

THE 1925 GENEVA PROTOCOL: EXPORT CONTROLS, BRITAIN, POLAND AND WHY THE PROTOCOL CAME TO INCLUDE 'BACTERIOLOGICAL' WARFARE

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THE 1925 GENEVA PROTOCOL: EXPORT CONTROLS, BRITAIN, POLAND AND WHY THE PROTOCOL CAME TO INCLUDE 'BACTERIOLOGICAL' WARFARE

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Introduction

The Geneva Protocol prohibiting the use of chemical and bacteriological weapons emerged from the Conference for the Control of the International Trade in Arms, Munitions and Instruments of War (henceforth the Arms Traffic Conference) that ran from 4 May to 17 June 1925 under the auspices of the League of Nations. A prohibition on the export of poisonous gases and chemicals was initially proposed by the United States, but ran into opposition on the grounds that it would be difficult to separate legitimate trade in chemicals from export of those intended for military purposes. Instead of a focus on trade controls the Conference moved to a separate declaration prohibiting use and during the proceedings the scope was extended to 'bacteriological weapons' in response to a specific Polish proposal.²

Unlike chemical weapons, which were used extensively in World War I, there was no comparable use of biological weapons. In 1920 a captured document during the Irish War of Independence showed that the Irish Republican Army at some stage considered the possibilities of infecting British military horses with 'glanders or some similar infectious disease.'³ Britain therefore had a very rudimentary potential threat from biological weapons on its own doorstep, which may have been a factor in its approaches to the Arms Traffic Conference. That said, there appears to be no documentary evidence for this in Foreign Office or Cabinet Office papers on the Conference. And in 1924 there was a public contemporary recognition of an attempt in

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² Erhard Geissler and John Ellis van Courtland Moon Edited, SIPRI Chemical & Biological Warfare Studies 18 Biological and Toxin Weapons: Research, Development and Use from the Middle Ages to 1945 (OUP, 1999), Chapter 4 Poland and Biological Weapons, Jerzy Witt Mierzejewski pp 65–68. See also Prof. Dr. Jerzy Mierzejewski, General Kazimierz Sosnkowski, The Creator of the First International Prohibition of Bacteriological Weapons Usage, Federation of European Microbiological Society Circular 54 (July 2003), pages 10–11.

³ Diarmaid Ferriter, A Nation and Not a Rabble The Irish Revolution 1913-1923, Profile Books, London, 2015 page 208; see <http://www.bureauofmilitaryhistory.ie/reels/bmh/BMH.WS1713.pdf> for the statement of James O'Donovan to the Irish Bureau of Military History on his role as Director of Chemicals, General Headquarters Staff; also House of Commons on November 18, 1920 by the Chief Secretary for Ireland, Hamar Greenwood (subsequently Viscount Greenwood), see Hansard, HC Deb, 18 November 1920, vol. 134, columns 2067–8. There does not appear to be any specific file on this issue listed in The National Archives Cabinet Office, Colonial Office or War Office catalogue entries for 1920 – more research might bear fruit.

World War I by Germany to attack the Romanian army's cavalry horses with glanders, but this was marginal and ineffectual in the great scheme of things.⁴

A key question therefore is exactly how did 'bacteriological' warfare come to be added to the scope of the new Protocol? Apart from one fleeting reference, there was no discussion on bacteriological warfare during the 1921–1922 Washington Conference when it turned its attention to chemical warfare on 6 January 1922.⁵ Nor is there an indication that this issue was considered by the British delegation when it focussed on the new US proposal for a declaration on a prohibition of chemical warfare later in the day after the Washington Committee on Limitation of Armament's Sixteenth Meeting had adjourned.⁶ The ban on use of chemical warfare agreed by Britain, France, Italy, Japan and the United States in Washington is important in this context as it is the direct antecedent to the eventual 1925 Geneva Protocol. A review of contemporary British state papers on the Arms Traffic Conference and earlier deliberations on disarmament matters in League of Nations meetings in the early 1920s provides some further insights: there appears to have been a concern about future scientific developments that might make bacteriological weapons even more of a threat than chemical warfare. This paper therefore describes the negotiations, initially on a proposal to control the export of poisonous gases, which was the precursor to the eventual inclusion of bacteriological warfare in the scope of the new declaration, which was to become the Geneva Protocol of 1925. It will also look at the contemporary intelligence and wider biological science contexts that may have shaped decisions in 1925.

A US Initiative: a ban on exports of poisonous gases

The story begins with gas. Shortly after the Arms Traffic Conference began the United States proposed on 7 May 1925 that there should be a prohibition on the export of poison gas and analogous materials in the proposed Convention constraining the arms trade.⁷ The proposal read as follows:

The use in war of asphyxiating, poisonous or other gases and all analogous liquids, materials or devices, has been justly condemned by the general opinion of the civilised world and a prohibition of such use

⁴ Geissler and van Courtland Moon op. cit. Chapter 3 Biological sabotage in World War I, Section IV The German biological sabotage programme in Romania, Mark Wheelis.

⁵ The National Archives (TNA) CAB 30/10, Washington Committee on Limitation of Armament, Sixteenth Meeting, Friday January 6th, 1922. A resolution that emerged from the Advisory Committee of the American Delegation resolved 'that Chemical Warfare, including the use of gases, whether toxic or non-toxic, should be prohibited by international agreement, and should be classed with such unfair methods of warfare as poisoning wells, introducing germs of disease ...'

⁶ TNA CAB 30/2, Conference on Limitation of Armaments Washington, 1921–22 Conference and British Empire Delegation Memoranda, B.E.D 153 British Empire Delegation Report of Committee with Respect to Poison Gas, 22 December 1921; TNA CAB 30/1A, British Empire Delegation Conference minutes 458-73 1921 Nov 13–1922 Jan 31, B.E.D 67th Conference, Twentieth Conference of British Empire Delegation, Washington held at the British Embassy, Washington on Friday January 6 1922.

⁷ TNA FO 371/11034, League of Nations C.C.I.A 19, Conference for the Control of the International Trade in Arms, Munitions and Implements of War, Proposal of the Delegation of the United States regarding chemical warfare, Geneva, 7 May 1925.

has been declared in treaties to which a majority of the civilised powers are parties. The High Contracting Parties therefore agree absolutely to prohibit the export from their territory of any such asphyxiating, poisonous or other gases and all analogous liquids, intended or designed for use in connection with operations of war.

An alternative version was also offered:

To the end of lessening the horrors of war and of ameliorating the sufferings of humanity incident thereto, the High Contracting Parties agree to control the traffic in poisonous gases by prohibiting the exportation of all asphyxiating, toxic or deleterious gases, and all analogous liquids, materials and devices manufactured and intended for use in warfare under adequate penalties applicable in all places where such High Contracting Parties exercise jurisdiction or control.

At this point General Kazimierz Sosnkowski (Permanent Representative for Poland to the League of Nations) remarked that, 'in as much as the materials used for bacteriological warfare constitute an arm that is discreditable to modern civilisation, the Polish delegation proposes that any decisions taken by the Conference concerning the materials used for chemical warfare should apply equally to bacteriological warfare.'⁸ No one dissented, though at this stage it would seem that the focus was on export controls and exactly how such controls might be applied to the biological sciences was not made clear by the Poles.

The British response: a focus on chemistry

The Foreign Office was quick to seek the views of other Whitehall departments before instructing the head of the British Empire delegation in Geneva, Lord Onslow, on what he should say in response. The Board of Trade objected; it was adamant that this initiative could not be supported.⁹ Such a ban could not be made effective in Britain without placing serious obstacles in the way of British export trade in chemicals. The Board assumed that the aim of the proposal was that the export of gases and other materials, both liquid and solid, would have to be prohibited by the Convention; and that these should be defined to include those of military value and intended for military purposes; and to exclude those which were to be used for industrial, medicinal or other beneficial purposes. However, this would involve the application of a licensing system to a considerable group of chemical substances, and the licensing authorities of each state party would have to determine in the case of each consignment whether the materials were intended for military purposes or not. To compound matters, the Board recalled that certain of the gases used for military purposes in the war were largely

⁸ League of Nations, Proceedings of the Conference for the Supervision of the International Trade in Arms and Ammunition and in implements of War A.13 1925. IX, Geneva, 1925 page 161. See also General Kazimierz Sosnkowski, the United States and the Ban on Bacteriological Weapons, *The Polish Review*, Vol.15, No.2 (Spring 1970), page 111.

⁹ TNA FO 371/11034, folio186, E. Fountain, Commercial Relations and Treaties Department, Board of Trade to The Under-Secretary of State, Foreign Office, 13 May 1925.

used for industrial purposes. If it still proved necessary to have some sort of measure on this issue, the Board would much prefer adding a Category in Article I of the draft Arms Traffic Convention that would limit the schedule of the other gases and materials that it was deemed necessary to include. This list should be limited to those items the preponderant use of which was of a military nature. Lord Onslow was informed on 14 May that the Board of Trade hoped that no decision was taken until they had time to study the proposal further.¹⁰ Views from elsewhere in Whitehall had still to be submitted.

By 20 May the Army Council had considered the proposal; in its view the US initiative was opposed in spirit to the Cabinet decisions on British chemical warfare policy taken on 18 February 1925; these had implied a complete preparedness to use gas if circumstances demanded it without however departing from the spirit of the 1922 Washington Conference declaration (a prohibition on the use of chemical warfare first proposed by the US¹¹). As it stood the US text appeared to prohibit the export of gas even within the British Empire, which would hamstring the Army's ability to move stocks of munitions as required, though the Council thought that this concern could be addressed by adoption of Article 24 of the inter-departmental Committee's re-draft of the Arms Traffic Convention.¹² Indeed the US proposal would prevent a chemical-producing country from sending gas to the help of a non-producing ally; a situation which the Army Council regarded as 'being unthinkable'. The Lords Commissioners of the Admiralty and the Air Ministry were in full agreement with the Army Council's view.¹³ That said, the Admiralty noted that Britain should not oppose the proposal to restate the declaration that was made on non-use of chemical warfare as part of the 1922 Washington Treaty. The Admiralty also suggested that an issue that should receive further attention was the 'possible use of gas by semi-civilised nations'. Their Lordships proposed that the US initiative should be supported subject to four conditions:

- I. That the industrial activities of the chemical industry were not interfered with;
- II. That transport of such materials between different parts of the Empire was allowable – it did not seem clear from the wording of the US text;
- III. That the prohibition should lapse if in war one of the belligerents used gas;
- IV. That this prohibition should not apply to smoke producing materials such as phosphorus.

In light of this the delegation in Geneva developed its own lines to take for use in the Conference's Military Committee. These were: that a prohibition would not affect eventual employment of gas; non-producing countries would be placed at a serious disadvantage compared with the producing countries; non-producing countries would

¹⁰ TNA FO 371/11034, folio 188, Foreign Office telegram No. 81, 14 May 1925.

¹¹ TNA CAB 30/10, Washington Committee on Limitation of Armament Seventeenth Meeting, 17 January 1922.

¹² TNA FO 371/11035, folio 51, War Office to The Under-Secretary of State, Foreign Office, 20 May 1925.

¹³ TNA FO 371/11035, folio 57, Charles Walker, Admiralty to Under-Secretary of State, Foreign Office 21 May 1925; TNA FO 371/11034, folio 29, Air Ministry to The Under-Secretary of State, Foreign Office, 18 May 1925.

be exposed to a serious menace on the part of an unscrupulous enemy; prohibition would interfere seriously with legitimate commerce and the scope of the Arms Traffic Convention would be unwarrantably enlarged.¹⁴ This proposed line was sent to the War Office for the Deputy Director of Military Operations for review. The Foreign Office was largely guided by the views of the Board of Trade, but it did seek confirmation that the Board would not object to any declaration against the use of gas in warfare, provided that it was not accompanied by any provision elsewhere in the Arms Traffic Convention affecting the export of gasses in peacetime. As far as the Board itself was concerned this was a matter of military policy and one that did not concern its members.¹⁵ In addition, Foreign Office officials wondered whether calling for a declaration might give the Americans some satisfaction and make them rather more amenable on other points that were of concern to the British – although these were not specified.¹⁶ In the same vein, Lord Onslow was instructed to take advantage of the US proposal on exports to extend the prohibition on the use of chemical warfare that was at that time only limited to those powers that had signed the 1922 Washington Treaty.¹⁷ For the Foreign Office the then current legal position was clear enough in that the ‘majority of powers of any importance’ were already prohibited by international law from any use of gas in warfare; the Board of Trade’s objection to the US proposal appeared to the Foreign Office to be insuperable. Thus as long as the US insisted on its export provision, Lord Onslow was ‘to continue to resist the American amendment to the utmost’.

The legal view: was gas banned already?

Foreign Office legal advice seems to have been that Britain was already bound by Article 23 (a) of the Land Warfare Regulations to abstain from using gas which is calculated to cause any unnecessary suffering; also that Britain was bound in common with all the other parties to the Land Warfare Regulations.¹⁸ Britain was also bound by The Hague Declaration of 1899 against the use of projectiles whose purpose was the diffusion of asphyxiating or deleterious gases. If a gas was not poisonous or did not cause unnecessary suffering, and provided that it was not disseminated by the use of projectiles whose sole purpose was the diffusion of gas, then its use was only prohibited by the peace treaties and by the 1922 Washington Treaty so far as the latter had been ratified by the parties that had signed it. In the post-1918 peace treaties the prohibition on use was solely imposed on the ex-enemy powers.¹⁹ Sir Eric Drummond, the League of Nations Secretary-General, felt that the US proposal on exports of gas had only been put forward in order to achieve a ‘scoop’.²⁰ It is not entirely clear what

¹⁴ TNA FO 371/11035, folio 53, Telegram from Lt Col Lowe, Geneva for D.D.M.O. War Office, 20 May 1925.

¹⁵ TNA FO 371/11036, folio 63, E. Fountain, Board of Trade to R. H. Campbell, Foreign Office, 23 May 1925.

¹⁶ TNA FO 371/11035, folio 89, Letter Foreign Office to E. Fountain, Board of Trade, 22 May 1925.

¹⁷ TNA FO 371/11035, folio 91, Memorandum on points on which Lord Onslow requires instructions, 20 May 1925; folio 98 6. Poison Gas, Western Department, 20 May 1925.

¹⁸ Convention (IV) respecting the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land. The Hague, 18 October 1907.

¹⁹ TNA FO 371/11034, folio 195, Arms Traffic Conference, manuscript minute, 15 May 1925.

²⁰ TNA FO 371/11034, folio 196, Arms Traffic Convention, March 1925.

Drummond meant, but we can suppose that he was inferring that the US aim was to grab some favourable headlines and capture the moral high ground; that might have been the unstated British view as well.

Lord Onslow's assessment of the US proposal noted that it was a question of whether CW use was in fact prohibited by international law - it seemed to be only applicable to those states that had ratified the post-1918 peace treaties or the Washington Treaty of 1922. Therefore if it was desired to constitute a general rule, it could be possible to utilise the Arms Traffic Conference for obtaining that effect by embodying in the Convention some provision that was analogous to Article 171 of the Treaty of Versailles.²¹ Onslow noted, however, that the Washington Treaty, although of great weight, was only a declaration by the British Empire, the US, France, Italy and Japan – and it had not yet been ratified by all of these powers.²² And for this reason it could not be relied upon as the foundation of a general rule of international law. There was, in the British delegation's view, an opportunity to prohibit gas in warfare completely with the Arms Traffic Convention, by using it to obtain a declaration from a sufficient number of states to constitute a general rule. That said, there was also a view that chemical warfare was really something beyond the immediate object and purpose of this Convention - a view expressed privately by one delegate to Lord Onslow on 9 May 1925. This seems to be the first indication that a separate declaration would be the better vehicle for making the use of chemical warfare illegal under international law.²³

In short the British attitude was that of 'cordial sympathy with anything which will prevent the dissemination of such gases for warlike purposes'. Furthermore, HMG took the view that Britain, in common with a number of other states, was bound by existing international law to refrain from the use of such 'barbarous methods', and was only too anxious to see the obligation extended to embrace the whole civilised world. However, there were no means of distinguishing between such gasses, or their components, and a number of chemical substances were used extensively for perfectly legitimate industrial purposes. An absolute prohibition of export - as proposed by the US – would 'kill a thriving British industry' which, with the help of the Board of Trade, had been successfully built up since 1918. For the British if any means could be found for reconciling these competing interests, then they would be the first to welcome them.²⁴

²¹ TNA FO 371/11034, folio 198, Lord Onslow, to Secretary of State J. Austen Chamberlain, 10 May 1925. The relevant parts of Article 171 read: 'The use of asphyxiating, poisonous or other gases and all analogous liquids, materials or devices being prohibited, their manufacture and importation are strictly forbidden in Germany. The same applies to materials specially intended for the manufacture, storage and use of the said products or devices.'

²² TNA FO 371/11034, folio 200, Proposal of the Delegation of the United States, Chemical Warfare, British Delegation, Geneva, 9 May 1925.

²³ TNA FO 371/11034, folio 201, Proposal of the Delegation of the United States, Chemical Warfare, British Delegation, Geneva, 9 May 1925.

²⁴ TNA FO 371/11035, folios 64-65, Ronald McNeil, Foreign Office to Captain Ian Fraser, MP, 28 May 1925. Fraser was a Conservative MP for St Pancras at the time.

Towards a separate protocol: a Polish reminder

The Conference's Technical Committee discussed the US proposal on 25 May 1925.²⁵ The general opinion was that a prohibition on the traffic in chemicals would be abortive until the wider problem of chemical warfare had been settled, but that this issue was beyond the authority of the Committee to consider. As a result of this the US delegation made a new proposal on the following day as follows:

Use in war of asphyxiating poison or other gases and all other analogous liquids, materials or devices having been justly condemned by general opinion of the civilised world – a prohibition of such use having been declared in treaties to which the majority of the civilised Powers are parties – signatory Powers to this end, that this prohibition shall be universally accepted as a part of international law binding alike conscience and practice of nations, declare their assent to such prohibitions, agree to be bound thereby as between themselves and further agree to prohibit exportation and importation of all such asphyxiating poison and other gases.

14. The British delegation was anxious to be seen to be constructive and 'not excite public criticism' that the question of chemical warfare had again been shelved. Thus following a compromise, a new formulation was crafted by the American, Italian, Polish and British delegations on 26 May 1925 that read as follows:

Military, naval and air technical committee unanimously recognising that chemical and bacteriological warfare has been justly condemned by opinion of civilised world to the end that this prohibition shall be universally accepted as a part of international law binding alike conscience and practice of the nations, considers every possible effort should be made to secure as soon as possible [a] universal convention forbidding this warfare, considering that prohibition of export of chemical and bacteriological arms even if was possible to have no effect until all nations undertook to abstain from chemical and bacteriological warfare of all kinds, proposes that this larger political issue, namely prohibition of chemical and bacteriological warfare, should be considered by a special conference which should be convoked at an early date made at which all parties should be represented.²⁶

It is not at all clear from contemporary Foreign Office or Cabinet Office papers how this compromise was reached, or exactly why bacteriological weapons were added at this particular point in the proceedings. We do know however that the issue had been first raised in the Conference on 7 May 1925 by Poland following the initial US proposal on

²⁵ TNA FO 371/11035, folios 37 and 38, American proposal relating to poison gas, telegram HM Consul (Geneva) to Foreign Office, 26 May 1925.

²⁶ TNA FO 371/11035, folios 37 and 38, American proposal relating to poison gas, telegram HM Consul (Geneva) to Foreign Office, 26 May 1925.

export controls on poisonous gases, so it clearly did not emerge out of thin air. At this stage the British delegation made a reservation that a proposal for such a special conference in no way would bind the British government. Clearly a more considered view from London was required.

The Cabinet Committee on the Arms Traffic Convention meeting on 28 May 1925 noted that Lord Robert Cecil (Chancellor of the Duchy of Lancaster and Committee Chairman) did not think that there could be any objection to approving a declaration proposed by the British, US, Italian and Polish delegations on chemical warfare. Cecil made no reference to the addition of bacteriological warfare to the scope of the prohibition. He noted that it amounted to nothing more than what had been agreed in 1922 at the Washington Conference. No objection was raised and it was agreed to instruct Lord Onslow, accordingly.²⁷ A telegram was duly despatched 29 May with the necessary authorisation for Onslow to accept the terms of the declaration proposed by the American, Italian, British and Polish delegations.²⁸ As Ivone Kirkpatrick (then in the Foreign Office's Western Department and later the Permanent Under-Secretary) observed 'it looks as if this will dispose for the time being of the American poison gas amendment.'²⁹

The Arms Traffic Conference's Drafting Committee produced a new draft of a separate protocol on chemical warfare on 7 June; this would be signed at the same time as the Arms Traffic Convention.³⁰ The idea of a separate protocol came from the French; meanwhile the idea of a separate signing conference elsewhere was quietly dropped.³¹ The draft read thus:

The undersigned plenipotentiaries in the name of their respective governments considering that the use in war of asphyxiating poisonous or other gases and of all analogous liquids, materials or devices has been justly condemned by public opinion, and that the prohibition of such use has been declared in treaties to which the majority of powers of the world are parties, and to the end that this prohibition shall be universally accepted as a part of international law binding alike the conscience and the practice of nations, declare that the High Contracting Parties so far as they are not already parties to treaties prohibiting such use accept the prohibitions and agree to be bound thereby as between themselves.

At its 8 June 1925 meeting the Cabinet Committee on the Arms Traffic Convention agreed to instruct Onslow that, whilst accepting the proposed protocol on chemical warfare, he should intimate that the question of British ratification will depend on the

²⁷ TNA CAB 27/274, A.T. (25) 3rd Conclusions, Cabinet Committee on the Arms Traffic Convention, 25 May 1925.

²⁸ TNA FO 371/11035, folio 113, 29 May 1925.

²⁹ TNA FO 371/11035, folio 37, American proposal relating to poison gas, 27 May 1925.

³⁰ TNA FO 371/11037, folio 2, telegram No 212 from Lord Onslow Geneva to Foreign Office 7 June 1925.

³¹ United States Arms Control and Disarmament Agency, Arms Control and Disarmament Agreements Texts and Histories of the Negotiations, 1990 Edition, Washington, page 10.

actions of other powers.³² The Committee noted that HMG would prefer a ratification clause along the lines of the main draft Arms Traffic Convention, which would have required ratification of specific states before the Treaty could enter into force.³³ What is odd here is that this text had dropped the earlier references to bacteriological warfare, and that the Cabinet Committee does not seem to have noticed the omission, or sought its reinsertion given that Britain had already been a part of an earlier compromise that specifically added bacteriological warfare to the scope of the prohibition. Meanwhile in Geneva on 5 June, during the Seventeenth Meeting of the Conference's General Committee, the Japanese delegate recalled that in the earlier discussion on the 7 May US proposal on exports, the committee had in fact aired the possibility that any further declaration prohibiting chemical warfare should also be extended to cover bacteriological warfare.³⁴ The US and Dutch representatives also mentioned bacteriological weapons in their interventions on the subject of prohibition on use. After the debate at its Seventeenth Meeting the Committee voted to adopt the US proposal for a separate protocol that would contain Article V of the 1922 Washington Treaty.

Three days later on 8 June 1925 the matter was before the General Committee again. And this time General Sosnkowski³⁵ took the floor to issue a reminder:

I desire to draw the attention of the Committee to what I think is an omission in the draft protocol. I think this is probably due to a misunderstanding. The Polish delegation proposes that all decisions regarding chemical warfare should be extended to bacteriological warfare. ... I would point out that recent scientific progress has made it possible to accomplish much more by this means than was the case during the late war. Even before the outbreak of the late war something was known of chemical warfare and gas warfare, but the results of this form of warfare were so much greater than expected that they surprised even those who had carried out the experiments. We may be confident that the development of bacteriological warfare will be on a far greater scale ... It can be prepared with greater secrecy ... it may extend not only to human beings, but to plants, vegetation of all kinds, to animals of all kinds ... It can be used, moreover, by secret agents with far greater facility than chemical warfare.³⁶

³² TNA FO 371/11037, folio 4, Foreign Office telegram number 150 to Lord Onslow, 8 June 1925.

³³ TNA CAB 27/274, A.T. (25) 6th Conclusions, Cabinet Committee on the Arms Traffic Convention, 8 June 1925. Article 32 of the Convention stated that it 'cannot come into force until ratified by 12 powers among whom shall be the following: United States of America, France, Great Britain, Italy, Japan and Russia.'

³⁴ TNA FO 371/11037, folio 76, First Part of the general report, Chemical and Bacteriological Warfare, 5 June 1925.

³⁵ For a discussion of Poland's role in this issue see Chapter 4 Jerzy Witt Mierzejewski and John Ellis van Courtland Moon, Poland and biological weapons in Geissler and van Courtland Moon op.cit.

³⁶ TNA FO 371/11037, folio 86, Verbatim report of the Twentieth Meeting of the General Committee held on Monday 8 June 1925, Chemical Warfare: Draft Protocol drawn up by the drafting committee.

Sosnkowski went on to argue that in all debates on chemical warfare in the Conference, bacteriological means of warfare were also considered at the same time; and that the Swiss, for example, had proposed to treat these topics on parallel lines. It was impossible to deal with the problem of chemical warfare satisfactorily if bacteriological warfare was not addressed at the same time. For these reasons Sosnkowski proposed to add the phrase 'and extend it to means of bacteriological warfare' in the current declaration draft; this was more or less the final formulation that appeared in the adopted text of the Protocol where the phrase was changed slightly to read 'agree to extend this prohibition to the use of bacteriological means of warfare.' The French delegate suggested that the title of the Protocol should also be amended to reflect this point – that would be sufficient in his view. Poland's amendment was adopted on a show of hands; and the final text was formally adopted on 10 June.³⁷ The Protocol itself was opened for signature on 17 June 1925. Although Poland made this crucial intervention, it is clear that in the earlier stages of the Conference others had also stated the importance of including bacteriological warfare in a general prohibition of chemical warfare. So its inclusion in the Protocol was not the sole responsibility of Poland, though the Poles clearly had a leading role.

A German interlude

On 26 May 1925 at a meeting of the Arms Traffic Conference's Military Committee the German delegate made the following announcement:

Germany is ready to endorse without any reserve whatsoever any international agreement aiming at abolition of chemical warfare. In making this declaration I feel I am giving a satisfactory answer regarding a solemn obligation on the part of Germany not to have recourse to chemical warfare.³⁸

And on the next day this announcement was followed by a further statement in Berlin from Dr Gessler (Minister for the Reichswehr):

Germany has proposed at Geneva that the use of poison gas, this particularly inhuman and unchivalrous method of waging war, should be abolished. At the same time as long as that is not the case we must prepare all the necessary means of defence available.

Lord d'Abernon, British Ambassador in Berlin, thought that it might be expedient for Britain to take public notice of the new German attitude either by way of an inspired question in the House of Commons, or by reference in a speech by a British Minister. In his view the new policy now adopted by Germany had importance in its 'bearing on her real potentialities for war with a still greater importance in its bearing on her supposed

³⁷ TNA FO 371/11036, folio 213, Verbatim Report of the Twenty-Second meeting of the General Committee. 10 June 1925.

³⁸ TNA FO 371/11036, folio 213 telegram 209 from Lord D'Abernon (Berlin) to Foreign Office 31 May 1925.

potentialities.’³⁹ This issue was taken up by no less a personage than King George V himself. His Private Secretary Lord Stamfordham wrote to the Foreign Secretary Austen Chamberlain to make clear that the King ‘most earnestly trusts that the Government will take every possible advantage’ of the German declarations. And furthermore ‘His Majesty sees in this spontaneous offer of Germany an opportunity which should not be lost to abolish for ever a horrible and inhuman method of warfare. It should be remembered that, if such an agreement cannot be arrived at, Germany will go ahead with her chemical research for the purpose of developing poisonous gases; and we may be tolerably certain that she will beat other nations in a branch of science in which she already excels.’⁴⁰ The King of course was remarkably prescient as Germany went on to develop the nerve agents tabun and sarin in the 1930s and 1940s.⁴¹

The Cabinet Committee on the Arms Traffic Convention meeting on 3 June 1925 discussed whether or not some public recognition should be made of the German declaration. It seemed clear from Lord Onslow’s reporting from Geneva that all the Germans had done was to support the American proposal to include in the Convention some declaration condemning the use of gas. After some discussion the Committee decided to take no action on Lord D’Abernon’s recommendations.⁴² The Committee took the view that Germany had definitely committed itself to a ban, and would be further committed when she signed the proposed protocol. To take public note of the Geneva and Berlin statements would not really affect this position; and there seemed to be ‘no sort of occasion to give the Germans a little pat on the back’, which was very likely to be the light in which any public reference to the matter would be perceived.⁴³

The Foreign Secretary’s reply to Lord Stamfordham explained the background to the German proposal and the state of play in the Arms Traffic Conference in Geneva. He noted that the original US proposal for a ban on exports of poisonous gas had received very little support and had prompted British opposition given its potential adverse impact on the chemical industry.⁴⁴ The focus now had moved to a separate declaration prohibiting the use of chemical and bacteriological weapons. Chamberlain went on to add that he thought that the German statements noting that there was no current international legal ban on chemical warfare ‘may have been intended as a posthumous justification of Germany’s action in the late war’. This correspondence was copied to

³⁹ TNA FO 371/11036, folio 215, telegram no 210 from Lord D’Abernon (Berlin) to Foreign Office 31 May 1925.

⁴⁰ TNA FO 371/11037, folios 7 & 8, Lord Stamfordham, Windsor Castle to Austen Chamberlain, Secretary of State, Foreign Office, 1 June 1925.

⁴¹ Jonathan B. Tucker, *War of Nerves, Chemical Warfare from World War I to Al Qaeda*, Pantheon Books, New York, 2006 see Chapters Two and Three.

⁴² TNA CAB 27/274, A.T. (25) 4th Conclusions, Cabinet Committee on the Arms Traffic Convention, 3 June 1925.

⁴³ TNA FO 371/11037, folio 6, minute from R. M. Campbell, undated.

⁴⁴ TNA FO 371/11037, folios 11-14, Foreign Secretary to Lord Stamfordham, 5 June 1925.

Lord d'Abernon in Berlin under cover of a letter from the Foreign Secretary.⁴⁵ And there the matter rested.⁴⁶

Offensive BW programmes: the intelligence context 1922–1925

Were there any compelling contemporary intelligence reports that could have set a wider context for the commentaries on bacteriological warfare and the proposal to include it in the scope of the Geneva Protocol? Were there any meaningful offensive programmes underway as the Protocol was being negotiated? Gradon Carter and Graham Pearson writing in 1999 noted that although Britain had some intelligence reports on foreign biological warfare interests in the 1920s, these were characterised by their paucity, lack of detail and almost hearsay nature.⁴⁷ Indeed Carter observed separately that the parties to the Geneva Protocol can have had little real knowledge of the means whereby biological agents might be employed or, indeed any knowledge of feasibility beyond extrapolation from naturally occurring disease and medical microbiology.⁴⁸

However, there is one set of reports from 1924 to 1926 in British archives that contains detailed plausible and seemingly credible intelligence reports of significant offensive research and development work on 'bacteriological bombs' in the USSR.⁴⁹ Trotsky is reported as saying that

'we have already commenced experimenting with the plague, cholera and typhoid bacilli. In Leningrad experiments have shown that it is possible to attack our enemy by the employment of bacteriological bombs discharged from aeroplanes ... our agents abroad and in the rear of the enemy will be provided with adequate means for spreading infection among the enemy troops and in industrial centres.'⁵⁰

And it is clear that this was not empty boasting as field experiments had been conducted, and although some were unsuccessful with no infection detected in the

⁴⁵ TNA FO 371/11037, folio 15, Foreign Secretary to Lord D'Abernon, Berlin, 5 June 1925.

⁴⁶ It is worth noting that the German chemical industry in this period was subject to controls and inspections by the Inter-Allied Military Control Commission and that by 1920 these had significantly reduced German chemical production – see Richard J. Shuster, *German Disarmament after World War I The diplomacy of international arms inspection 1920–1931*, Routledge, London, 2006 page 66.

⁴⁷ Geissler and van Courtland Moon op. cit. Chapter 9 British biological warfare and biological defence, 1925–45, Gradon B. Carter and Graham S. Pearson, p.169. The French were embarking on offensive research at this time - see Olivier Lepick, "French activities related to biological warfare, 1919-45" in Erhard Geissler and John Ellis van Courtland Moon (editors), *Biological and Toxin Weapons: Research, Development and Use from the Middle Ages to 1945*, SIPRI Chemical & Biological Warfare Studies no 18 (1999) pp 70-90.

⁴⁸ G. B. Carter, *Chemical and Biological defence at Porton Down 1916–2000*, London, The Stationery Office, 2000, page 44.

⁴⁹ TNA WO 188/764 Bacterial Warfare: Russia 1924-26. This file contains no contemporary technical assessments indicating whether the information was seen as believable, though questions were asked whether the agent could have assembled the information in one report from text books. See TNA WO 188/764, SIS to Secretary, Chemical Warfare Committee, 10 February 1925. There are no redactions either as the files are complete.

⁵⁰ TNA WO 188/764, Russia Bacteriological Warfare, 1 October 1924. Trotsky was speaking to the Military Section of the Comintern on 21 July 1924.

exposed animals (dogs on this occasion)⁵¹, other trials resulted in a herd of cattle 'sufficiently infected to assume that humans would not remain completely immune.'⁵² In other experiments projectiles fired from trench mortars and small calibre guns at penned pigs produced 'favourable results'.⁵³ Despite these apparent successes, the Red Army was not at all keen on biological warfare. Bacteriological bombs would not, in the Red Army's Staff's view, play an important role in future wars because of the risk that deliberately spread infectious diseases would be equally dangerous to Soviet forces and that they would come off worst – a fact all the more pressing given the poor state of Red Army medical services at that time.⁵⁴ For these reasons there was no hurry to confirm any project for the introduction of bacteriological bombs into the Red Army's arsenals. Leitenberg and Zilinskas have written that the Soviet offensive BW programme appears to have officially started in 1928, but clearly this formal decision was preceded by significant experimental work that would have laid the foundations for a formal decision.⁵⁵ Notwithstanding Red Army hesitancy in the mid-1920s, the R&D programme was investigating an agent that would produce sickness sufficient to render troops powerless which at the same time lead to fatal results only in about 25% of the cases – the agent in question was epidemic encephalitis and dispersal trials of this agent had yielded 'extremely favourable results'.⁵⁶ During 1925, the year that the Protocol was agreed, British intelligence reports were noting in 1926 that the study of bacteriological bombs had been considerably extended.⁵⁷ In that year the Soviet concept was that plague and tetanus were intended exclusively for use in wartime, whilst in peacetime use would be limited to epidemic encephalitis.⁵⁸

There does not appear to be any direct correlation between these intelligence reports and the formulation of British positions in the Arms Traffic Conference when it came time to argue for, and support, the inclusion of bacteriological warfare in the scope of the proposed prohibition of use. However, it is not unreasonable to assume that awareness of their content may have shaped British thinking at the time as the aforementioned intelligence reports were distributed to the War Office, Admiralty and Air Ministry. Officials do not always state their underlying assumptions on paper when decisions are made. An intriguing question is whether Sosnkowski was aware of Soviet BW efforts; there does not seem to be any indication that he was.⁵⁹ Such reports

⁵¹ TNA WO 188/764, Soviet Russia Bacteriological Bombs, 6 November 1924.

⁵² TNA WO 188/764, Bacteriological Bombs, 1 December 1924.

⁵³ TNA WO 188/764, Bacteriological Warfare, 21 November 1924.

⁵⁴ TNA WO 188/764, Bacteriological Warfare, 21 November 1924; Soviet Russia Preparation of Bacteriological Bomb in SSSR, 22 January 1925.

⁵⁵ Milton Leitenberg and Raymond A. Zilinskas, *The Soviet Biological Weapons Program*, Harvard University Press, Cambridge, 2012, page 20.

⁵⁶ TNA WO 188/764, Soviet Russia, Bacteriological Bombs, 4 November 1924.

⁵⁷ TNA WO 188/764, Russia Bacteriological Bombs, 28 September 1926.

⁵⁸ TNA WO 188/764, Russia Bacteriological, 9 September 1926.

⁵⁹ There is no suggestion that this was a factor in an article published in *The Polish Review* in 1970 (Vol.15 No. 2 Spring pages 105–113) entitled General Kazimierz Sosnkowski, the United States and the Ban on Bacteriological Weapons. This article was based on materials supplied by the General's widow, Jadwiga K. Sosnkowski and the late General's Aide-De-Camp, Witold Babiński. Sosnkowski died on 11 October 1969.

however did not prompt any immediate response in terms of either a British offensive or defensive BW programme. In 1922, for example, energies at Porton Down were concentrated on the production of a new respirator to provide adequate protection against the chemical warfare agents used in World War I.⁶⁰ It was not until 1940 that research work on biological weapons began at the Chemical Defence Experimental Station at Porton Down when a team was assembled in great secrecy to evaluate and study the feasibility of biological warfare.⁶¹

Biological sciences in the 1920s: the scientific context

Well before the opening of the Arms Traffic Conference in May 1925 scientists were building on the germ theory of disease as enunciated by Pasteur and proved by Koch. The Golden Age of Microbiology lay roughly in the period from 1850–1915. Koch's validation of the germ theory with his work on anthrax was published in 1876, and what became known as 'Koch's Postulates' were published in his work on the aetiology of tuberculosis in 1884 and this, amongst other things, such as the development of methods to isolate and culture bacteria, formed a basis for further development of bacteriology and the identification of the causative agents of other infectious diseases in the late 19th and early 20th century (and beyond).⁶² All of this sets a context for Sosnkowski's statements in May and June 1925 and an earlier one from Lord Robert Cecil in 1922 at a League of Nations disarmament meeting. These strongly suggest that a core reason for including bacteriological weapons in any ban was an anxiety over what future developments in science might bring (not just on bacteriological weapons, but in chemical warfare too). Cecil remarked that:

Nor is poison gas the only example of the future development of chemical warfare ... there is the whole department of bacteriological attack which may be developed as science progresses. It is of great importance that the peoples of the world should realise before it is too late what those new methods of warfare will mean in future, not only to the armies in the field but to the civil population at home.⁶³

There is also some material in a 1925 Temporary Mixed Commission for Disarmament⁶⁴ report that notes that in respect of bacteriological warfare:

⁶⁰ TNA WO 188/2798, Memorandum on the Necessity for Re-organisation of the Present Method of Directing and Controlling Chemical Warfare Research (Amended Copy), Preparatory Note, 16 May 1922.

⁶¹ Peter M. Hammond and Gradon B. Carter, *From Biological Warfare to Healthcare Porton Down, 1940–1950*, Palgrave, Basingstoke, 2002, page 2. In a comment on an intelligence report of Soviet bacteriological bomb tests at Kugali Island in the Caspian Sea in October 1926, the Chief Superintendent of the War Office's Chemical Warfare Research Department, J. Davidson Pratt observed that, 'it is particularly interesting to note that the vitality of the organism was not destroyed by the bursting of the bombs.' TNA WO 188/784, Comments of the Chemical Warfare Research Department, 28 February

⁶² <http://www.asm.org/index.php/choma3>

⁶³ League of Nations, Report of the Temporary Mixed Commission on Armaments, Geneva, 7 September 1922.

⁶⁴ The TMC was created in September 1920 to formulate plans for national and international disarmament under the auspices of Article 8 of the League of Nation's Covenant – see Gaynor L Johnson, *Lord Robert Cecil Politician and Internationalist*, Ashgate, Farnham, 2013, page 128. There is no explanation in this major biography of Cecil showing why he thought bacteriological weapons were an issue. It does however emphasise the importance of the First

In contradistinction to the chemical arm, the "bacteriological" arm has not been employed in war. Apart from all humanitarian considerations, the reasons for this may be found in the contemplation of the effects it might produce were it ever resorted to ... although the conclusions drawn may be comparatively reassuring for the present, they nevertheless direct attention to the possibilities which the development of bacteriological science may offer in the future, and consequently to the importance of not allowing ourselves to be lulled into any false sense of security. A priori, the effects of the bacteriological arm can neither be measured nor localised ... even after the cessation of hostilities.⁶⁵

For these reasons it is fair to suppose that Sosnkowski could well have been driven primarily by these considerations when he reminded the negotiators to include bacteriological weapons in the prohibition on chemical weapons use. But we should also ask ourselves what was going on in the world of biological sciences in the 1920s that might have been behind these concerns or directly prompted them? Were there any specific developments or breakthroughs that the likes of Cecil and Sosnkowski would have known about or could reasonably be expected to know about? Was there anything analogous to the sorts of debates that we are having today over questions raised by Gain of Function experiments, synthetic biology, CRISPR-Cas gene editing?⁶⁶ A quick review of some standard histories of microbiology does not reveal anything specific in that period that might be classed as game changing. It is reasonable to suppose that the influence of the 'Golden Age' and the emergence of the aetiology of a number of infectious diseases were probably still strong in the mid-1920s; and likely too that many of the diplomats involved in Geneva would have been aware of the significance and potential impact of such a significant breakthrough. A 1992 history of microbiology suggests that concerns about the potential impact of scientific change were perhaps not unfounded since some five years after the Protocol was signed:

The period approximating 1930-1950 was a 'vicennium' of extraordinary transformation of microbiology, just prior to the landmark publication on the structure of DNA by Watson and Crick in 1953. We have important milestones for the vicennium: Jordan and Falk (1928) and "System of

World War to understanding his transformation from domestic politician to the leading British internationalist of his generation. See page 280. In his own memoirs Cecil wrote that 'though I never got near enough to the front to see war as it actually is, yet my glimpses of its relatively distant surroundings were among the chief causes of my determination to devote the rest of my life for the maintenance of peace.' Quoted in Johnson op.cit. page 3. In correspondence with the author, Professor Johnson noted that she did not recall any detailed discussion on the bacteriological warfare issue in Cecil's papers held in the British Library.

⁶⁵ League of Nations Report of the Temporary Mixed Commission for the Reduction of Armaments, Report of the Committee Appointed to Consider the Question of Chemical and Bacteriological Warfare, pages 29-30, 30 July 1924.

⁶⁶ See for example a presentation by Dr Cedric Invernizzi, Spiez Laboratory at the BTWC Meeting of States Parties Experts, CRISPR/Cas An Adaptive Bacterial Immune System on Its Way to Become a Game Changer in Genetic Engineering, 12 August 2015. [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/A60F7B2106175E24C1257E9F0065DDEF/\\$file/Swiss_presentation_BWC_MX_2015_S&T-CRISPR_INC.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/A60F7B2106175E24C1257E9F0065DDEF/$file/Swiss_presentation_BWC_MX_2015_S&T-CRISPR_INC.pdf)

Bacteriology” (1930) at its start are magisterial reviews of prior knowledge and thought.⁶⁷

In Armistice week November 1918, a virulent strain of influenza was killing 7,000 people per week in Britain.⁶⁸ A search for the responsible agent had begun in earnest that year leading to the first isolation of an influenza virus in the 1930s.⁶⁹ Diana Preston has recently observed that the potential effect of biological weapons had been shown by this pandemic. So although it is difficult to demonstrate a clear cause and effect between awareness of the scientific context, the impact of the Spanish influenza outbreak and the proposal to ban the use of bacteriological weapons, we can see in the contemporaneous debates over chemical warfare that many of the statesmen and diplomats of the day readily recalled and identified the adverse impact of scientific developments in chemistry that had led to the extensive use of chemical weapons in World War I.⁷⁰ This also no doubt shaped perceptions of future risk. And on the question of developments in scientific understanding, it was not until 1926 that Thomas Rivers distinguished between bacteria and viruses, establishing virology as a separate area of study – though one view goes as far as to suggest the 1950s as the true date.⁷¹ Rivers published his findings in 1927 after he had first presented them to a meeting of the Society of American Bacteriologists in December 1926.⁷² Even although influenza is caused by a virus rather than being ‘bacteriological’, that would not have been clear at the time to the likes of Cecil or Sosnkowski.

Conclusion

It is evident that there was a concern in the early and mid-1920s about the future potentialities of bacteriological warfare; its inclusion into the Geneva Protocol was not a result of lessons learned from extensive and effective use of such warfare either in World War I or anywhere else. Exactly why the Poles should have made the key interventions, and Sosnkowski in particular, remains elusive and an area where further research is needed, but there is nothing necessarily untoward in initiatives in international diplomacy being pursued by committed and engaged individuals who are driven by a sense of urgency and of a sense of what they perceive to be the right thing to do at a particular time given the challenges they face in the context of their times.

If there is one contemporary lesson that we can take from this experience for current work on the Biological and Toxin Weapons Convention in a Review Conference year,

⁶⁷ History of Microbiology, Milton Wainwright, University of Sheffield, Joshua Lederberg, The Rockefeller University, Encyclopaedia of Microbiology, Volume 2, 1992, Academic Press. Inc, p 419.

⁶⁸ Diana Preston, A Higher Form of Killing: Six Weeks in World War I that Forever Changed the Nature of Warfare, Bloomsbury Press, location 4552, Electronic Edition, 2015.

⁶⁹ See <http://www.medscape.com/viewarticle/812621>

⁷⁰ League of Nations, Report of The Temporary Mixed Commission for the Reduction of Armaments, E. Report Of The Committee Appointed To Consider The Question of Chemical and Bacteriological Warfare, Geneva, 30 July 1924.

⁷¹ Ton van Helvort, When did virology Start? ASM News, Volume 62 No.3, 1996, pp 142-145. <http://www.asm.org/images/Membership/archives/SignificantEvents/1892%20sig%20events%20pdf%201%20ivanowski%20virology.pdf>

⁷² Rivers, T. 1927. Filterable viruses. A critical review. Journal of Bacteriology. 14: 217.

then it is the need to be alive to future scientific and technological change and to act accordingly in elaborating procedures to address it. Concern with the impact of such change is not new - it has evidently been a longstanding focus for those involved in biological disarmament.

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