulate the elevator and rudder. The wind whirled about me and the density of the cloud increased from moment to moment. Nevertheless, it was still possible to distinguish the position of the machine in space. Then suddenly everything became quite dark, so that I could not see as much as my hands in front of me.

"I was not frightened so far, at least I do not think so, but I began to think that to have been shot by the enemy would have been the lesser of the two evils. However, thinking was difficult; it required all my wits for the work in hand. I was completely lost. I did not even know at what angle the machine was flying. Then the thought occurred to me that I might side-slip or that the machine might turn over, and I made up my mind to try to rise up out of the cloud. I pulled the elevator for this purpose, and the next moment everything became perfectly silent round about me. I knew then that I had overdone the pull,

and forced the machine up almost vertically, and in consequence had stopped her. I knew that now she would probably slip back or fall over sideways.

"One or the other of these things happened. I did not know which. In any case, I felt my holding-in strap tighten, and knew that I was upside down.

"It was still as dark as night. I tried to right myself and failed. I tried frantically. I began to feel that it was all over with me, and I experienced the most acute agony of mind. But suddenly and quite unexpectedly that feeling passed away.

"I had tried everything and failed. I was conscious of that.

"Now a wonderful sense of calm took the place of the anguish. It was the most easy and delightful sensation I have ever felt. Meanwhile I was falling, I suppose, at the rate of about 200 miles an hour.

"The next thing I remember is that my holding-in belt burst, and that automatically I jammed my knees farther under the indicator board and gripped the seat with my elbows. I had taken my feet off the rudder bar. I was some inches out of the seat, and the machine was upside down. I only knew it was upside down in a vague way because I had left the seat.

"I was quite happy, and I had no anxiety of any kind. I did not feel anything. Then in a moment the aeroplane fell out of the cloud, and I saw the sea rushing up toward me. My hands automatically moved the controls, and at 1,500 feet the machine righted itself.

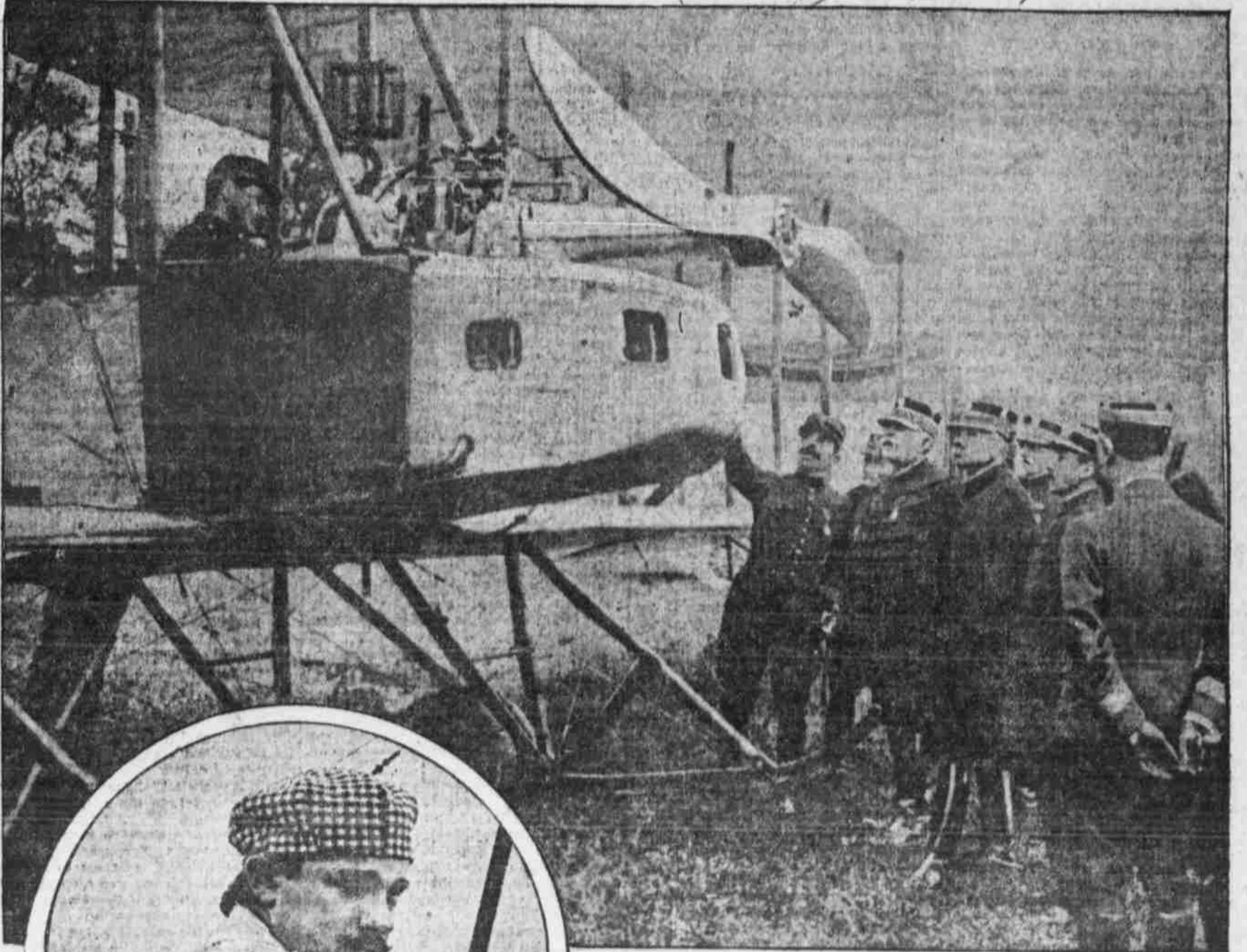
"Then at intervals I heard a curious snapping sound in my ears, and realized that I was deaf.

"I couldn't hear my own engine. My ear-drums had burst.

"The deafness was due to the very rapid descent and consequent suddenly increasing atmospheric pressure. It had a psychological effect, for it helped to accentuate the sense of depression which followed the return to safety. Having passed from violent agitation of mind to the 'calm of despair,' I now suffered a severe sense of shock. But I continued on my way, mastering myself until I was able to launch my bombs. The first of these achieved its purpose, and I saw that it had done so.

"Immediately a reaction of feeling set in. I was so happy that I shouted. I simply could not contain myself. I felt in all my pockets for something else to throw down. All I could find was my matchbox, and so I threw that.

"There was no permanent upset to my nerves, because the next day I was able to carry out my work more or less as if nothing had happened. In proof that the aeroplane had really turned upside down, I discovered that my revolver had fallen from my pocket on the machine."



General Joffre Giving Orders to an Aviator Scout.

## Why Poor People, Farmers and Savages Are Really Better Off Than the Rich

By LEONARD KEENE HIRSHBERG, A. B., M. A., M. D. (Johns Hopkins).

IT has long been a mystery why farmers, the poor, and savage tribes are physically better off than those who live in hotels, restaurants, or have the most expensive food and live seemingly on the fat of the land.

"Some eat meat and cannot eat," while others with royal cooks and a treasury of good things fall ill with scurvy, wasting diseases, anemia, emaciation and loss of flesh.

The explanation of this strange state of affairs is to be found in the experience of the German sea raider, the cruiser Kronprinz Wilhelm, which was compelled to make for a neutral port in order to save the lives of its crew of 300.

Why were these men in danger? Not from any microbe or contagious miasma. Not for want of sunlight. Not for want of plenty of food, fresh air and water. None of these necessities of health were absent from shipboard.

Yet 110 of the men were incapacitated to the point of being bedridden and the other 300 odd were able to do little more than sit up and take notice.

The true inwardness of it all is to be traced to food defects, to wit, the absence of certain mineral constituents and vitamins, the same things which are demanded by babies in their foods, to make their bones strong, their teeth proper, their blood red, and to keep their hair from sweating and showing other tissue defects.

Refined and polished wheat, rice, and other cereals, canned fruits, canned vegetables, and even meats served in the usual way—the so-called "embalmed beef" of the Spanish-American war was such meat—lack certain elements such as calcium and certain ferments called "vitamines," which are absolutely necessary for vitality, health and strength. These lime salts and vitamins are always present in fresh country vegetables and fresh fruits.

In the human tissues other than the bones there is an average of ten teaspoonful of chloride of lime, baking soda, table salt, phosphate of potash, and iron for each 100 pounds of weight. These minerals keep the blood, lymph, chyle and fabric juices balanced and properly distributed. They are intimately connected with each intricate fiber in the living tissues.

Yet without the clean, new, un-

trusted minerals just named, beri beri, hemorrhages, scurvy, rickets and all sorts of chronic maladies often included under that false, useless and meaningless term, "rheumatism," follow.

How, then, are such serious afflictions to be avoided? Can the minerals be administered with food, like table salt, or like iron as a medicine? No. While doctors usually so advise and believe that the patients receive benefits, it is untrue. In doctors, like other average people, hope springs eternal in their human breasts, and their wishes are parents to their beliefs. They always "get results," because they do not recognize that better results are possible in this way.

In fresh orange juice, fresh fruits in general, fresh green vegetables, rough milled, unpolished wheat, barley, oats and other cereals all contain in a serviceable form the minerals which can be taken into the human structures. "Vitamines" are also present in these, neither the latter nor the minerals are to be found in refined cereals, in canned goods, in stale vegetables. Even to keep lima beans a day after they are picked without canning them destroys a great many of these necessary ingredients.



Roland Garros in His Machine.

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## How the War Threatens English Free Trade

THE sad plight of a single English industry threatens to end England's career as a freetrade country. The users of dyes in England employ nearly 2,000,000 persons. As all dyes have been imported from Germany, and the supply cut off by the war, this army of workers is in serious danger of becoming pauperized.

England, of course, might make her own dyes, but capital with which to set up the necessary plants is lacking for the reason that as soon as the war ends it would have no protection against experienced German competition without legislation imposing a duty on the foreign product.

What will the Government do now to save the dye-using industries of Great Britain from little short of disaster?

That is the question which is being asked in all parts of the country? At present something like con-

sternation exists among dye users, who employ about 1,500,000 persons in various trades, for without dyes many branches of manufacture will be crippled, and at present only about four months' supply of dyes remains in the country. The present home output is far too small to meet the needs of trade.

Unless a tariff were imposed at the end of the war, German dye manufacturers would flood England with dyes at prices with which no British company could compete, and it is held by business men to be a foregone conclusion that in that event British Dyes, Limited, would rapidly become bankrupt, and their whole capital would be lost.

By promising a protective tariff the Government could secure the required capital for British dyes without difficulty or delay.

Will the British Government overthrow its whole foreign trade policy to meet this emergency? That may prove to be one of the extraordinary changes wrought by the