“In the train there was talk only about the war. The dread of another winter of war is noted in all classes of society... ‘We win and win, but we win ourselves to death,’ people say... Spirits are very low in the Reichstag. People are facing the new year with thoughts of tears, blood, and misery.”

Hans Hanssen, Member of the Imperial German Reichstag. *Diary of a Dying Empire.*

Welcome to *The History of the Twentieth Century.*

By the autumn of 1916, the peoples of Europe had suffered through two years of terrible war and all the attendant hardships that come with war, including shortages of all kinds, most notably food. We’ve already seen how the war has impacted agriculture. Fertilizers are in short supply, as are horses, and there’s a shortage of labor to work the fields and bring in the fruits of the harvest. As a result, harvests have been getting smaller every year the war drags on.

In a cruel twist of fate, the situation is about to get even worse.

The weather during the 1916 harvest season was about as bad as it could be across Europe. Heavy rains impeded the harvest and spoiled the crops. Then the winter freeze came early. This led to food shortages across the continent. It wasn’t so bad in France, which had plenty of domestic agriculture, much of which was mechanized, and also access to imported food. The price of butter in France in 1917 was no higher than it had been in 1914. In contrast, butter had all but disappeared from dinner tables in Germany and Austria and Russia. France got through the entire war without introducing food rationing; indeed, per capita consumption of food in France actually *increased* over the course of the war. France is the only European combatant that
can make that claim, although I should point out that the French government did place a high priority on importing sufficient quantities of food to prevent shortages. The French government well understood from their nation’s own history that hunger breeds political unrest.

The Lloyd George government will introduce food rationing in Britain in 1917, but was able to keep the population reasonably well fed. Britain has the world’s largest merchant fleet, and it is shipping in huge quantities of food. Giant cargo ships bring grain from Canada and the United States, modern refrigerated freighters supply beef by the ton from Argentina and Australia. Still, Britain will see an increase in its infant mortality rate, and civilian mortality in general will also rise. It doesn’t help that so many British doctors have been called to the front.

The neutral nations prospered from the demand for foodstuffs from the Allies. Farmers in nations like the Netherlands and Denmark and Sweden that were in a geographical position to sell to the Central Powers likewise prospered. But the demand for food exports raised domestic food prices, and during the winter of 1916-17, food riots broke out in major cities in the neutral nations, including Amsterdam and New York City.

The situation was harder in the Central Powers, owing to the British blockade, and the winter of 1916-17 will go down in German history as Steckrübenwinter, the Turnip Winter. Even before Turnip Winter hit, food was heavily rationed in Germany. Shortages of flour had led in 1915 to the introduction of K-Brot, or “K-bread.” The “k” stood for Kartoffeln, potatoes, because it substituted potato flour for some of the wheat flour. Later, it would be rebranded as the more patriotic-sounding Kriegsbrot, war bread. When potatoes grew scarce, the recipe was revised further to include turnip flour, or whatever was at hand, including the euphemistically named “tree flour,” that is, sawdust.

Coffee was impossible to get, so a substitute was made from chicory. When chicory became unavailable, it was made from beets. When beets became unavailable, it was made from tree bark. Substitute foods like this were designated ersatz, which is simply the German word for “substitute” or “replacement,” but because of these extreme wartime measures, the word has taken on a connotation of an inferior replacement, one of poor quality, both in German and in English.

There was hardly any milk and the egg ration was one per week per family, which usually went to papa, on the argument that he was the one who most needed to stay strong. Meat all but disappeared from store shelves. When you did find it, it probably wasn’t as advertised. The “pork” on sale was more likely to be dog meat and yesterday that skinned “rabbit” hanging in the shop window was probably someone’s pet cat. It’s best not even to ask what they were putting in the sausages.

Wives and mothers would sleep on the sidewalk all night, sometimes with their children by their sides, for the privilege of being first in line when the grocery store opened in the morning. By 1916, German civilians carried twelve different ration cards.
Coal and oil for lamps were in short supply, and by early 1916, visitors were remarking how dark Berlin got after sundown. And in Berlin in the winter, it starts getting dark at about 4:00 in the afternoon. There wasn’t enough coal to heat homes, let alone theatres, music halls, or churches. In Austria, by decree, homeowners were only permitted to heat one room in their house, which resulted in an epidemic of burst water pipes. In Germany, special heated shelters were opened as refuges for the elderly who couldn’t afford heat in their own homes. Schools closed because they couldn’t be heated. Parents sent their idle children to the rail yards to search through the stones on the roadbeds for lumps of coal that might have fallen off the trains.

Then the rains and the frosts of autumn 1916 destroyed much of the potato crop and made a bad situation even worse. Hence, “Turnip Winter,” as the humble turnip replaced bread and potatoes in the German diet. No one likes turnips, of course—except for Mrs. History of the Twentieth Century—and no one regards them as fit for anything but animal feed—except for Mrs. History of the Twentieth Century—so for many German civilians, this was rock bottom. The German government distributed cookbooks featuring inventive recipes for turnips, like turnip jam, which might have tasted better if there had been any sugar available to put into it. There wasn’t, and people said the stuff tasted like mechanic’s grease, and turnip soup, which was derided as Eselpiss, a German word that means exactly what it sounds like.

Food consumption in Germany was about 2200 calories per person per day in 1916, which is enough to live on. But that number would plunge to 1000 calories per person per day over the Turnip Winter and only bounce back to about 1500 by the summer of 1917. And the situation was even worse than it sounds, because food distribution was far from equitable in autocratic Germany. Hindenburg and Ludendorff, who were now in charge of the war effort, ate like, well, like a Kaiser. Army officers got first pick of the best food, not to mention what could be plundered from occupied territories.

The rank and file soldiers ate poorly of K-Brot and the like, but they still got more than civilians did. It’s touching that, in spite of the shortages, many German families scraped together food parcels to ship to their loved ones at the front. It got to the point that the High Command sent out a directive asking German soldiers to please discourage their families from sending them food.

The tragedy of the British food blockade is that it was meant to starve the German Army, but of course in any war the soldiers get fed first. It was the civilians who suffered, and among the civilians it was those of the lowest social standing, those least able to fight for their rights, who suffered the worst. That means children, seniors, and the disabled. Something like 10% of the population of German mental institutions died over the Turnip Winter, and children succumbed by the tens of thousands. Many more suffered from malnutrition and vitamin deficiencies. All in all, it is estimated that 100,000 to 200,000 German civilians died from the hardships of Turnip Winter.

[music: Piano Concerto No. 2]
The German public faced these hardships stoically. It was all in the name of winning the war, after all. The German government did its part to tamp down unrest by blaming all this civilian suffering on the British blockade. This was only partly true, but it was a lot easier to blame the British than to own up to inefficiency, maladministration, and corruption.

And that brings us to Paul von Hindenburg and Erich Ludendorff. When we last met them, it was just after Erich von Falkenhayn had been dismissed and the successful duo had taken over the position of chief of staff. Actually, they were two people and only one person could be chief of staff, so that was Hindenburg. Ludendorff maintained his position as the junior partner in the partnership. They wanted to make him second chief of staff, but Ludendorff rejected that title in favor of one he made up for himself: First Quartermaster General.

Ludendorff was really the brains of this outfit, a fact that was recognized even at the time, which raises the question of why Ludendorff wasn’t running the show all by himself. There are reasons. One was that Hindenburg was an aristocrat, someone who could put “von” between his names. He was an old-school Prussian Junker, from the families that had made the German Army great. He looked and sounded like a military leader. By all accounts, Hindenburg had the better people skills. Ludendorff was abrasive and was famous for being one of those bosses who sends out reams of prickly memos all day long. And nobody likes that.

Hindenburg and Ludendorff took over after Falkenhayn was dismissed following the entry of Romania into the war. Dealing with the Romanians and their incursion into Hungarian Transylvania was the first order of business, but as we have already seen, that proved simple enough. The Romanian Army was 600,000 strong, but its advance into Hungary did not survive contact with German forces, and the Romanians were quickly driven into retreat.

Once the situation on the Romanian frontier was under control, the duo turned their attention to the Western Front, even taking a tour of the front in the autumn of 1916. What they found surprised and disheartened them. For the past two years, their role had been to dismiss the importance of the West and press Falkenhayn to send more units east. Now, for the first time, they were facing the reality of the Western Front.

Their first action was to end the Verdun offensive, which clearly was bleeding the German Army white without accomplishing anything like what Falkenhayn had hoped for. The Allied forces in the West were tough, well equipped, and fought fiercely. German soldiers fought well enough as individuals, but Ludendorff deemed the Army as a whole “fought too doggedly, clinging too resolutely to the mere holding of ground, with the result that the losses were heavy.” German production of arms and munitions had been impressive, compared to other belligerent nations, but it had to be improved. Ludendorff wrote, “Enormous errors have been made, and it is high time to put things right.”

The Great War was already a kind of warfare that no one had ever seen before, one that mobilized more people, more resources, and a larger share of the economies of the combatants
than had ever been seen before. The war was consuming something like 70% of the gross domestic products of the nations involved.

Ludendorff proposed to do more. He sent the minister of war a memo proposing a 100% increase in the production of ammunition by spring of 1917, along with a 300% increase in the production of artillery and machine guns, and substantial increases in airplane production. And the military command also wanted control over the distribution of vital raw materials, especially coal and oil. The interior minister protested. “One can command an army, but not an economy.” But Hindenburg and Ludendorff aimed to do exactly that.

The military already claimed the power to conscript, that is, to compel able-bodied young men to join the military and help fight the war. Now, Hindenburg and Ludendorff proposed that every German subject between the ages of 16 and 50, men and women alike, should also be liable for conscription as needed. “There are thousands of childless soldiers’ wives who are only a burden on the finances of the state,” they told the Chancellor, Bethman-Hollweg. Drafting women proved to be too much even for the Reichstag, but in November it did approve a law making every man in Germany between the ages of 17 and 60 liable for service wherever the military sent him, whether that was into the trenches, or into an armaments factory, or to the country to work the fields, or into a government office to help file paperwork. Whatever he was capable of, and whatever the Empire needed him to do. Refusal to go where directed or to do the work assigned to you could be punished by imprisonment.

And it wasn’t only German subjects. Hundreds of thousands of people from German-occupied lands, Belgians, French, Poles, and others, were shipped into Germany, packed in boxcars with no food or toilet facilities—what does that remind you of?—and forced to labor on German farms and in German factories, in violation of international law, it should be noted.

You could say at this point that Hindenburg and Ludendorff—okay, just Ludendorff—had engineered a bloodless coup and assumed something like dictatorial powers in Imperial Germany and the occupied territories.

That might make you wonder, what about the actual titular German Emperor, Kaiser Wilhelm II? Well, he was living the good life in his palace in Potsdam, taking tea, reading novels, going on hunting trips, and occasionally taking tours of what he liked to call the “front,” although he was actually well behind the front lines and merely consulting with the highest ranking commanders. Germany was an autocratic state, and Wilhelm was the autocrat. Under the German system, the military did not answer to the civilian government, though the civilian government did have to authorize the funds to pay for the military. But the military answered directly to the Kaiser and to no one else. The highest ranking officers of the military were aristocrats. We’ve already seen for example that one of Germany’s armies on the Western Front was commanded by Prince Rupprecht of Bavaria and another by Crown Prince Wilhelm, the Kaiser’s eldest.
It was normal in Germany and in Austria and Russia as well to see aristocrats placed in command of military formations. Of course, everyone understood that simply being born into the right family did not by itself make one a soldier, so in practice, these aristocratic commanders had chiefs of staff who tended to be commoners and career officers and had the training and experience the aristocrats lacked. When Crown Prince Wilhelm went off to war, his father told him to listen carefully to his chief of staff. “Whatever he advises, you must do.” Similarly, the commander in chief of the Austrian Army was Archduke Friedrich, but the real commander was the chief of staff, General Conrad. In Russia, the Emperor had taken personal command, but General Alexeyev was the real commander. And of course, there’s Hindenburg and Ludendorff, who as you can see follow the same pattern.

You can’t fault Kaiser Wilhelm for not getting more involved in commanding the army. Whatever his title, that wasn’t his training, and it would have been foolish for him to try, just as it was foolish for the Russian Emperor Nikolai to try. And in fact, those of you who are long-time listeners of this podcast may have been wondering why it’s been such a long time since I gave out a Kaiser Wilhelm II Award. Not since before the war, in fact.

Well, first of all, you can’t really blame the war on Kaiser Wilhelm. Not that the Allies won’t try, but he was not among the European leaders who created the July Crisis. In fact, as you may recall, his subordinates timed it so he would be on vacation when the crisis broke, because they feared he would try to stop it. And once the war began, Wilhelm wisely refrained from meddling too much in the management of the German military. So in judging him as a wartime leader, I’ve been inclined to give him a pass so far.

But he’s still the same old Kaiser Wilhelm, still as impetuous and feckless as ever, too much the strutting peacock and not enough the rock of the nation that his subjects might have wished for during the Great War, and as the war went on, the Kaiser’s mood darkened. On some level, he must have seen how it would end. He disliked Ludendorff, but feared making an enemy of Hindenburg, who was by this time certainly a more popular figure in Germany than Wilhelm himself was, and so accepted Hindenburg and Ludendorff as Germany’s wartime leaders. By the end of 1916, he is retreating from the war effort, isolating himself at his palace at Potsdam and on his hunting estates. Apparently, watching the course of the war was now more than he could bear.

The German people endured the privations of the war and made do with limited food rations. Eventually, the Kaiser’s advisors suggested to him that he was supposed to be the leader of the nation, and perhaps it would help wartime morale if he would move to Berlin, give a few inspiring speeches, and make a show of sharing the burdens along with his suffering subjects, as opposed to going out into the country to shoot another stag. Wilhelm refused. And here, I think, is the point where I can no longer give him a pass.
And so, for secluding himself in his palace and taking pleasant excursions to the countryside while his subjects were starving, this week’s Kaiser Wilhelm II Award for Making an Ass of Yourself goes to Kaiser Wilhelm II.

[sound effects: bell and cheers]

Anyway, his commanders and ministers may have been shunting him aside, but the Kaiser hasn’t been exactly reluctant to surrender not just control of the war but responsibility for it, to the extent anyone titled “Emperor” can give up responsibility for the war their Empire is fighting. And that abdication of responsibility extended even to providing inspirational or moral leadership to his subjects. In short, Kaiser Wilhelm has checked out.

[music: Piano Concerto No. 2]

By the end of 1916, after the Romanian threat was neutralized and the team of Hindenburg and Ludendorff had taken their tour of the Western Front, it was time to begin serious strategic planning for 1917, and Hindenburg and Ludendorff met with military and civilian officials on January 9 to review the situation. They were forced to confront some difficult truths. Aerial reconnaissance had already revealed that the Western Allies, the British and the French, were preparing for yet another large-scale offensive in the coming year. Russia, which a year ago seemed on the brink of revolution or worse, had surprised everyone by roaring back in 1916 and almost knocking Austria out of the war. The consensus view on the German side was that Germany could no longer bank on a Russian collapse anytime in the near future. This was terribly ironic, since you know and I know that Russia is in fact just weeks away from revolution, but—shh!—nobody in Berlin has any idea.

Hindenburg and Ludendorff also concluded that the exhausted German Army was no longer capable of any sort of large-scale offensive on the Western Front in 1917. The best that could be hoped for was to hold the line. Germany was fighting a war of attrition.

Of course, this is what Falkenhayn had been saying for over a year now. But Hindenburg and Ludendorff still had some criticisms over how Germany has been conducting the war in the west. Ever since the front line stabilized, both sides have been fighting bitterly to keep hold of every last bit of territory on their side of the line. Any successful enemy attack on either side was always met immediately with a counterattack in force, meant to drive the attacker back behind their original front line.

Hindenburg and Ludendorff favored a more flexible approach that further developed the concept of a defense in depth. Under this approach, German soldiers would not necessary resist so strongly the initial Allied thrust into German territory. Rather than a do-or-die approach right at the front line, the attackers would be lured into a zone into which German machine guns and heavy weapons were already prepared to fire. Any obstacles the intruders might use for cover would be removed or razed. In this way, an Allied advance would simply draw enemy soldiers
into a killing zone. If the Allies tried to send in reinforcements to secure the zone, as was their standard procedure, so much the better. The reinforcements would be cut down in their turn, until the Allies would have to choice but to withdraw what was left of their forward units.

German units on the Western Front were ordered to rebuild their defenses in accord with this new strategy. More controversially, Hindenburg and Ludendorff began planning a withdrawal from some of the Germans’ most exposed positions at the likely site of the coming Allied offensive. This would be done in secret.

This new strategy was quite contrary to the German way of thinking about warfare. No German unit had voluntarily given up an inch of ground since the war had begun. Some commanders objected that to voluntarily surrender ground that had been taken and held at a terrible cost in German lives would devastate German morale. But Hindenburg and Ludendorff were insistent. The withdrawal would be to stronger positions, easier to defend at less cost in lives. It would also shorten the Western Front considerably, enough that it would free up 14 German divisions, which might be more useful on the Eastern Front.

That would help, but this was no way to win a war. Hindenburg and Ludendorff had all but conceded there would be no gains in the West in the foreseeable future and the outlook in the East was only slightly better. The brusque Allied response to President Wilson’s latest peace initiative suggested they were in no mood to negotiate. What Germany needs here is a wild card.

Well, as a matter of fact, said the chief of the admiralty staff, Admiral Henning von Holtzendorff, I happen to have such a card right here up my sleeve. The U-boat fleet.

The U-boat option has been furiously debated for two years now, as we have seen in previous episodes. There were those, mostly in the Navy, who were convinced that the U-boats could knock Britain out of the war. There were others in the Navy who were more skeptical. The Army commanders were dubious, too. And the civilian leadership, especially the Chancellor, were dead set against it. The German government had spent months in tedious, agonizing negotiations with the government of the United States to keep the US neutral. A delicate understanding had been reached, and the last thing they wanted was to see their careful handiwork blown out of the water by a renewed U-boat offensive.

It wasn’t only the United States that was a concern. Other neutral nations might object, too. Given how dire the food situation has gotten, how much worse might it get if the Netherlands or Denmark or Sweden took umbrage and decided to boycott Germany?

German public opinion was very much in favor of striking back. Wasn’t the food shortage in Germany the result of the British blockade? Well, not entirely, but partly, though most Germans took it as a given that the British were behind their suffering. Why shouldn’t Germany take revenge upon the nation that had inflicted all this upon her? Because the Americans won’t like it? Give me a break.
The last time this topic had been seriously considered in the German government was in early 1916. At that time, the deciding factor had been that Germany’s U-boat fleet simply hadn’t been big enough to make a plausible threat.

But much has changed. Germany built a hundred U-boats in 1916, and German shipyards were turning out new ones at the rate of two per week. Even after losses are taken into account, Germany now has about 120 U-boats in service, about a third of which can be on patrol at any given time. Add to that the fact that the new U-boats are better designed and equipped for merchant ship hunting. They have longer ranges, long enough to patrol the coast of North America.

After the Battle of Jutland failed to strike the hoped-for decisive blow, even Admiral Scheer, the commander of the High Seas Fleet, began to accept the arguments of the U-boat proponents and endorsed the idea himself. And as we’ve seen, the bad harvests and harsh winter of 1916-17 have led to food and coal shortages and price increases worldwide. Even the British are experiencing shortages. Surely now is when they are at their most vulnerable.

The Admiralty estimated that even under the current, restrictive rules of engagement, German U-boat raiding sank over 400,000 tons of Allied shipping in November, and again in December. (These numbers were actually inflated, but not by too much.) What would the U-boats be capable of, if they were permitted to slip the leash the American agreement had put them on? The Admiralty estimated 600,000 tons of shipping could be sunk every month, a rate of loss Britain’s already stretched shipyards would be unable to match. Six months of losses on that scale, and Britain would be on her knees.

It wasn’t just that food in Britain was in short supply. Britain’s allies, Italy and France, were dependent on coal imported from Britain, imports that might be cut off if Britain gets hungry enough. By the way, Britain was also shipping coal many other places, most notably Argentina, Brazil, and Uruguay. The trains need to keep running in South America too, so that Britain could be supplied with beef. Yes, Britain’s trade network was complex and delicate. What would happen if someone took a crowbar to it?

But von Holtzendorff and the U-boat advocates cautioned that this current propitious moment would soon pass. Once the 1917 harvest begins to come in, the food shortages will begin to ease. That would be around August 1. So the unrestricted U-boat campaign would have to begin no later than six months before that date. That would be…let me see…carry the two…take away seven…February 1, 1917.

By January, Hindenburg and Ludendorff had become convinced on the necessity of unrestricted submarine warfare. But no one had a good answer to the thorny question of how the neutrals would react, and in particular, the Great Neutral, the United States. The two commanders did not regard America’s opposition to U-boat warfare as a serious problem, though. First of all, they argued, public opinion in the US was clearly turning against Germany anyway. Did you see what
their recent presidential election looked like? Chances were good that the US would soon be joining the Allies in the near future in any case. Second, if the past two and a half years had proved anything, they had proved that the full fruits of the productive farms and factories of the United States were already at the disposal of the British and the French. How much worse could it get? It could only get better, if the U-boats could disrupt the flow of America’s bounty.

There remained the concern that the United States might deploy her army to the Western Front. But Ludendorff did not take that threat seriously. At this moment, the United States Army is the seventeenth largest in the world, just behind Serbia’s and just ahead of Iran’s. Ludendorff estimated it would take the Americans more than a year to train and deploy five or six divisions, scarcely enough to be noticed amid the one hundred plus British and French divisions already on the Western Front. And any American soldiers would have to be transported to Europe in ships. Where would those ships come from, after Britain’s merchant fleet suffers the expected losses? The US merchant fleet was much smaller and would be just as vulnerable to the U-boats, leaving the American Army stymied and impotent.

There was actually more concern about the reactions of the smaller and closer neutrals, nations like the Netherlands and Denmark. But Hindenburg and Ludendorff argued that the ease with which Germany had dispatched Romania, with its larger army, in spite of the fact that Romania’s entry into the war had caught the Central Powers by surprise, was a potent lesson to other small countries about the dangers of adopting a hostile attitude toward Germany.

Even Betthman-Hollweg gave in at last. “[I]f the military authorities consider the U-boat war essential, I am not in a position to contradict them,” he said. Getting the Kaiser to sign off on the new policy was a mere formality. Admiral von Holtzendorff told him, “I give Your Majesty my word that not one American will land on the continent.”

In spite of Betthman-Hollweg’s cave, Hindenburg informed the Kaiser that he could no longer work with him and the Chancellor had to go. Kaiser Wilhelm replied that now was not the time to change chancellors, with so such else going on, but—spoiler alert—Betthman-Hollweg’s days are numbered. Meanwhile, the word went out to German diplomats everywhere to inform the neutral nations on January 31 that unrestricted submarine warfare against all merchant ships of any nation bound for any Allied port would begin the following day.

We’ll have to stop there for today. Thanks for listening, and thanks to Wolf for making a donation and thank you, Dave, for becoming a patron of the podcast. Donors and patrons help keep the lights on and the bits flowing around here, so if you have a few marks or dollars or pounds or euros to spare and would like to help out, visit the website, historyofthetwentiethcentury.com and click on “Help the Podcast.” And I thank you in advance.

I’m taking next week off because I have some traveling to do, but I hope you’ll join me in two weeks’ time on The History of the Twentieth Century as we pick up the story with the consequences of the Germans’ decision to restart unrestricted submarine warfare. That’s not
going to go down well in the United States, and you know what else isn’t going to go down well in the United States? A little diplomatic cable that history likes to call the “Zimmerman Telegram.” That’s in two weeks’ time, on *The History of the Twentieth Century*.

Oh, and one more thing. Because of the coal shortage, and the dark winter of early 1916, once spring came and the sun rose earlier in the morning, the German government experimented with a new idea to save on coal and oil by maximizing the efficient use of daylight. On April 30, 1916, Imperial Germany introduced what the Germans would call *Sommerzeit*, “summer time” in English, and what we Americans now call daylight saving time. It wasn’t so much about saving lamp oil, it was about addressing the fact that there just wasn’t any to be had. The United Kingdom would adopt summer time in imitation of Germany just three weeks later, and the idea would soon spread to the United States, where, for reasons I cannot fathom, it is still in use today. Thanks a lot, Kaiser Wilhelm.

[music: Closing War Theme]

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