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The Two-Hour War

The New Republic Magazine Carried An Article Recently That Gives a Vivid Picture of What the Next War Will Mean

By STUART CHASE

On August 13, 1928, the "Northern Power" opened its attack on London. Seventy-five airplanes, each carrying 500 pounds of "bombs," swooped down upon the city from the northeast. They were met by an equal number of defense planes, by batteries of anti-aircraft guns, by an extensive balloon system—by every known defense against an air attack. But within less than 30 minutes after crossing the coast-line, the defense planes had been eluded, the attack had centered directly over London, "bombs" had been dropped on predetermined targets and the attacking force was wheeling back into the north without a casualty.

Every specified objective was bombed. Fifty thousand pounds of theoretical explosives were dropped through 16,000 feet, with the accuracy of rain fire. Had these 22 tons of bombs been filled with dipyhenyl chloroarsine, half of the population of London, men, women and children, would have been wiped out.

This whole drama to be sure, was mimic warfare, but it was carried out with great care, and the results I have cited were the sober conclusions of army judges. All known methods of defence were helpless before 75 pilots. Not a single attacking plane was downed. Imagine what might be done with 500 planes—a force that every one of the leading nations can readily mobilize. France, for instance, is now in position to bring 1,000 planes into action at the call of the radio.

There are at least two varieties of poison gas against which no mask is any protection. Cacodyl isocyanide is in the possession of all the great powers, a gas so frightful that military men admit to reporters that they do not see how they could bring themselves to use it. Government purchasing agents can also take their choice of bombs filled with deadly germs or bacilli, or with anthrax for the extermination of milk cows and horses. Meanwhile the "radium atom," just discovered, is a more powerful explosive than T.N.T.; and with a newly invented metal combined with a 400-horse-power airplane motor can be built so light that a man can easily pick it up."

Say that war is declared. In Brussels or Calais a thousand men climb into the cockpits of their aircraft. A flying signal, an hour or two of waiting, a little veering, dropping and circling, as the defense planes rise, usually or two as the radium atomizer of the anti-aircraft guns tries vainly to fill a space 100 miles square and four miles deep, one muffled roar after another as the bombs are dropped, per schedule and so, to all intents and purposes, the civilization founded by William the Conqueror, which gave Bacon, Newton and Watt to the world, comes, in something like an hour, to a close. Finished and done London, Liverpool, Manchester, Boston—each now vanishes from the roll of habitable places on the planet. Not even a rat, not even an ant, not even a roach, can survive; every living thing has ceased to breathe by virtue of diphenyl chloroarsine.

The airplane, in effect, has reduced all other war weapons—battleships, fortresses, tanks—to so much scrap iron. The only thing it cannot be safe from is a submarine with a hundred feet of ocean over it. Yet a good submarine costs about $5,000,000; it requires a crew of 30 men; its speed does not exceed 20 miles an hour submerged and it is not a very straight shooter at best. A good airplane may be had for $5,000, its crew is one, it can travel at 200 miles an hour and it can drop a bomb with remarkable accuracy.

In short, it hardly pays to discuss any mechanism of warfare except the airplane. It is more deadly than any other weapon, all factors considered, and it is cheap. It can be built in a few days and its cost, relatively speaking, is a trifle. Its primacy comes, as I see it, from the fact that it can operate in three dimensions, where all other weapons are limited to one or two. A submarine can operate in three dimensions, but only by slow and cumbersome wallows, nor can it flee much of a belligerent nature to operate upon, except sharks.

For a three-dimensional offense there is only the sorriest kind of defense, as the attack on London showed. Some genius has suggested that piano wire be suspended from balloons to trap an air offensive. He should receive a prize from a comic weekly. And these bristling pictures of anti-aircraft guns in the Sunday supplements, together with accounts of their range and accuracy, are an insult to the intelligence. The only way to keep airplanes out of a metropolitan area is to have enough anti-aircraft guns to fill 400 cubic miles practically solid with steel splinters and T.N.T. This would involve, first, a fantastic number of guns, and second, grave discomfort for, if not the positive slaughter of, the metropolitan population, who could just move on the streets without umbrellas of heavy steel.

Military strategy, however, has an answer for the three-dimensional attack. And so, the instant the thousand planes leave Hamburg for the cities of England, 1,500 planes leave London for the cities of Germany. Their wars may cross, but, owing to the slipperiness of space and to the haste of each squadron to be on its way, the casualties will be few, and the end of two civilizations, instead of one, not long delayed. As such things go, another ten minutes at the outside.

There is at least one good thing to be said about the next war: it will not keep us long on edge. We shall not have to worry about finding the money for Liberty Bonds, or wonder whether George is going to get his commission. The whole business will be over in a couple of hours. With lungs full of diphenyl chloroarsine, we shall not need to worry about anything ever again. Personally, though it may be contrary to the code of the sportsman, I know when I am beaten. And against a three-dimensional war-machine, I have no confidence of anything except that the unique association of electrons which comprise myself is about to form new and interesting chemical combinations.

The persons capable of imagining a general holocaust in advance are so few, and of such slight influence, that the world will not realize what it now faces until it has faced it, in a "fait accompli." Then, and not until then, realization will come—possibly, as the extras bring one incredible horror after another, it will come very fast. In a few days, perhaps after the two belligerents have been laid to rest, the neutral world will be in a sufficient state of shock to see that this sort of thing must stop forever.

The surviving West, together with the East, will then banish the machine from war—which means, of course, the banishment of war. Or so the conclusion hangs, neatly balanced between the hope and the belief, within the mind.

Caught Napping

(According to a "Gossip" column, the afternoon nap of our grandmothers is now becoming de rigueur for the Bright Young Thing to-day, who is worn out with her all-night junketings.)

Young girls of the moment whose shoes
The parquet are constantly tapping,
Whose language runs riot, and who's
Some Gloom-chaser endlessly lapping,
Can it really be true
What they're hinting of you,
And shall we at last catch you napping?

So vital of late years you've been,
So assiduous when you go flapping
With intent, as is plain to be seen,
The licence of age to be capping—
And now your high jinks
End in twice twenty winks
Every afternoon, when you're caught napping.

For the manner of life which to-day
Young strength in your teens begins
capping,
A great many moralists say
That what you want's a jolly good
slapping—
But we'll tuck you (instead
Of a spanking) in bed,
Since all babies are better for napping.—"Daily Herald."

"The army should take only married men."

"Why?"

"Because they're trained to take orders, of course."

"Tom is a vile insect!"

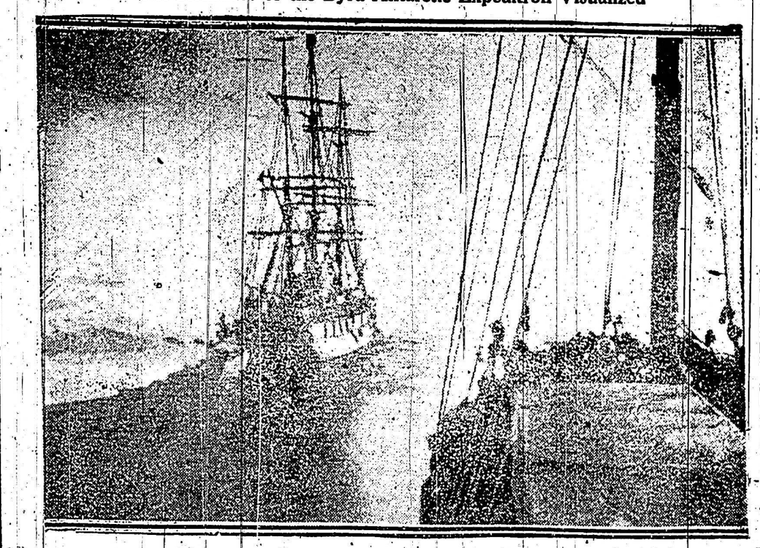
"Send him some insect powder—he may take the hint."

An English writer advises young women to look favorably upon those engaged in horticultural pursuits, assigning as one reason that their mother Eve was a gardener. He forgot to add that in consequence of the match the gardener lost his situation.

A reformer states that if Germany drank nothing but water she could pay what she owes. And if the Allies drank nothing but water they would not need to press the debt.—Atlanta Constitution.

The deadly citrus fly has made its appearance in Florida, but it is a comfort to know that no matter what happens the orange drink industry will not be affected one way or the other.—The New Yorker.

The Romance of the Byrd Antarctic Expedition Visualized



PHOTOGRAPH FROM THE ANTARCTIC SHOWS BYRD NEARING HIS GOAL

A view from one of Commander Byrd's ships on his Antarctic expedition, showing the flagship approaching the great ice barrier which can be seen dimly in the distance.

Garden Service

All the Latest Wrinkles for the Amateur Gardener to Help Make the Home More Beautiful

Flowers for Shady Corners

In even the larger gardens there are always some shady corners in which the ordinary flowers will not do well. In the average backyard the problem of brightening up these spots is ever more difficult because tall fences and close-planted trees add to the shade. However, there are many flowers which will do well in these dark corners, and some actually prefer them. According to Miss Isabela Preston, a specialist in horticulture, with the experimental farms, the following list is recommended for growing in partial shade: alyssum, Candytuft, clarkia, godetia, lonopsidium, acaule, larkspur, lupine, marvel of Peru, nemophila, Nicotiana, oenothera drummondi, pansy, phlox, verbena. The tuberous rooted begonia is also recommended, and is usually at its best when almost completely shaded by foliage. It is not the simplest thing in the world to grow, but will make such a display of brilliantly-coloured wax-like flowers that the extra trouble necessary is well worth while.

Sheep Manure

For building up garden soil nothing really takes the place of well-rotted manure, but in the towns and cities it is almost impossible to secure this. Too often one is only able to get very strawy manure, which will take years to break down and become of much value. The man with the small garden can get round this difficulty by purchasing pulverized sheep manure, which every dealer in seeds carries. This material will add that vitally necessary humus to the soil and is particularly advisable in the case of gardens which have received regular applications of chemical fertilizers for some years. Pulverized sheep manure has another advantage in that it is heated while being processed, which kills any weed seeds. Where one gets a load of the ordinary manure, he must be prepared for a fresh crop of weeds. Sheep manure used for enriching the soil and adding humus with nitrate of soda to hasten growth in both the vegetable and flower garden makes a good combination.

Flowers for Winter Bouquets

The first killing frost which turns a garden of beauty into a drab, tangled mass of twisted, blackened stems always brings a sharp pang of regret to the owner. No longer will he be able to gather a generous armful of bloom for indoor decoration. This regret, however, will be tempered if provision is made now for the growing of certain flowers, the blooms of which can be dried and will last indefinitely. Chief among these is the helichrysum or strawflower. This is a hardy annual about two feet high, producing large, different-coloured blooms, though mainly yellow, until late in the season. Another one is the Rhodanthe, which may be had in a white or a bright rose. The statice comes in mauve, white and primrose and combinations of the three. A fourth is the acroclinium, which may be had in a white or a bright rose. All these annuals, in addition to their winter bouquet qualities, will make a splendid show in the garden during the summer and early fall as well. For preserving the flowers with long stems should be picked just before opening and hung in some dark, warm place to dry. The Chinese lantern-plant, which is a sort of an ornamental variety of winter cherry, is also grown for permanent indoor decoration, as the pods turn bright red and puff up like Chinese lanterns when dry. The perennial and annual larkspur can also be dried, and will make a fair bouquet, although it is inclined to be a little more ragged than those regularly recommended for this purpose.

Each Counted One On Driver

Here are a couple of motoring stories: subtle or not as you please but "one on the driver."

In one case a piece of insulated wire was bared at both ends. One end was connected to the earthing terminal of of the magneto and the other was led to a spot just under the accelerator pedal, so that when the driver put his foot down a connection was made and the magneto earthed. To the driver the symptoms seemed exactly those of a choked jet in the carburettor.

The other trick was less subtle. A man had just taken delivery of a new car. While he left it unattended some having friends firmly wired a kipper round the car's exhaust pipe. As soon as the pipe heated up the kipper began to cook, and the smell worried the driver immensely! He even put some fresh oil in the pump.

Says Leisure is Worse Than Work

London.—The subject of leisure, and the right use of it was dealt with by H. Hamilton Fyfe at the Congress of the National Union of Students, at Aberystwyth, recently.

There were some problems as old as the human mind, he said, but this was a new one, because not until recent years had the mass of the people enjoyed leisure to any great extent.

It was a problem that arose out of the industrial revolution.

During the 150 years which had passed since that event, machinery had been more and more developed, and workers in factories had become more and more parts of machines.

It was that lack of interest in the work that promoted the demand for more leisure. That demand was natural and inevitable. Eight hours had become general. Several hours prevailed in some trades; there was talk of six and even four hours in the future.

But with all this extension of leisure, a few knew how to use it.

Stolen Treasures Found In Valise

Austrian Crown Jewels Said To be Worth Millions of Dollars

Casablanca, Morrocco.—The Austrian Crown Jewels, stolen in 1921, were discovered in a valise checked in the town of Safi.

The valise contained the famous imperial necklace, worth millions of dollars, and many other valuable articles belonging to the Crown collection.

It was believed that Mailda, Italian, who was arrested when he tried to sell some of the jewels, was merely a tool for an international band of thieves and confidence men.

Germany and South Africa

Sydney (N.S.W.) Sun: The passage of the German trade treaty through the South African Assembly has raised acutely the question of Dominion power to make treaties without reference to Britain. . . . The jubilation of Berlin, however, seems a little disproportionate. . . . South Africa has a strong and bitter anti-British leaven, composed of Dutch irreconcilables and a section of the Labor Party, both of whom are working together against the imperial idea. In no other Dominion is there such a powerful anti-Imperial party. Australia and New Zealand are both solidly British, and the Canadian French, though naturally not enthusiastic about British Imperialism, find in it substantial advantages and concessions which could not be enjoyed under United States dominance.

The Predominance of Montreal

Saskatoon Star-Phoenix (Lib.). The development of Montreal to its present position has been an expensive undertaking, but the Canadian people are dobutless satisfied with the dividends accruing from the investment. They take pride in Montreal's commercial advance and share with Montrealers the bright hopes for the future which the Harbour Commission expresses. Where they cannot sympathize with Montreal is in the belief that Montreal's present predominance must at all costs be preserved, that "the interests of Montreal are paramount," to use the words of Mr. Taschereau, in questions affecting Canadian export trade routes. Montreal's hostility to the Hudson Bay Railway and the St. Lawrence waterway project has not enhanced its prestige with the rest of the country.

GABBY GERTIE

"When a girl throws an oil can out of her car it means friction has been eliminated."

"Do you embrace your opportunities?"

"Only the blonde ones."

"Pathenia," her father called from the head of the stairs, "what time is it?" "A quarter of ten, father," she sweetly answered. "All right," came heavily over the midnight air, "but start the clock again when the young man goes out for breakfast."

Flying for Less Than a Cent a Mile

An achievement for which the nautical engineers and commercial aviation concerns have been working—and working for years, was reported in the daily press the other day when Capt. L. M. Woolson and an assistant flew a Stinson airplane equipped with a heavy-oil Diesel engine some seven hundred miles at a fuel cost of $4.68. Aviation gasoline, it is estimated, would have cost $[illegible] for the same journey—from Detroit to Langley Field, Virginia. But, explained, the ability of this engine (designed by Captain Woolson on the Diesel principle and manufactured by the Packard Motor Company) to use fuel oil is only one of its claims to superiority. As the New York Sun explains:

"The Dieselized airplane, if proves successful, will be safer from the fire hazard, while the elimination of the electric ignition system will make it easy to equip it with radio.

"The Diesel engine takes petrol oil, sprays it into a combustion chamber filled with highly compressed air and automatically ignites the explosive mixture."

C. B. Allen, The World's aeronautical authority, was at Langley when the Woolson machine arrived and he says:

"The Packard-Diesel aircraft engine is a nine-cylinder, air-cooled radial engine resembling the Wright whirlwind in general appearance, save that it has but a single valve which functions both for exhaust and for the admission of air to mix with its fuel oil.

"Those who have seen the engine say there is no reason, if it proves successful, why it may not be used for use in automobiles, thus revolutionizing the costs of motoring as well as those of flying."

In a Detroit dispatch to the New York Times, we learn that—

"The economy in fuel load, according to a 40 per cent. saving, is an equal increase in pay load, a matter of importance to commercial operation of aircraft.

"Although the Diesel weighs more than gasoline engines of equal power, estimated at three pounds per horse-power as compared to two pounds per horse-power, the difference, it is stated, is more than compensated by the disparity in weight of fuel loads."

Of course, remarks the Sun:

"It must not be assumed that the Diesel engine will immediately supersede its gasoline rival. But the news does indicate that the problem is on the way to solution. And in turn is an evidence that the aviation industry is approaching the point where it will be able to compete with existing transportation media on something like equal terms."

Nile Waters

London Times (Ind.): It is stated that a comprehensive agreement has been reached by the British and Egyptian Governments on the question of the irrigation of Egypt and Sudan will be received with general legitimate satisfaction in this country. . . . Egypt, with which this country has been so closely associated for nearly fifty years, has won back from the waste the ancient cognomen of the Pharaohs and of the Ptolemies. The Sudan is largely virgin soil, but even there the records and traditions of Ethiopian kings and the tombs of the ancients bear witness to a former civilization that perished as much by the sands as by the hordes of the encroaching desert. The Nile agreement holds out vast possibilities for the agricultural future of both countries. Its conclusion converts the dreams of the great irrigation engineers who are or were associated with the revival of scientific irrigation in Egypt into confident and practical hopes.

Buy Imperially

Saint John Telegraph-Journal (Ind.): Canada's products, unlike those of the north temperate zone, Canada has no tropical produce. The modern conditions make economic interdependence between tropical and temperate producing countries essential. This is the foundation for a growing trade activity between Canada and the West Indies. The empire produces within its confines everything needed. If there is a choice, therefore, between a product of the Empire and that of a foreign country it is obvious that it should be bought in the Empire. The consumer is not always aware how great an influence he may exert in this way. When he inquires at a store for a specific article he should first ask himself whether it is an Imperial product.

HARD JOB

When Noah sailed the waters wide
He had troubles, same as you.
For forty days he drove the Ark
Before he found a place to park.

Farm Notes

Protecting Calves Against Blackleg

In certain sections of the country, particularly where the drainage is poor, cattle owners suffer losses through the disease of blackleg, which attacks calves after they are [illegible] months of age and up to the age that they are two years old. It seldom attacks cattle of other ages and rarely affects other classes of livestock. Dr. A. E. Cameron, chief veterinary inspector of the Department of Agriculture at Ottawa, describes the disease, which is marked by loss of appetite, dullness and high temperature. Swelling of the body above the legs at any point is a common symptom and is accompanied by a crackling sound when pressed with the hand. The crackling, Dr. Cameron explains, is due to the formation of gas in pockets in the tissues beneath the skin. Fortunately, the disease is preventable by vaccination with blackleg aggressus filtrate or vaccines products obtainable through local agencies, druggists and veterinarians. In Bulletin No. [illegible] of the Department of Agriculture, instructions are contained for submitting specimens to the laboratory of the Department for examination. A few drops of blood of an animal that is suspected of having the disease, in an equal amount of glycerine, may be placed in a vial. If a vial is not convenient, a few drops of the blood, if dropped on a sheet of clean notepaper and allowed to dry, will answer as a specimen. In either case the package must be carefully packed with the sender's name and address and the history of the case. If carefully wrapped according to instructions contained in the bulletin, which is obtainable from the Publications Branch of the Department, Dr. Cameron recommends as a preventive measure, the inoculation of young calves before they go to pasture, and in bodly infected districts, inoculation again in the fall is recommended.

Substitute for Skim Milk in Hog-Raising

While it is recognized that dairying and hog raising go well together, one need not be discouraged in undertaking to raise pigs in the absence of a producer of dairying. Fishmeal, a commercial product of considerable importance, is proving a useful substitute to skim milk as a supplement to the grain ration during the fattening period. At a trial carried out at the Agassiz, British Columbia, Experimental Farm, during sixty-four days, two feeds were compared. Two pens were fed a ration consisting of one part bran, one part corn meal, two parts shorts and seven per cent. fishmeal. Two other pens were fed a similar basic grain ration except that no fishmeal was included. The hogs were given instead of the fishmeal six pounds of skim milk per day per pig. The milk was charged at 25 cents per hundred pounds, and the fishmeal at $50 per ton. While the skim milk fed groups produced slightly cheaper gains, the rate of gain was practically the same for the two groups. In his report for last year, published by the Department of Agriculture at Ottawa, the Superintendent of the farm concluded from his experiment and previous ones that skim milk at 25 cents per hundred pounds gives cheaper pork than fishmeal at $50 to $60 a ton. The difference in the cost in this test amounted to about two cents a pound of gain made by the hogs.

Varieties of Strawberry for Canning

The strawberry holds an important place in the dessert fruits enjoyed by the people of Manitoba. The home garden crops on many farms provide fresh strawberries during the ripening season as well as large quantities for canning purposes. Tests for suitability for canning of different varieties grown at the Morden Experimental Station were made by the university graduates in home economics. Mr. W. H. Leslie, the Superintendent of the Station, in his report for last year, gives the results of the tests on the basis of colour of the fruit when canned. The varieties turning out very rich, red fruit are given as marvel premier, prince, easy picker and a few others, including champion. For good colour, dunlap, Dr. Burrill and progressive stand high. Of the medium pink to light red colour, Glen Mary, Minnehaha, Nokomis and Gastadon are classed. Of the lighter, poor coloured varieties Stevens late, lockwood giant, cooper and a few others are named. The report of the Station for last year, published by the Department of Agriculture for last year published by the Department of Agriculture at Ottawa, gives the other qualifications of these varieties, including softness, productiveness and shape. The report is based on a four-year period with fruit grown at the station and canned under definite controlled conditions. Mr. Leslie observes that fuly red berries are desired in order to obtain the best bright colour in the canned product.

MUTT AND JEFF— —By Bud Fisher.

They Get Ready to [illegible] The Rolling-Pin.

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