

The History of the Twentieth Century

Episode 41

“Fear God and Dread Nought”

Transcript

[music: fanfare]

In February, 1906, the Royal Navy launched its newest battleship, *HMS Dreadnought*, and everything changed. *Dreadnought* was faster, had better armor, and bigger guns than any other ship. Oh, yeah, and a bigger price tag, too.

In the blink of an eye, every other battleship in every other navy in the world became obsolete, and the response, across the world, was a series of naval arms races. No one wanted to be caught with fewer dreadnoughts than their enemy, no matter the cost. And the cost was very high.

Welcome to the History of the Twentieth Century.

[opening theme]

Episode 41. Fear God and Dread Nought.

HMS Dreadnought was such a revolutionary ship that the very name “dreadnought” became a synonym for “battleship.” Today, when we talk about the history of naval warfare, we describe any battleship built before her as a “pre-dreadnought” battleship.

In fact, the word “dreadnought” has become so generic, it’s sometimes easy to forget that it is a name. It means “dread nought,” as in, “fear nothing.”

You gotta love Royal Navy ship names. *Audacious*, *Superb*, *Conqueror*, *Valiant*, *Revenge*, *Invincible*, *Inflexible*, *Indefatigable*, *Furious*, *Victorious*, *Implacable*, *Terrible*, and, my personal favorite, *Vindictive*.

Two episodes ago, we talked about battleships. We saw how the number of battleships became the measure of a nation’s sea power. We saw how battleships of the era were equipped with a mix of different-sized guns for different ranges.

But there were two problems with battleship design. One was that they were vulnerable to torpedoes. One good torpedo hit could sink the mightiest battleship of the day.

And the naval battles of the Russo-Japanese War had exposed another problem with battleship design. The 12” guns were so big and had such long range and were so powerful, that even

though they seldom hit, when they did, the hits were usually devastating. In fact, during the war many ships were sunk or disabled at long range by the big guns before they ever got a chance to get in close and use the medium guns.

So by the end of that war, the naval designers of several countries, particularly Britain, the United States, Japan, and Italy, began to see the advantage in equipping a ship with big guns only. The smaller guns didn't seem to be worth much, plus there is a logistical and training advantage in a ship with only one size of gun. You only needed to stock one size of ammunition, and you only needed to train the crew on one type of weapon.

And so, *HMS Dreadnought* came to be. She had ten 12" guns, in five turrets of two each. And the turrets were laid out so that she could fire eight guns broadside on either side, which was twice the firepower of any broadside of any other ship, and she could fire six guns forward, which was triple the firepower forward of any other ship. She had separate watertight compartments that could be closed up in an emergency, meaning it would take more than one torpedo hit to sink her. And that wasn't all. She was also more heavily armored than any battleship built before her. She had 27 3" guns capable of fending off those pesky torpedo boats. And she was the first warship powered by a steam turbine engine. At 21 knots, she was faster than any other battleship in the world.

She was a quantum leap in naval design. *Jane's Fighting Ships* estimated that *Dreadnought* was worth 2 or 3 of any other battleship afloat. And the Royal Navy had built her in a matter of months. The message was clear. The Royal Navy was still the greatest navy in the world, and no one was going to take the crown away from her.

The Americans were working on similar ideas, and the US launched its first dreadnought, *USS South Carolina*, in 1908. That same year, Germany launched *SMS Nassau*, its first dreadnought. The Japanese were ready to equip their navy with dreadnoughts, too, although the Japanese government first had to get itself out from under the debt it had racked up during the war with Russia, which slowed down the naval modernization. Once the Russo-Japanese War was won, Japanese military planners began to look upon the United States as Japan's new rival, and biggest threat, and began building a fleet with an eye to taking on the US Navy. But this would take time. The first Japanese dreadnought, *Kawachi*, was not launched until 1910, because Japan needed the time to pay down some of those bills first.

The introduction of dreadnoughts intensified the naval race between Britain and Germany, which I'll get back to. It sparked a Japanese competition with the US.

In the Mediterranean, France, Italy, and Austria got into a dreadnought race. But the strangest arms race of this era was the one that broke out in South America.

[music: "Canção do Exército"]

There were a number of wars in South America during the 19th century, because the frontiers of many of the South American states were in dispute. There was, for example, the War of the Pacific in 1879, in which Chile gained what is today its north at the expense of Peru and Bolivia, and making Bolivia into a landlocked country along the way. Chile and Argentina also had conflicting claims over Patagonia, the southernmost region of South America. At this time Patagonia was still a frontier land, still ungoverned and occupied by native Patagonians, just as some areas of the American West at this time were still ungoverned and occupied by Native Americans.

While Chile was occupied with its conflict in the north, Argentina used its military to assert authority over Patagonia, and ended up in control of the lion's share of that region. But Argentina also had to face conflict with Brazil.

Brazil was a nominal Empire during much of the 19th century, effectively a constitutional monarchy. In 1889, slavery was finally abolished in Brazil, and shortly after that, an Army coup overthrew the Empire and established what was officially a Republic, although it was more of a military government. The Navy was thought to have Imperial sympathies, and so it was allowed to languish over the next decade.

Meanwhile, after Chile's victory in the War of the Pacific, that country had the largest navy in South America. Rather than reduce its navy, following the end of the war, Chile continued to expand it, by purchasing ships from Europe. This made the Argentine government nervous, given Chile's claims in Patagonia, and Argentina began a naval expansion of its own.

These two countries, along with Brazil, were making a lot of income off of foreign trade, mostly with the United States and Britain, which made having a strong Navy important, in order to protect that trade in the event of war. The dispute over Patagonia grew tenser as the 1890s progressed, and Argentina and Chile continued to purchase ships until it reached the point that both countries were heavily in debt, and European lenders were no longer willing to provide them with loans for naval expansion. Then the British government intervened and offered to mediate. The offer was accepted, and the British helped the two countries negotiate a boundary agreement, which they signed in 1902. The boundary agreed to in that negotiation remains the boundary between the two countries to this day. Under this agreement, Chile and Argentina also agreed not to purchase any new warships for five years. Ships that the two countries had already ordered and were still under construction in Europe would, under this agreement, be sold to other navies instead – the British and Japanese navies, as it turned out.

And that might've been the end of the story right there, except that the government of Brazil was looking at the large navies to its south with alarm. Brazil was also a nation dependent on foreign trade. By population, it was twice the size of Chile and Argentina put together, and yet it was a distant third in terms of naval power. But Brazilian trade was booming. There was rubber, which, as we have seen, is in high demand following the invention of bicycle tires, and then automobile

tires. Tens of thousands of Native Americans in the tropical regions of the Amazon were enslaved and forced to collect rubber in the jungle under horrific conditions, much as in the Congo. Our old friend Roger Casement, who now has a glowing reputation following his documentation of King Leopold's crimes in the Congo, was now sent to the Amazon, where he did it again, exposing and documenting abuse of the natives of the Amazon.

But of course, the rubber boom brought a lot of wealth to Brazil. And then there was coffee. Coffee is native to Africa, and had to be introduced to the New World. By the 19th century, Brazil became the world's leading coffee producer. The fact that Brazil still had slaves working the coffee plantations probably had something to do with this, and Brazil's role as a major producer and exporter of coffee has something to do with how long it took slavery to be abolished there.

At the beginning of the 19th century, coffee was still an occasional luxury for most people. But over the course of the 19th century, the combination of a rising middle class in Europe and America plus large-scale coffee production in Brazil plus sharply increasing global trade means that coffee becomes a staple food in the Western world by 1900.

It was also very, very good for the economy of Brazil. At the beginning of the 20th century, Brazil is producing more than three quarters of the entire world supply of coffee. In 1905, flush with all this coffee and rubber revenue, the Brazilian government allocated money to purchase 24 new naval vessels, including three battleships.

But the Brazilian government suddenly ordering up an instant navy alarmed everyone else with interests in the region. The British and American governments both opposed the idea, and pressed Brazil to scale back its naval ambitions. But the Brazilian government was determined, and in particular, was suspicious of American attempts to limit the size of its Navy, given the Roosevelt administration's enthusiasm for intervening in Latin American affairs, as we have already seen, and are going to continue to see.

Now, *HMS Dreadnought* was launched just weeks after Brazil ordered those battleships, and the Brazilian government quickly revised its naval expansion plan around the idea that these three new battleships were now going to be two new dreadnoughts, with an option for a third.

This news created something close to panic, not only in the South American region, but worldwide. In South America, Argentina and Chile quickly agreed to end their naval freeze. Because Brazil's three dreadnoughts, it was thought, would be capable of annihilating the fleets of either country, or both, not to mention devastating their economies by shutting down all foreign trade. The Argentine government was so alarmed that in 1908 it debated giving Brazil an eight-day ultimatum, before any of her new ships could be completed, that Brazil must either sell one of its two dreadnoughts under construction to Argentina, and thus put Brazil and Argentina into parity with one dreadnought each, or else Argentina will invade Brazil now, while

it still can. But the discussion was made public, and the embarrassed Argentine government had to drop it.

Argentina and Chile, after much deliberation, ordered up two dreadnoughts each for themselves. Argentina's would be built in the United States; Chile's would be built in Britain, like the Brazilian dreadnoughts.

Once these two Brazilian dreadnoughts were laid down, Brazil became just the third country in the world, after Britain and the United States, to have dreadnought battleships under construction. That's ahead of Germany, Russia, France, or Japan. And with 12 12" guns each, the Brazilian dreadnoughts were at the time the most powerful warships in the world.

The news that Brazil was buying dreadnoughts in 1906 hit at least as hard, maybe harder, than it would today if Brazil announced that it was acquiring nuclear missiles. To many military analysts around the world, it seemed implausible that Brazil could possibly want all this firepower for itself, and rumors began to circulate that this was a straw purchase. That Brazil was simply going to hold the ships for another power, and then transfer them at some future date, possibly after the outbreak of war. The Brazilian government repeatedly denied this, and insisted that it only wanted the ships to assert its own rights as a sovereign power, but not everyone was convinced. In the British House of Commons, government ministers were closely questioned by opposition MPs who believed that Britain was being suckered, and that Brazil was fronting for a conspiracy to hijack Britain's most valuable military technology. The government insisted that it had no reason to question Brazil's sincerity.

Brazil finally received delivery of its first two dreadnoughts in 1910: *Minas Geraes*, which is the name of a Brazilian state, and *São Paulo*, named after a Brazilian city that lies about 850 km northeast of Porto Alegre.

As it would turn out, both battleships would be involved in a mutiny just months after entering service, a mutiny known as the Revolt of the Lash. As I mentioned, slavery had only been abolished in Brazil in 1889, so that was 21 years ago. At this time, most common sailors in Brazil's navy were African-Brazilian, and most officers were white. The ethic of the coffee plantation carried over into the navy, where long hours, low pay, brutal working conditions, and harsh corporal punishment including the lash, were still the norm.

So even in 1910, Brazilian naval officers regarded their sailors as basically slaves. Many of them had been born into slavery, and just about all of them were the children of former slaves. The fact that the end of slavery had somehow not penetrated into the Brazilian Navy of course was presented by Brazilian sailors. And in 1910, they began planning to strike back. On November 16th of that year, one of the sailors aboard *Minas Geraes*, an African-Brazilian named Marcelino Rodrigues Menezes was flogged 250 times. The rest of the crew was forced to watch as the lash tore the flesh off the sailor's back. The flogging went on long after Menezes lost consciousness.

That was the last straw. These sailors had had enough. On the 22nd, the crews of the two dreadnoughts mutinied. They demanded better working conditions, an end to corporal punishment, and an amnesty for the mutineers. Senior naval officers drew up plans to recapture the dreadnoughts, but the Brazilian National Congress quickly passed legislation meeting the mutineers' demands, and the rebellion ended.

I mentioned that Argentina and Chile had ordered two dreadnoughts each. These ships were not ready for delivery until after the Great War broke out. That wasn't such a big problem for Argentina, since her ships were being built in the United States, which was neutral, and those were delivered in 1914 and 1915. Chile wasn't so lucky. Her ships were being built in Britain, and when the Great War broke out, the British government became eager to get as many ships as it could get its hands on, and it bought the unfinished dreadnoughts from the Chilean government. And so these ships served in the Royal Navy instead, and all the Chilean government got was its money back.

Come to think of it, maybe maybe that makes Chile the luckiest one of them all.

[music: "Jack Tar March"]

With all due respect to these other countries involved in these other naval arms races, the most consequential one was the race between Britain and Germany. To tell the story of this race, I need to tell the story of two men. You've already met Admiral Alfred von Tirpitz; let me introduce you to Admiral Sir John Fisher.

The greatest British naval genius of his generation was John Fisher, frequently called Jackie Fisher. He was born in Ceylon in 1841. His father was an army officer. When he was thirteen years old, his godmother got an admiral friend of hers to nominate young Jackie as a naval cadet. He took the test aboard *HMS Victory*, formerly Lord Nelson's flagship, at Plymouth. The written portion of the test consisted of Jackie being handed a pen and paper and being asked to write out the Lord's Prayer. And then there was the physical: a doctor had Jackie strip naked and jump over a chair. After he got dressed again, they told him he was now in the Royal Navy and handed him a glass of sherry. And no, I am not making any of this up.

He served first aboard *HMS Calcutta*, where thirteen-year old Jackie fainted after watching eight men flogged on his first day. He rose through the ranks and was appointed captain of *HMS Bellerophon* in 1877, at the age of 36. He became friends with the Prince of Wales, the future King Edward VII, then came to the attention of the Queen. He became an aide-de-camp to the Queen in 1887, and a rear admiral in 1890. He rose to Third Sea Lord, then Second Sea Lord, and, in 1904, First Sea Lord. Lord Salisbury chose him as naval delegate to the Hague Conference of 1899, as we saw back in episode 30, where he fiercely opposed any limitation on the Royal Navy.

We talked all the way back in episode 11 about how ossified by tradition the British Army had become. The Royal Navy was a bit hidebound, too. But Fisher was a stickler for efficiency, and drove the Navy to find ways to do everything faster and cheaper. He was an early proponent of torpedoes, and of torpedo defense. He modernized officer training. And it was Fisher who conceived of *HMS Dreadnought*, and insisted that the ship be built in under a year, to demonstrate to the world, and especially to Germany, that Britain was still the world's pre-eminent naval power, and she intended to keep things that way.

The problem with modernizing the Navy was that it was expensive. Consider *HMS Victory*, Lord Nelson's flagship and the ship on which young Jackie Fisher proved his ability to jump over a chair naked. *Victory* was a wooden ship of the line. She was launched in 1765, meaning she was 40 years old when Nelson fought the battle of Trafalgar. She was retired from active service when she was 59 years old. And while it's always a bit speculative to try to convert eighteenth-century costs into twenty-first century equivalents, the cost to the Royal Navy to build *HMS Victory* was something like £8 million in today's currency. The early pre-dreadnought battleships of the 1880s cost about £90 million each. By 1905, it cost the Navy something like £120 million each to build the last of the pre-dreadnought battleships. *HMS Dreadnought* herself cost something like £160 million in today's money. And she was scrapped in 1921, after fifteen years' service. So in other words, roughly speaking, she cost about twenty times what *HMS Victory* cost, and was in service for barely more than a quarter of the time.

Yikes. Navies are expensive, and they are getting more expensive all the time. And new technologies are making older ships obsolete faster than ever. You wonder how long Britain can keep this up, he said ominously.

One way Fisher controlled costs was by scrapping some obsolete ships. The thing is, we've seen how naval combat ships are getting obsolete sooner and sooner. The Royal Navy had dozens of old ships that wouldn't be worth much in a war anyway, and, as it turns out, old ships cost more to keep running than new ships do. So Fisher ordered 90 ships to be sold or scrapped, and an additional 64 mothballed. The admirals squealed like stuck pigs, but Fisher stood his ground, declaring the ships "too weak to fight and too slow to run away." He also called them "a miser's hoard of useless junk." You know, kind of like my attic. But the move saved the navy, again, in today's currency, hundreds of millions of pounds a year, more than enough money to buy a bunch of new dreadnoughts. So now you see how Fisher got his reputation for being tough, efficient, and thoroughly unsentimental.

Fisher was also, as I have said, a proponent of "Copenhagening" the growing Germany navy, meaning launching a pre-emptive strike to destroy it before it got too big and too dangerous to Britain. He proposed this idea to King Edward VII several times, but Edward would not approve it.

And Fisher was also a proponent of a new class of ship, one that carried the same set of heavy guns as a battleship, but forewent heavy armor for faster engines. These ships would be a cross between a cruiser and a battleship, and would come to be called, surprise, surprise, battlecruisers. The principle behind the battlecruiser is that she can outgun any ship she can't outrun, and outrun any ship she can't outgun. The British, German, and Japanese navies all got into building battlecruisers, but some other navies were skeptical, such as the US Navy that was fully on board with dreadnoughts, but saw battlecruisers as "eggshells armed with hammers." And, in fact, the battlecruiser concept will not pan out, although Fisher never gave up on his brainchild.

All these British naval innovations were aimed squarely at Germany, and were Britain's response to Tirpitz's naval expansion. Gone were the days when the British feared the combined French and Russian fleets descending upon them. Britain and France had an entente, and Russia, humbled by the Japanese...hm, you think they might be ready for an entente, too?

We'll get back to that. There were also three new rising naval powers in the world. But Britain had a treaty with Japan, and relations with the United States were never better. Only Germany was still seen as a threat.

So what is Tirpitz's response to *Dreadnought*? Tirpitz had gotten wind of the construction of *Dreadnought* months before the ship was publicly unveiled. He secluded himself at his getaway in the Black Forest and pondered the problem. Should Germany ramp up its naval expansion program even further, and start building dreadnoughts to match the British? Or was it time to fold, to give in and acknowledge that the British were going to have overwhelming naval superiority for the foreseeable future?

Before *Dreadnought* was launched, Tirpitz had met with the Kaiser, made his recommendation, and gotten Wilhelm's approval. Germany would continue the naval race, continue to expand its navy, and take on the challenge of the dreadnought.

As the German historian Holger Herwig says, it speaks volumes about the decision-making process in the government of Imperial Germany that this decision was made between Tirpitz and the Kaiser, with no other consultation. The commander of the High Seas Fleet was not there to give his view, nor was the admiralty staff, nor were representatives of the Treasury, to give their view on how Germany would pay for the new dreadnoughts, nor representatives of the Foreign Office, to give their view on how the acceleration of the naval arms race would affect Germany's relationship with Britain and the other great powers, or how the British would likely view this decision.

And so it was with the autocratic countries like Germany and Austria and Russia. Ministers reported directly to the Emperor, and major decisions were made like this, in one-on-one meetings.

We all know there was no way Germany could ever build a navy to match Britain's. So what was Tirpitz thinking? Well, the naval doctrine of the time held that to win against an enemy fleet you needed to have a 3:2 ratio of superiority. Obviously, Germany was never going to have a 3:2 advantage over Britain. But Tirpitz turned that ratio around, and reasoned that if Germany had a navy $\frac{2}{3}$ the size of Britain's, it would be enough of a deterrent, because the British could not attack the German Navy at less than a 3:2 ratio and be confident of victory. A defeat, or even a costly stalemate, would reduce the British navy to the point where it could no longer protect its far-flung imperial interests against other naval powers, powers like France or Russia or, who knows, maybe even the United States.

The Royal Navy couldn't take that risk, Tirpitz reasoned, and so would leave the German Navy alone. Also, in the event of war, the British would likely try to blockade German ports, and that would spread their navy thin, and give the German fleet opportunities to attack the blockades at times and places of its own choosing, where the German fleet would have numerical superiority.

In Tirpitz's mind, the greatest threat to the German fleet would be before it reached that magic level of $\frac{2}{3}$ the size of the Royal Navy. Because, faced with a rising German threat, the British might be tempted to make that Copenhagen-style preemptive attack that Jackie Fisher was always going on about, and that Tirpitz knew full well that Jackie Fisher was always going on about.

So, in Tirpitz's view, the risk of war would *diminish* as the German navy expanded, until the point that the British would not dare attack at all. What's wrong with this analysis is that...well, there's no one there from the Foreign Office to explain that the British will surely ramp up their own naval expansion enough to keep Germany in the danger zone for the foreseeable future. And there was no one there from the Treasury to talk about how the money that was being earmarked for naval expansion might be better spent on, say, the army, to do things like, um, buy fleets of trucks so that in the event of war with France or Russia, the German Army could advance rapidly into enemy territory, keeping the opposing army off balance and keeping the supplies coming as the Germans advance farther and farther from home...? Hm. Interesting thought. A shame no one ever brought that up. We will check back later, and see how that pans out.

Later in the year 1906, a few months after *Dreadnought* was launched, the Cunard Line launched an ocean liner that drew upon the design breakthroughs pioneered by the Royal Navy. She would be to passenger liners what *Dreadnought* was to battleships. She was also powered with steam turbines and could make 25 knots. She was divided into twelve compartments, which could be closed off with hydraulically-powered watertight doors. Any two of the twelve compartments could be flooded and the ship would remain afloat. The new ship also had far more passenger space than any liner before her, and was equipped with the latest modern conveniences: elevators, wireless telegraph capability, and electric lights. Her name was *Lusitania*.

[music: Prelude from *Das Rheingold*]

Ever since the Anglo-French Entente agreement of 1904, French diplomats were badgering the Russians to come to a similar agreement with Britain, so that the three powers could present a united front toward Germany. But as we've seen, the years 1904 to 1906 wasn't a good time for Anglo-Russian relations. The Russo-Japanese war made Russia suspicious of Britain, and the Dogger Bank incident certainly didn't make the British any more kindly disposed toward Russia.

But 1904 to 1906 wasn't a good time for Russia, either. The defeat in the war was costly and humiliating. The revolution of 1905 had finally given Russia a representative legislature, the Duma. Now, the Emperor is going to struggle mightily to prevent the Duma from having any real power, but it made Russia look more liberal, which made it more feasible politically for Britain to do deals with her.

The advent of the Duma caused some of the Russian Emperor's more hardline ministers to leave the government, and new men arrived, particularly a new prime minister, Piotr Stolypin and a new foreign minister, Alexander Izvolsky, who were, shall we say, more pragmatic, about the idea of an agreement with Britain. For one thing, defeat in the war with Japan and the new British deal with Tibet meant the British and their allies now had Russia entirely hemmed in, in Asia. The era of Russian expansion through that continent was pretty clearly over.

And on the British side, the foreign secretary of the new Liberal government, the energetic Sir Edward Grey, almost immediately upon his taking the position began to put out the word in diplomatic circles that he was ready to do a deal with the Russians.

The negotiations went much the same way as the Anglo-French entente. The two sides sat down and discussed their colonial differences one by one. First was Iran, the nation then commonly known as Persia, where the British had been making moves. There had been a revolution against the Persian shah in 1905 as well, and he, too, had been forced to agree to constitutional government and a national legislature, the Majlis. The instability in Iran was a concern to both countries, as Iran bordered on both Russia and India. In the end, the British and Russians agreed to grant each other defined spheres of influence within Iran, with a neutral zone in between.

The Iranian government, needless to say, was not consulted on this deal.

Afghanistan was another point of contention. The British had a deal with the Emir of Afghanistan that they would keep out of his country, if in return he would not deal with any foreign power. In other words, the British wanted Afghanistan as a protectorate. The Russians had been trying for years to get their own deal with the Emir, but for the sake of peace with Britain, they simply dropped that one, and agreed to British control over Afghanistan's dealings with other countries.

And then there was Tibet. As you know, the British have just done a deal with the Tibetan government, like the one with Afghanistan, and only two years ago. Here it was the British who made a concession: Britain and Russia mutually agreed that neither would deal with the

government of Tibet; rather, they would go through the Chinese government, meaning that Russia and Britain effectively conceded Tibet as a protectorate of China, a decision that would have major consequences for Tibet. Again, neither country consulted with Tibet before making this deal.

Again, the negotiations again were lengthy and difficult, but by August 1907, the Anglo-Russian entente was completed. The French were ecstatic, and tried to develop this new triple entente into a full-blown military alliance to rival the Triple Alliance. But the Russians and the British were more circumspect. The British Foreign Office even discouraged the use of the term “triple entente,” and continued to insist that these were nothing more than agreements to resolve a few outstanding colonial issues.

But the fact is that the triple entente would really become a rival alliance in opposition to the Triple Alliance, even though Russian diplomats did make an effort to reach out to Germany to try to facilitate an Anglo-German entente, but it was not to be.

I said before that you shouldn't think of the build-up to the Great War as two rival power blocs, glaring at each other in a decades-long standoff, similar to the coming Cold War. But here and now, in 1907, this is where the standoff really begins to emerge. But note that the standoff would only last seven years before erupting into world war.

We'll have to stop there for today, and we're going to leave the intrigues of European diplomacy behind for a little bit and turn our attention back to America. Theodore Roosevelt has just been elected to a second term as President of the United States, so we'll have to check in, and see what he's getting his fingers into now. That's next week, on *The History of the Twentieth Century*.

Oh, and one more thing. Jackie Fisher was made Baron Fisher in 1909. When he created his coat of arms, he chose as his motto “Fear God and dread nought.” Get it? Ha, ha. What a kidder.

[music: closing theme]