

Section 3

ABSTRACTS OF FOREIGN-LANGUAGE ARTICLES

EXPLANATION

The entries from foreign-language magazines, in Section 2, include digests of the articles. This Section is designed to furnish translations or abstracts of the more important articles. Therefore, this Section is an extension of Section 2.

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BACTERIAL WARFARE

(The use of biologic agents in warfare. By Major Leon A. Fox, Medical Corps. Infantry Journal, January-February 1933)

Abstracted by Lieutenant Colonel A. Gibson

1. War is the use of force by one nation to impose its will upon another.

The means and methods used in war have changed progressively with man's development in art, science, and industry.

Man has always used whatever means and methods were available at any particular stage in his civilization and which gave promise of enabling him to subjugate his enemy. It is an axiom that no effective weapon once introduced has ever been abandoned until it was displaced by a more effective weapon or protection developed that rendered the instrument useless.

Chemical Warfare, or so-called gas warfare, came into being in 1915, not because men at this stage in civilization

were more ruthless or more anxious to destroy than in previous wars, but because for the first time the development of a large chemical industry made chemicals in large quantities, and suitable types, available on the battlefield as an aid to the orthodox means and methods of winning battles.

Strange as it may seem, as the technique and tactics of chemical warfare developed, the percentage of deaths and the degree of suffering decreased from a very high point in the first gas attack to the lowest point for any means or method of waging war that has ever been invented.

Without this purpose or thought on the part of those introducing it, chemical warfare has actually done more to reduce suffering and to humanize war than all the conventions that have assembled for this purpose during several centuries.

This statement is so contrary to popular misinformed opinion that to many it will seem bizarre. And yet a very cursory perusal of the incontrovertible data that the several governments engaged in the war have made available, can not help but convince any fair minded reader, so clear and overwhelming is the proof.

2. While great effort is being made the world over to establish international relations and machinery that will forestall a future war, yet the success of this effort is sufficiently uncertain to cause each nation to ask: "What new means and methods of warfare have modern art, science, and industry made available? Are we prepared to protect our soldiers and our civilians against any possible new means and method of warfare?"

Bacteriology has made tremendous strides in recent years. We know it carries both the seeds of life and death. Our thoughts at once turn to it as a possible method of waging war in the future. The bacteriological arm has not yet been employed in war.

The biologic agents available for warfare are:

- a. The communicable diseases
- b. Other infective processes (such as wound infections)
- c. Toxic products of bacteria.

3. An international commission consisting of Professor Pfeiffer (Breslau), Bordet (Pasteur Institute), Madsen (Copenhagen), and Cannon (Harvard) appointed to investigate this

subject, reported to the League of Nations in 1922 essentially as follows:

a. The effects of bacterial injury cannot be limited or localized.

b. Modern water purification methods protect against the organisms of typhoid and cholera.

c. Plague is a disease that would be as dangerous for the force using the organisms as for the attacked.

d. The danger from typhus has been exaggerated.

e. Modern sanitary methods are effective in controlling communicable diseases.

f. Bacterial warfare would have little effect on the actual issue of a contest in view of the protective methods which are available for circumscribing its effects.

g. As regards the poisoning of weapons, the experts point out that the germs which could be employed (streptococci, anthrax spores, glanders bacilli, etc.) would not preserve their danger properties if they were prepared a long time beforehand and allowed to dry on metallic surfaces. Nor if placed in a projectile would these germs better resist the shock of discharge, the rise of temperature, and the violence of an explosion which destroys all life. The only method presenting a certain danger would be that of dropping from aeroplanes glass globes filled with germs.

h. The majority of experts are of the opinion that bacteriology cannot at present produce effective substances capable of destroying a country's live stock and crops.

A reasonable conclusion from the report of this League of Nations Committee of Experts is that no nation, however ruthless, would probably resort to bacteriological warfare because of the technical difficulties involved and because the danger to its own people would be so great.

4. Chemical Warfare and Bacteriological Warfare because of their inherent elements of the mysterious and unknown have afforded recently a fertile field for the imaginative writer from Emil Ludwig down to the more or less unknown scribbler in popular periodicals.

These articles are written for popular consumption and have no regard for scientific facts nor for reasonable logical deductions from the basic data.

The results are lurid tales of horrors that tend to create an unreasoning prejudice against economical, scientific, and

relatively humane means of national defense by attributing to science a ruthless inhumanity of which it has not been guilty and which is technically and scientifically impracticable in so far as we can now see. There is a need of combating the effects of these articles on public opinion, by the presentation of the truth in a conservative, scientific manner, written in a style that will appeal to the general reader.

Major Fox's article satisfies these requirements. It presents in a clear, non-technical, and comprehensive manner that information which each officer and each well informed civilian should have with reference to Bacteriological Warfare.

5. He concludes: "It is believed that it has been shown that the development of implements of warfare represents an evolution based on the gradual application of the improving mind of man. The one factor of importance in this development has been effectiveness. It has been a question of the good mind versus the strong back; of the thinker versus the lifter. It is believed that the future of warfare will be based on the same principles. It is therefore apparent that the question of whether chemical munitions will be used or not, and whether bacterial warfare will be used or not, will depend on their practicability rather than on the sentimental reactions of pacifists.

I consider that it is highly questionable if biologic agents are suited for warfare. Certainly at the present time practically insurmountable technical difficulties prevent the use of biologic agents as effective weapons of warfare."

BRUSILOV AND HIS RIDERS IN JUNE 1916

[Brussilov und seine Reiter im Juni 1916. By Oberstleutnant Diakow. Militärwissenschaftliche Mitteilungen, January 1933.] (See original for sketch)

Translation by Major A. Vollmer

In June 1916 Brussilov had carefully prepared the offensive of his group of armies against the Austro-Hungarian front. The objectives of the armies were definitely fixed; the missions and actions of the breakthrough groups were organized in the most minute detail. Nothing was to be left to chance.

On 4 June the storm broke on the Southwest front from Pripjatj to the Rumanian border. By 10 June it was known that a great success had been attained. The Russian attack troops of the north and south wings had broken through the fortified zones at Luck and on both sides of the Dniester, and