

BATTLEGAME BOOK 5

With four new
**GAMES
INSIDE**

FIGHTING SHIPS

ANDREW McNEIL

**GAMEBOARDS, RULES
AND PIECES
ALL INCLUDED**



USBORNE PUBLISHING

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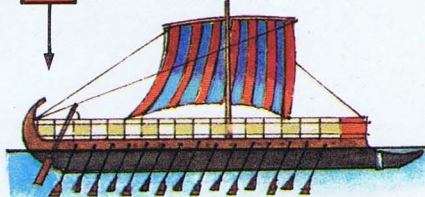
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ABOUT THIS BOOK

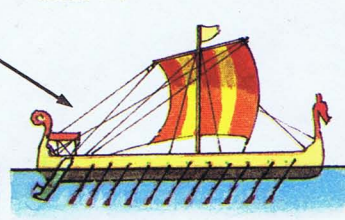
Fighting Ships tells the story of the warship, from the first Egyptian vessels up to today's hydrofoil missile-boats and nuclear submarines.

The four boardgames are based on real-life situations, ranging from Viking warriors pillaging Europe to fights between frigates in the Napoleonic Wars and the mighty sea combats of World War 2.

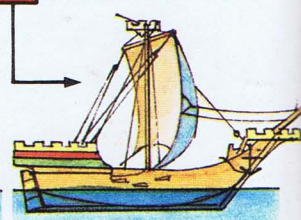
1 The first known fighting ships were built by the Egyptians nearly 5,000 years ago. Oared galleys armed with rams and bowmen were used by the Phoenicians and Romans.



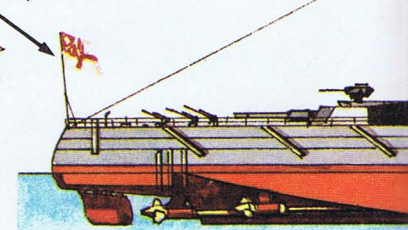
2 1000 AD. The longships of the Vikings were the most seaworthy vessels built up to their time. They were sturdy enough to cross the Atlantic, but could still navigate rivers to attack towns inland.



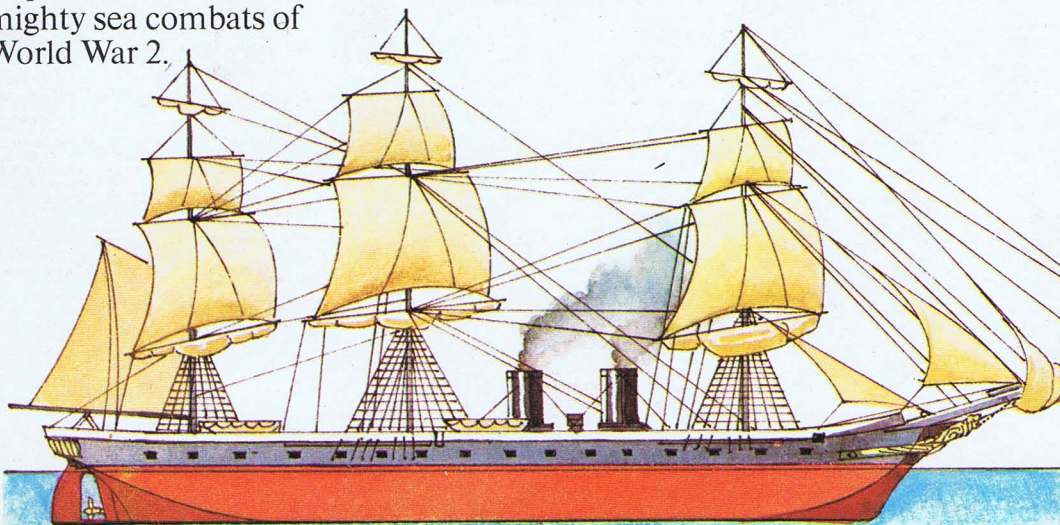
3 In the Middle Ages ships called cogs were built with rudders at the stern, deep hulls, and fighting decks called castles fore and aft.



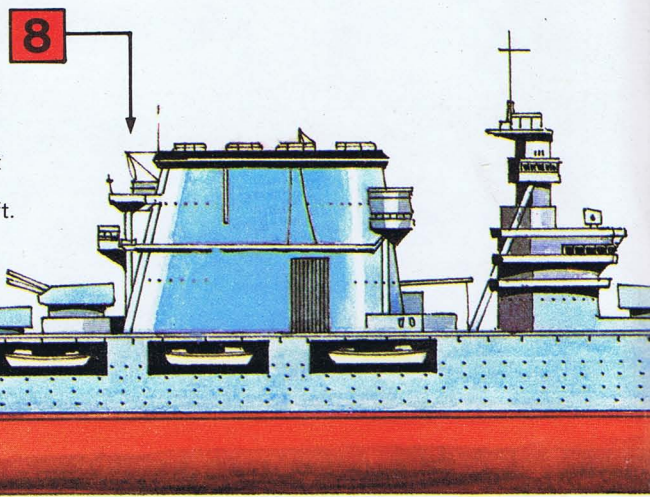
7 Warships had grown in size and strength by the beginning of the 20th century. Biggest of all were the battleships of the Dreadnought class. They were fast and heavily armoured. With their mighty guns encased in revolving turrets, the dreadnoughts could blast any other ships out of the sea at ranges of up to 12 miles.



6 Ship design was revolutionized in the mid-19th century by the introduction of steam power, explosive shells and armour plating. By the 1860s warships were being built with iron hulls and, despite the full rigging, sail was already secondary to steam.

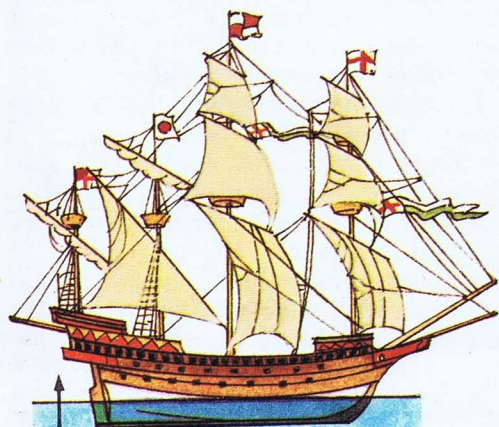


By the time of World War 2, aircraft had proved their worth in sea warfare, and aircraft-carriers had replaced battleships as the giants of the world's navies. Big World War 2 carriers were seven to eight hundred feet long, held crews of nearly 2,000 men, and carried 70 to 80 aircraft.

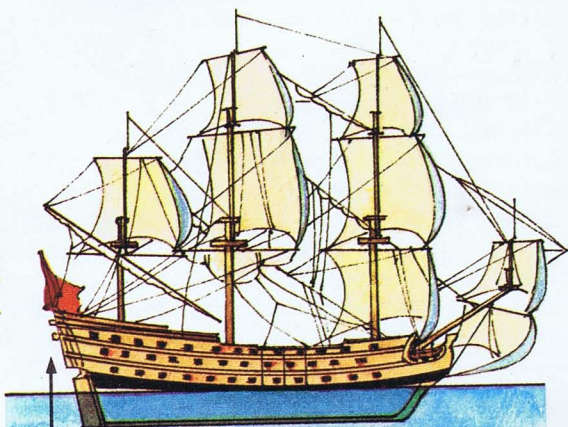


BATTLEGAME BOOK 5

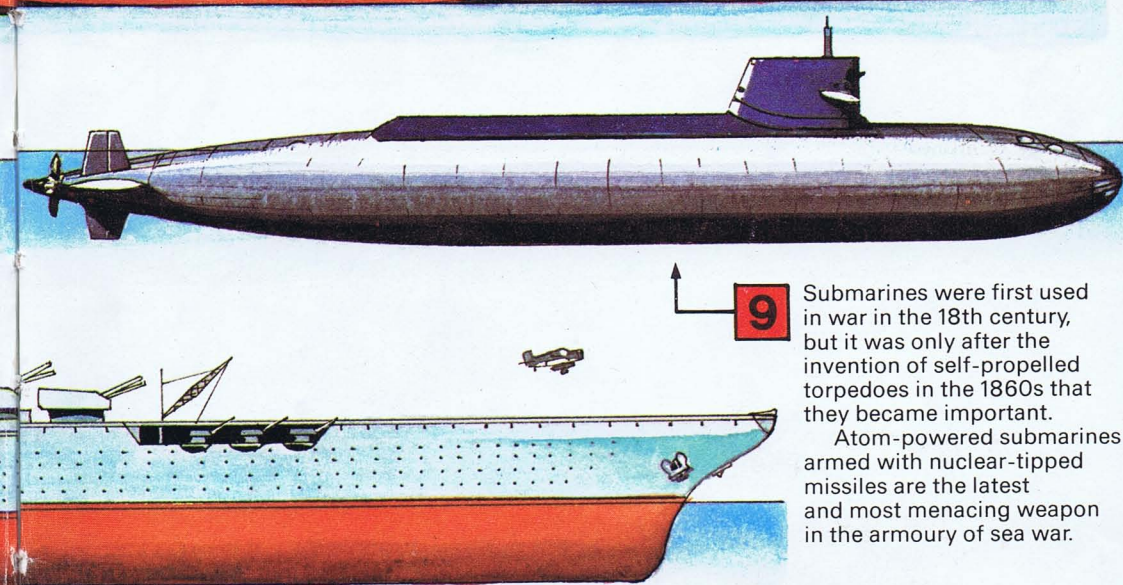
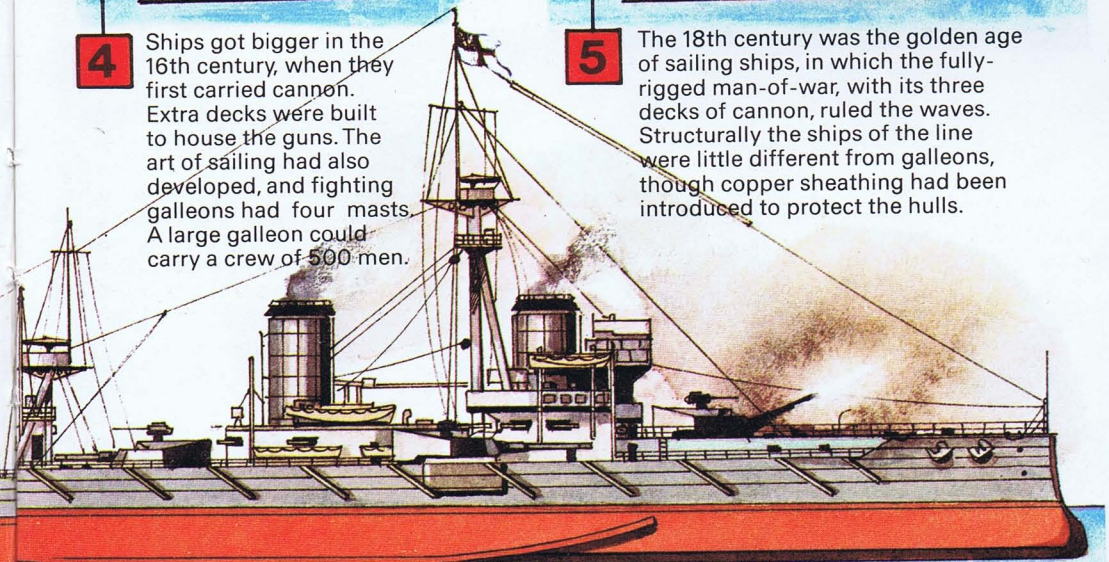
FIGHTING SHIPS



4 Ships got bigger in the 16th century, when they first carried cannon. Extra decks were built to house the guns. The art of sailing had also developed, and fighting galleons had four masts. A large galleon could carry a crew of 500 men.



5 The 18th century was the golden age of sailing ships, in which the fully-rigged man-of-war, with its three decks of cannon, ruled the waves. Structurally the ships of the line were little different from galleons, though copper sheathing had been introduced to protect the hulls.



9 Submarines were first used in war in the 18th century, but it was only after the invention of self-propelled torpedoes in the 1860s that they became important. Atom-powered submarines armed with nuclear-tipped missiles are the latest and most menacing weapon in the armoury of sea war.

CONTENTS

- 4 Early ships
- 6 Ships and guns
- 8 Man-of-war
- 10 From ironclad to dreadnought
- 12 The submarine story
- 13 Submarines and carriers
- 14 Tomorrow's sea war
- 16 Timechart
- Improving and storing game pieces
- 17 Rules and cut-out pieces for four battlegames
- 25 The Vikings
- 26 Battlegame 1 - Viking Raids
- 28 The Spanish Main
- 30 Battlegame 2 - Silver Fleet
- 32 The tactics of fighting sail
- 34 Battlegame 3 - Frigate!
- 36 The siege of Malta
- 38 Battlegame 4 - Battle for the 'Med'

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EARLY SHIPS

The Ancient Egyptians were among the first people to trade by sea, around 2900 BC. The first warships were built by them to protect this trade, but they stayed close to land. Soon after the Egyptians, the Minoans of the island of Crete started building sea-going ships for trading, and warships to protect their Mediterranean empire.

By about 1200 BC, the Phoenicians had become the great maritime nation. The Phoenicians lived at the eastern end of the Mediterranean and they spread far and wide, founding colonies and trading in Cyprus, Sicily, North Africa, Spain, and as far north as Britain.

Ram and oars

The Phoenicians invented the ram, which became the chief weapon in naval warfare for the next eight centuries. The ram stuck out in front of the rest of the ship. It was designed to hole a ship underwater and sink it. Only a fast-moving ship could use a ram

properly. Sails could not provide enough speed nor accurate-enough steering. But oars could. So a new kind of ship called the galley was invented. Galleys called 'biremes' were soon built with two banks of oars.

Triremes at Salamis

The Greeks went on to develop the 'trireme', which had three banks of oars. A trireme could move and alter course quickly. It could ram enemy vessels, or it could steer close to the enemy ship's side and smash its oars. Triremes carried archers and other soldiers for boarding.

In 480 BC the Greeks won the Battle of Salamis with their triremes. There they defeated the Persians under King Xerxes, who had invaded Greece and burned Athens to the ground. The Persians had a bigger fleet than the Greeks and their ships were heavier. But in the narrow Straits of Salamis, the Persian ships had little room to move and quickly jammed

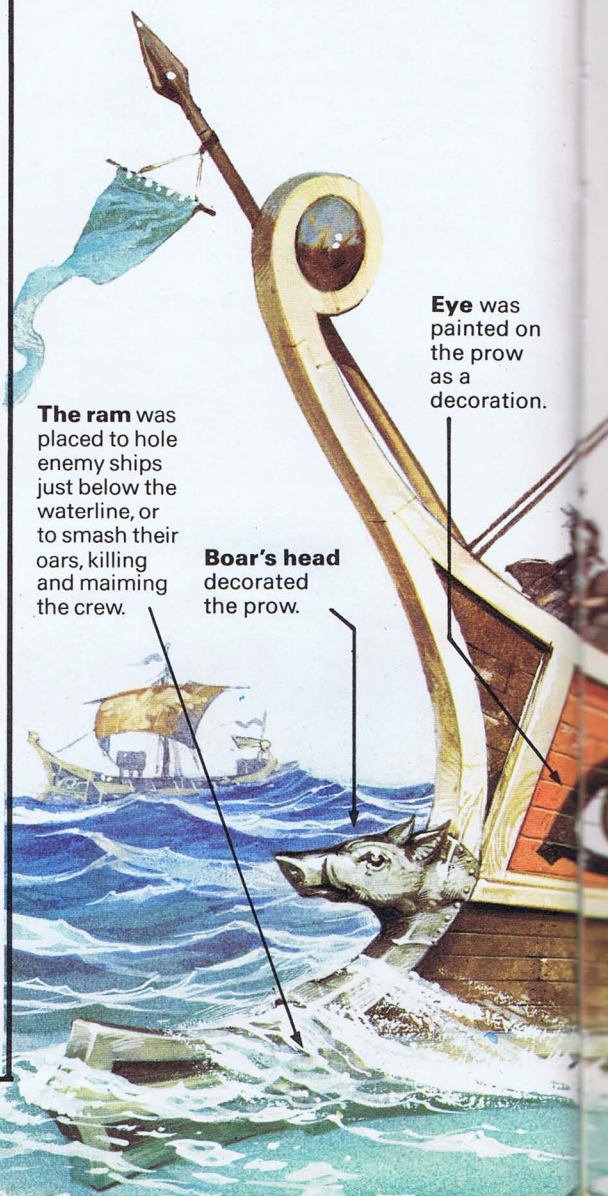
against one another. The light Greek ships rammed and sank dozens of them.

Meanwhile, Roman influence was spreading. But so was the power of Carthage. Carthage had been founded in North Africa by the Phoenicians, and was now Rome's chief rival.

Rome's first fleet

Rome had no warships when the first of her three wars with Carthage broke out in 260 BC. But the Romans copied a Carthaginian galley which had been washed ashore and built a fleet of their own in only two months. In 241 BC the war ended in a victory for Rome.

To most of their ships the Romans fitted a 'corvus'. This was a wide gang-plank with a spike at the end that looked like a crow's beak—corvus is Latin for crow. The corvus was stowed against the mast and let down when the enemy was alongside. The spike went into the other ship to hold it firmly. Soldiers could then board the enemy ship



and fight the battle hand to hand. Later Roman ships were fitted with catapults and other war engines.

The Byzantine Empire

After the fall of Rome in 476 AD, the greatest naval power in the Mediterranean was the Byzantine Empire, centred in what is now Turkey.

The Byzantines took the best of Greek and Roman ideas about warships and built the 'dromon'. Dromons were large ships with three masts and two banks of oars. Some even had flame-throwers in the bows.

Viking longships

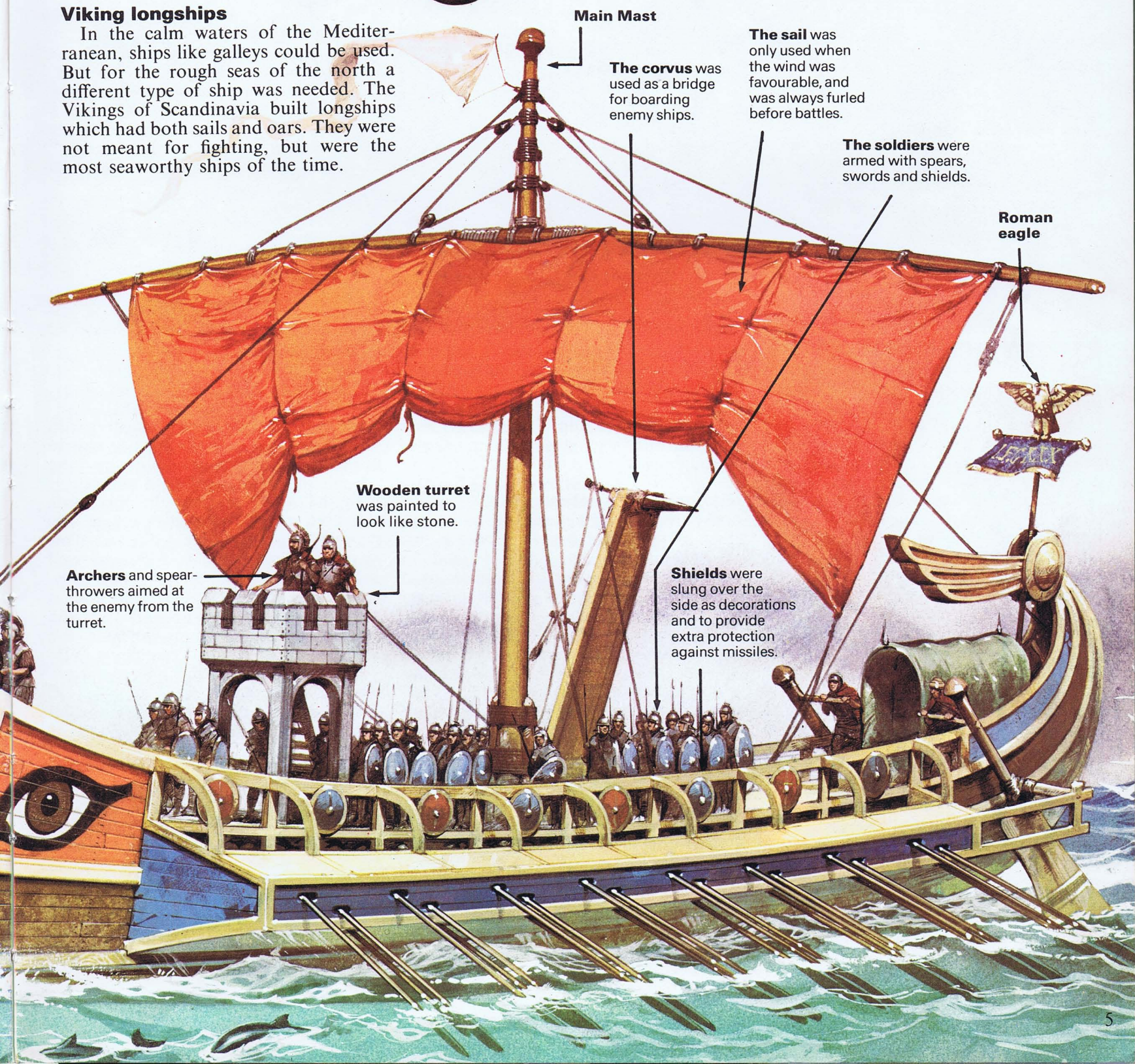
In the calm waters of the Mediterranean, ships like galleys could be used. But for the rough seas of the north a different type of ship was needed. The Vikings of Scandinavia built longships which had both sails and oars. They were not meant for fighting, but were the most seaworthy ships of the time.

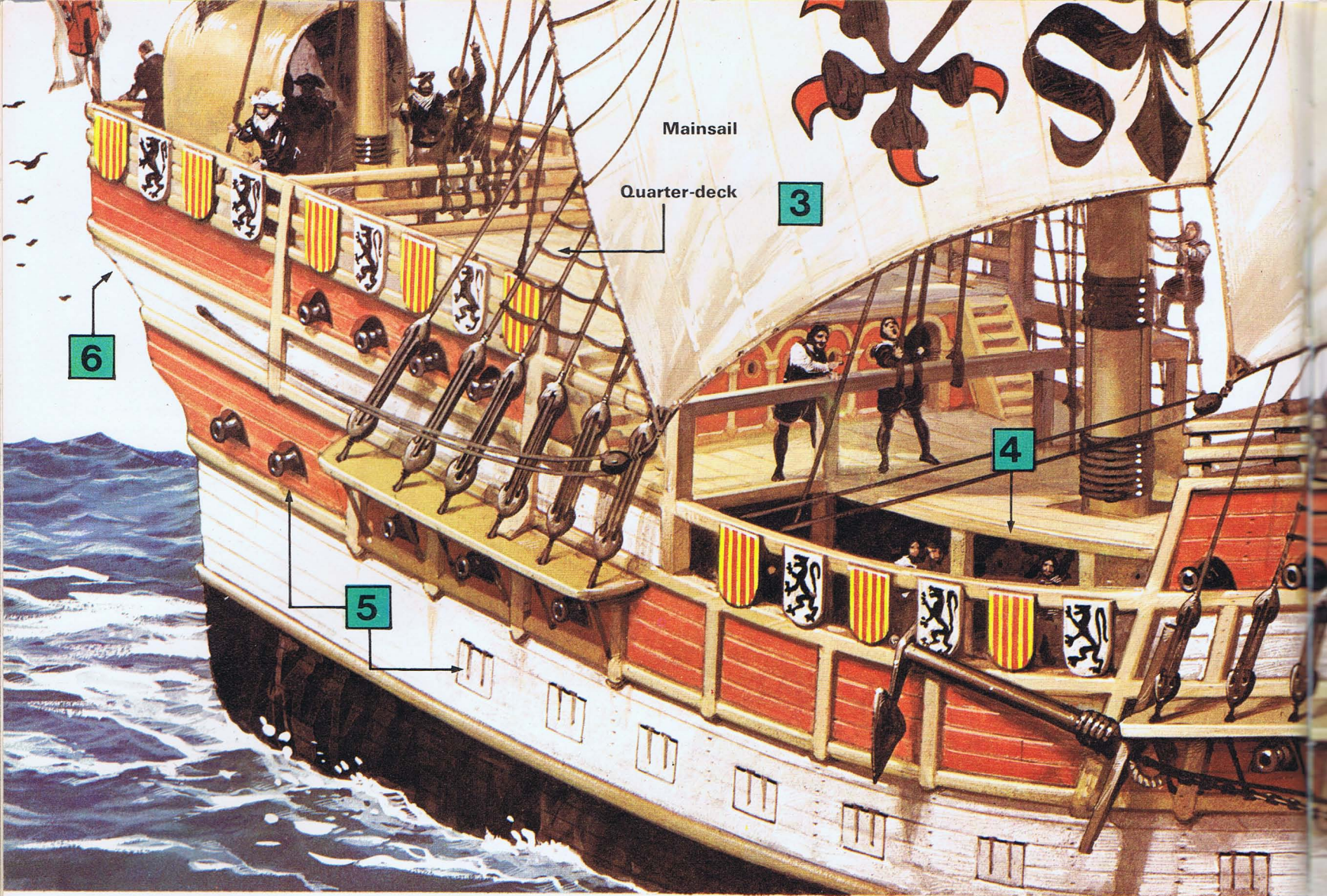
The might of imperial Rome

The Roman trireme, which was developed from earlier Greek and Carthaginian triremes, had three banks of oars and a single large sail. It was equipped with a bridge called the corvus that could be lowered to allow soldiers to board enemy vessels. It also had a ram and a fighting

tower, from which slingers and bowmen could fire at the enemy. It was steered by two big oars.

The trireme was heavy and slow to manoeuvre. In later Roman times a new, lighter type of vessel called the Liburnian came into favour.





SHIPS AND GUNS

Mediaeval ships were developed along the lines of Viking longships. Men had learned to make better use of sails, and so mediaeval ships had no ram or oars and were built higher out of the water than earlier boats. They had 'castles' at each end from which archers could shoot at the enemy. When cannon were invented the English were the first to fit them in ships.

The first gun-ports

To begin with, cannon were put in the castles at the bow (forecastle) and stern (aftercastle). King Henry VIII's ship-builders realized it would be better to put them nearer the water-line, to be

steadier. Henry's ships were also some of the first to have gun-ports—portholes through which guns could be fired.

Galleons and galleasses

By the 1550s, England had built up a fleet of small but heavily armed ships. The Spaniards were close behind in warship development. They also used cannon, though most of these fired cannonballs of stone or poor-quality metal rather than iron.

The Spaniards needed warships to protect their colonies in America. These ships, called galleons, were built high out of the water. Height gave them an advantage, for soldiers could fire

down on the enemy before boarding with swords and pikes. Galleons also had to be large to carry stores for the long voyage and cargoes of gold and silver.

In the Mediterranean the Spaniards still used galleys and, later on, a new type of ship called the 'galleass'. This was like a galley but had sails as well as oars. It had a ram and also had guns, both along the side of the ship and in the bow and stern. With galleasses the Spaniards and Venetians defeated the Turks at the Battle of Lepanto in 1571.

The Spanish Armada

England and Spain were vying with each other for power both in the Old World of

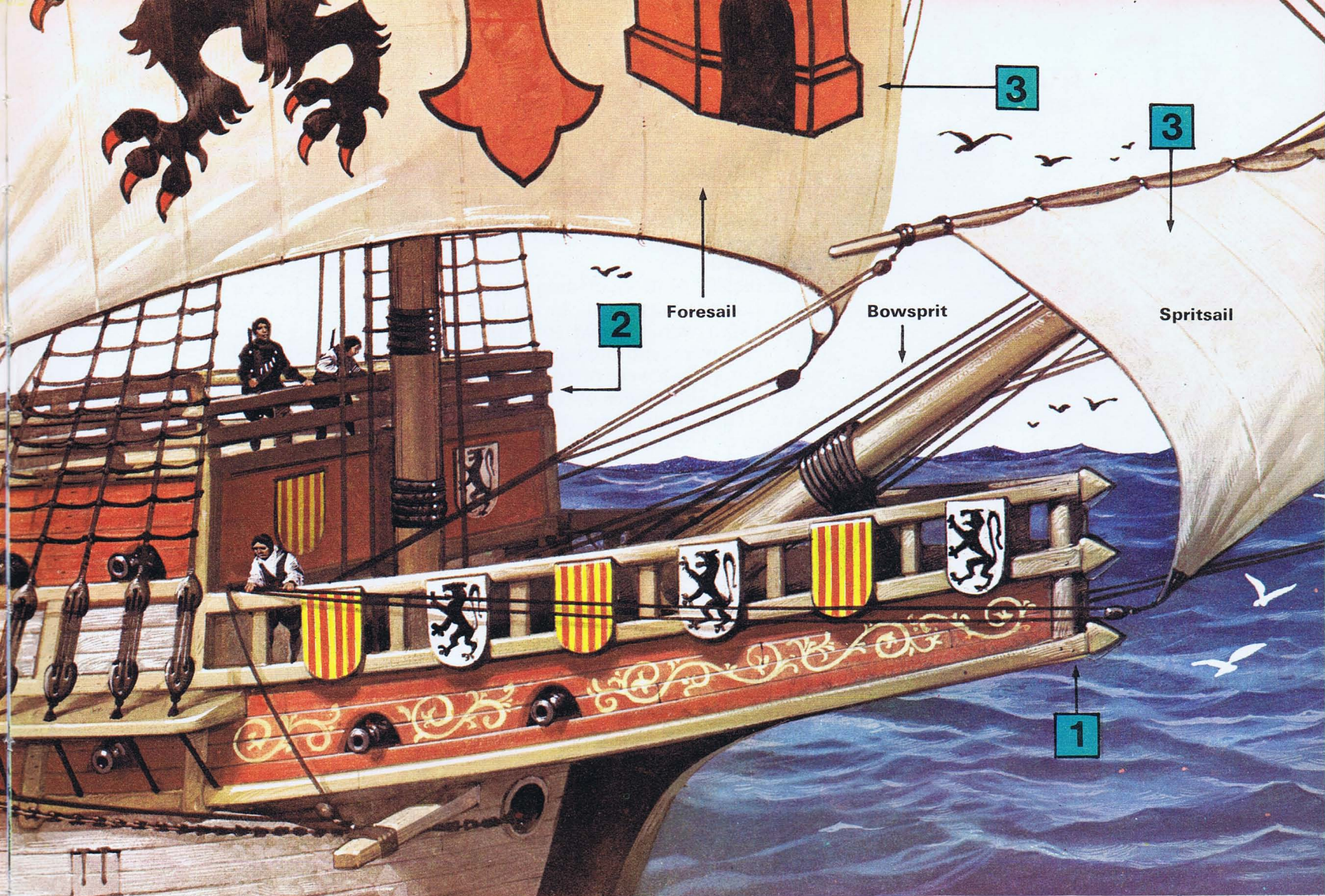
Long-range artillery – good shooting or plain lucky?

Long-range gunnery did not become accurate until the 19th century. A sixteenth-century culverin—an early type of cannon—could only be counted on within about 300 yards of the enemy.

Gunners had to get the range right as well as to aim correctly, or else the cannonball would either fall short or else pass harmlessly over its target. The quality of powder charges varied, too, so no two shots were ever quite the same.

Flight-time for a long-range shot like this would be about 14 seconds.

Flight-time for this shot would be, 10½ seconds.



Europe and in the New World, America. In 1588 Spain sent her fleet of 130 armed ships, the Armada, against England. The Spaniards knew that the English ships would be able to manoeuvre round their taller ships, and that the English had better cannon. But Spain hoped that the weight of numbers would win the day.

Defeating the Armada

The English fleet put to sea at night and surprised the Armada coming up the English Channel in the morning. Later they attacked again from the rear. Many Spanish ships were sunk or damaged by gunfire. Others fled north, only to be wrecked off the coasts of Scotland and Ireland. England's decisive victory showed that cannon were more important than soldiers for boarding.

In the 1600s the English, Dutch and

French all built fine ships. Between 1652 and 1672 the Dutch and the English fought three wars over sea trade against each other. Their ships were equally matched. Intelligent tactics and gunnery became more important than ever.

The line of battle

As ships had their guns along their sides, it was best to put them in line. Then the full weight of the guns could be used on the enemy. Since the enemy also wanted to put his ships in line, the side that used the wind and weather to get in line first had the advantage. Fleets practised different manoeuvres, and gave each one a name or number that could be hoisted up as a signal.

The 'line-of-battle' ship, which was heavily armed but still sailed fast, became the most valuable in the fleet.

Pride of the Spanish Main – the fighting galleon

Galleons were large sailing ships armed with cannon. The first ones were built in the early 16th century. The picture shows an early Spanish galleon with four masts (the mizzen mast is hidden behind the mainsail) and fitted with gun-ports – a recent invention.

1 The beakhead was a projecting prow built to make it easier to work the spritsail.

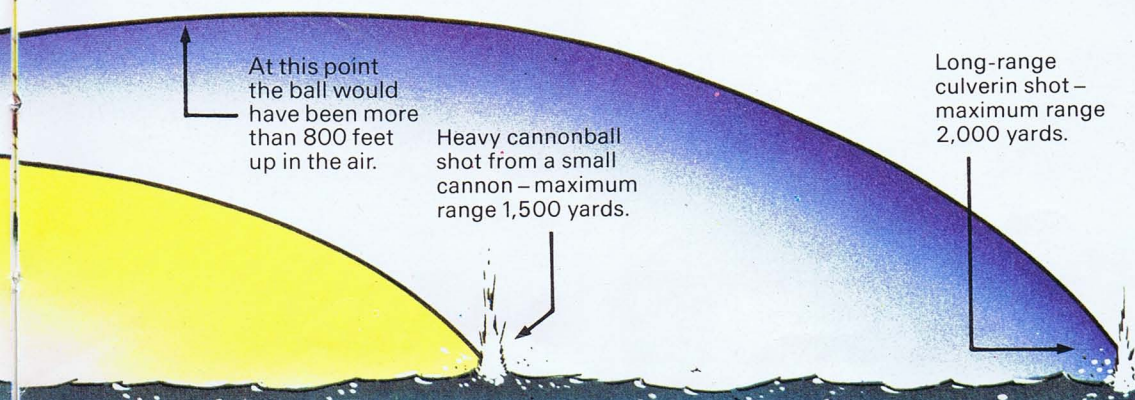
2 The forecastle housed light guns called pedreros and demi-cannon. During battle soldiers fired match-lock guns from its open deck.

3 The sails were made of strips of canvas stitched together, and were strengthened with rope at the edges.

4 Soldiers outnumbered sailors on Spanish ships. The Spaniards preferred to fight at close quarters, so they could grapple and board enemy vessels.

5 The biggest guns, which could fire 60-pound balls, were kept on the lower decks. Spanish gunners usually aimed at masts and rigging. English gunners fired on the downward roll to hole enemy ships and injure the crew with flying splinters.

6 The poop housed the captain's cabin as well as a pair of stern guns for firing at pursuing ships.



MAN-OF-WAR

In the 1700s the three major naval powers were Britain, France and Spain. Throughout the century these countries continued to improve their ships. The French and the Spanish led in ship design, but the British had better guns and greater skill in using them.

Ships had got bigger. The biggest ship built was Spain's *Santissima Trinidad*, a four-decker with 132 guns. The French preferred smaller ships, of 74 to 80 guns. A popular line-of-battle ship was the '74', which had 74 guns. By the end of the century, about two out of three fighting ships were '74s'.

Big guns

The guns carried on ships of the line were of different weights and ranges. Thirty-two pounders, which fired cannon-balls of that weight, were carried on the bottom deck, 24-pounders on the middle deck, and 12-pounders on the upper decks.

Fifteen men were needed to operate a 32-pounder, most of them just to pull the three-ton gun into position after firing and reloading. Since operating

the guns took so many men, only one broadside (the guns along one side of a ship) could be fully manned at a time.

Life on board

Life for the 600 or more men on board a ship of the line was hard. Discipline was strict. Men were flogged for small offences. They were paid only at the end of a voyage, and then were often cheated by paymasters. Ships were overcrowded and dirty. Thousands more men died from disease or accidents than in battle.

A British 'man-of-war', as the ships of that time were called, needed between 600 and 1,000 men to be fully manned. However, the warships were only fully manned in wartime. Then, to crew the 400 ships of the British Navy, it became necessary to force sailors to join the Navy. This was called impressment. The men who carried out the task were known as press gangs.

Changing tactics of warfare

In the middle of the 18th century, there was a change in naval tactics. Admirals would try to break the line of

the enemy's ships and bring the guns of all their own ships against only a part of the enemy's. British admirals also took advantage of their better gunnery. They forced the French and Spanish to fight at close range, where gunnery would decide the outcome of the battle.

The oak-built ships of the time could stand a lot of punishment. Admirals were not afraid to suffer losses among their own men and ships.

Britain's naval officers

The British Navy gained most from these developments in tactics, because, by the late 18th century, they also had the greatest number of well-trained officers. As a rich island nation with many colonies it was natural that Britain should pay much attention to the efficiency of her navy. Spain, on the other hand, neglected the training of officers. And a great many of the experienced officers of the French Navy were killed in the French Revolution.

Nelson at Trafalgar

One of Britain's most brilliant admirals was Horatio Nelson. In 1798 and 1801 Nelson had won victories against the fleets of France in Egypt and Denmark off Copenhagen. It was under Nelson's command that the British won the Battle of Trafalgar in 1805. This was the last, decisive battle of the age of the 'wooden walls'. In it the British showed the value of their tactics and the mettle of their officers and men.

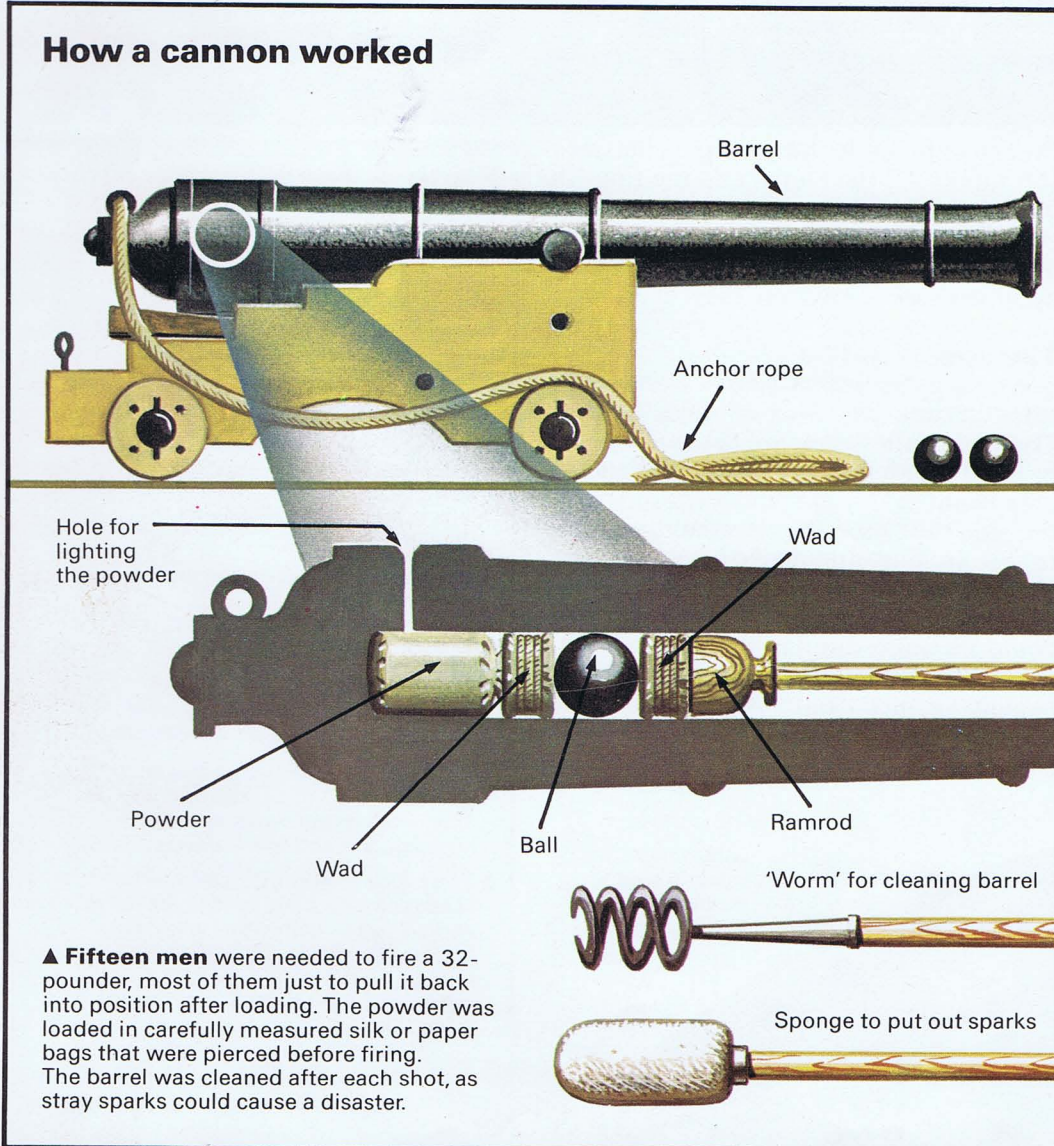
Nelson's fleet bore down on the Allied French and Spanish fleet with all sails set. When the ships, in two divisions, reached the enemy line, they sailed between the enemy ships. As each ship passed through, it fired a broadside at the stern of the enemy ship, its weakest part. The effect of this was always shattering, for the broadside passed down the length of the ship, tearing guns from their tackles and killing or wounding the crews. This was known as 'raking'. The British ships then rounded on the other side, firing further broadsides. They could fire three to every one of the enemy's.

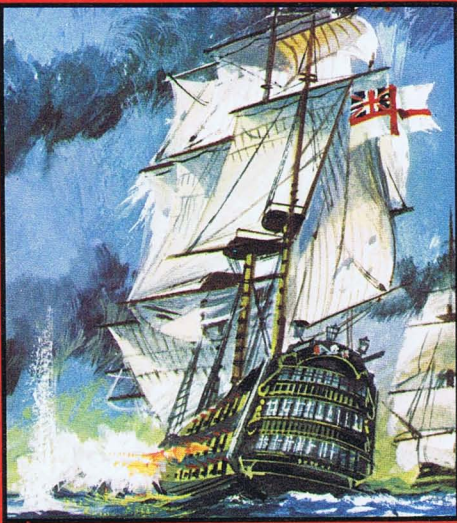
The Allied fleet's only hope at Trafalgar would have been to cripple the British ships as they approached the line. But the Allies' gunnery was inaccurate, and their ships heeled over in the wind, so the shots went too high.

The American challenge

After Trafalgar no fleet existed to challenge that of the British. But the Americans had built heavy frigates that fought many successful single-ship actions during the war between Britain and the United States in 1812.

How a cannon worked



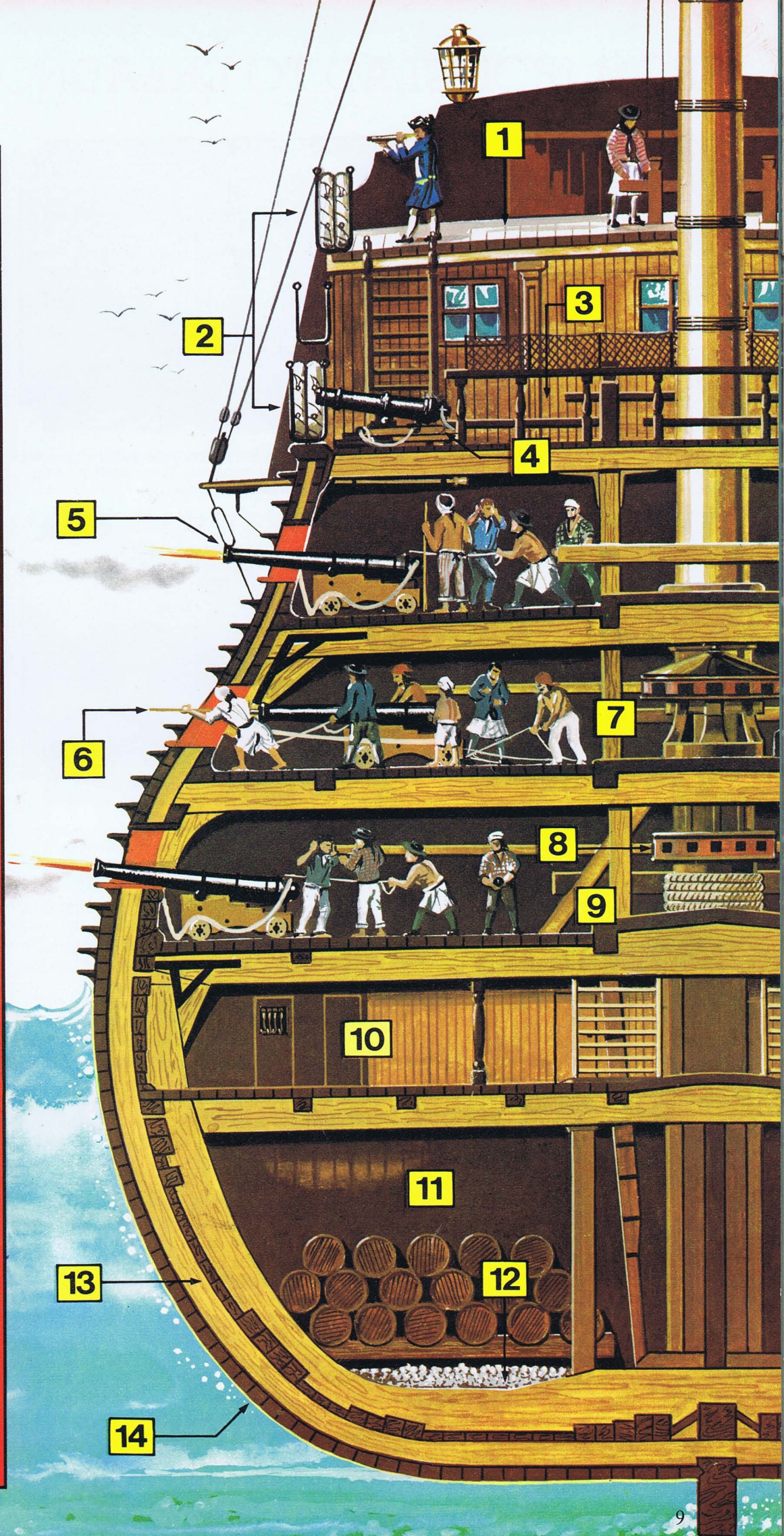


Ships of the line were the most advanced fighting machines of their time. They were designed for just a few minutes of battle, when they would hurl a mass of iron at enemy ships.

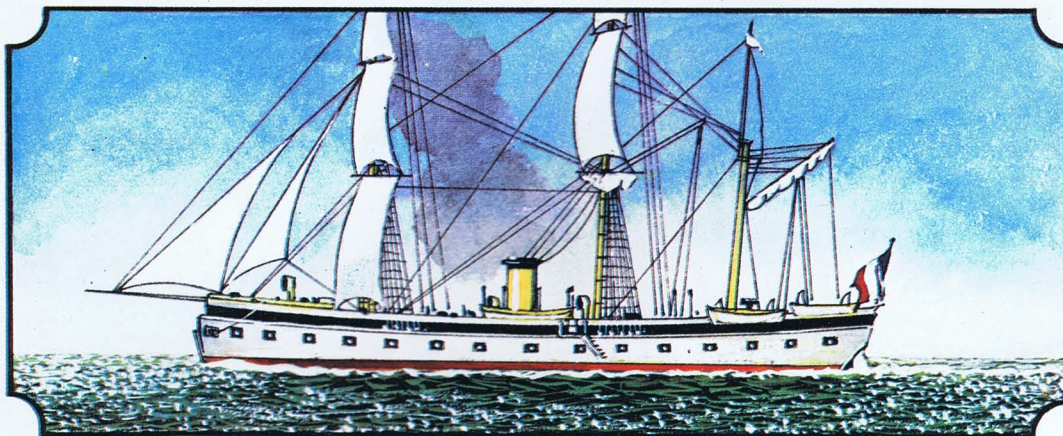
The rigging was complex, to hold the 16,000-odd yards of canvas carried on a large warship. Seamen manning it needed a head for heights, as the main mast could rise 120 feet over the deck – the height of a ten-storey building.

Inside the wooden walls

- 1 **The poop** was used as an observation post by officers on watch duty.
- 2 **Hammocks** were placed in the netting brackets during battle, to give extra cover to those on deck.
- 3 **The quarter-deck** was the open deck between the poop and the main mast.
- 4 **Carronades** were short-range guns which could fire very heavy shot. They were nicknamed 'smashers'.
- 5 **The upper gun-deck** held 12-pounders.
- 6 **This gunner** is sponging out sparks in the barrel of the gun.
- 7 **The middle deck** carried 24-pounders.
- 8 **The capstan** was used to raise the ship's anchor. It took 140 men to work it.
- 9 **The lower deck** had the heaviest guns—usually 32-pounders.
- 10 **The orlop deck** was the darkest and stuffiest of all. Without portholes, it was lit by lanterns.
- 11 **The hold** was the ship's storeroom, where provisions, water and powder were kept in barrels.
- 12 **Ballast** was needed to weight the ship and to stop it from keeling over. 500 tons of iron were used to ballast a large man-of-war.
- 13 **The oak hull** was about two feet thick.
- 14 **Copper sheathing** was nailed to the hull below the waterline to protect it against shipworms which otherwise bored into the wood.

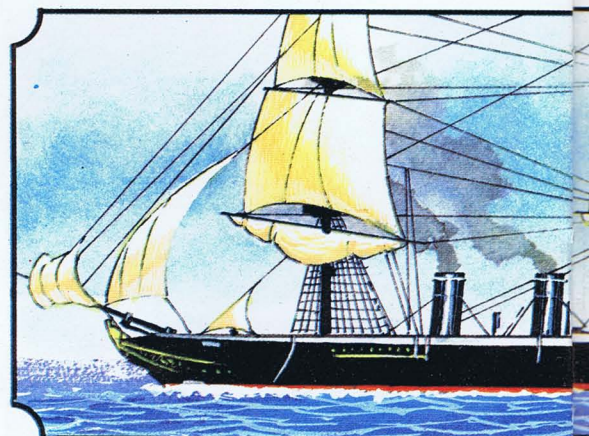


FROM IRONCLAD TO DREADNOUGHT

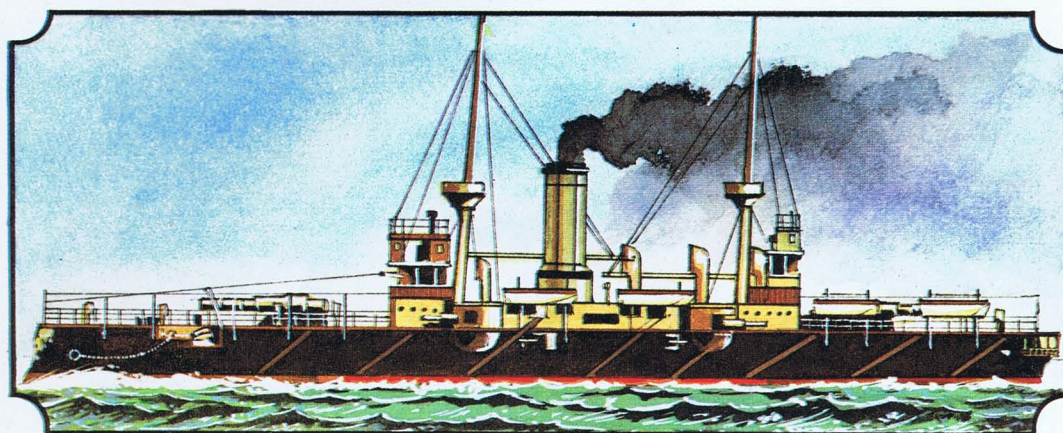


▲ **The first ironclad** was the *Gloire*, built in France in 1859. It carried full sailing gear, even though it was first and foremost a steamship.

A layer of iron five inches thick, backed by wood 26 inches thick, protected the sides of the ship from bow to stern.

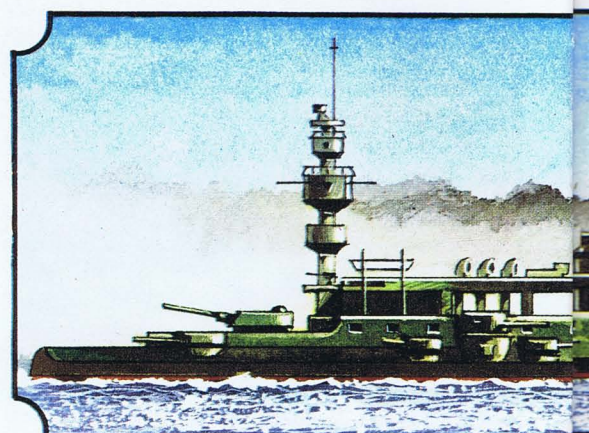


▲ **The Warrior** (1860), Britain's answer to the *Gloire*, was the first iron-hulled warship. Armour plating covered it amidships, but the two ends



▲ **By the time of the Royal Sovereign** (1892), guns were mounted in barbets – armoured turrets without roofs. These were

lighter than normal turrets, and so could be mounted higher on the ship, giving the guns a better field of fire.



▲ **The Charles Martel** (1893) was typical of French warship design of the 1890s, when French guns and armour led the world. Its four

In the hundred years after Trafalgar, ships changed completely. Sail gave way to steam. Warships were armoured, and they carried guns that could fire shells for several miles. A new weapon, the torpedo, and new craft designed to use it appeared.

France led the way in building warships, with Britain just behind. In 1859 the French built the *Gloire*, the first warship to have armour. She was made of wood and protected with iron. One year later the British launched the *Warrior*, a bigger ship made entirely of iron. Both the *Gloire* and the *Warrior* were steamships with screw propellers. But they still carried full sailing-rig.

Revolving gun-turrets

With the arrival of the 'ironclad', as these vessels were called, heavier guns were needed. Shells now had to pierce armour which could be up to three feet thick. As guns got heavier, so the three decks of guns gave way to just one. But the guns were made more effective, partly by housing them in iron towers called turrets. By revolving the turrets the guns could be turned to point in any direction.

Besides their new iron cladding and gun-turrets, warships were again built with rams. When neither side in a battle had better armour or guns, ramming was the only way to sink enemy ships.

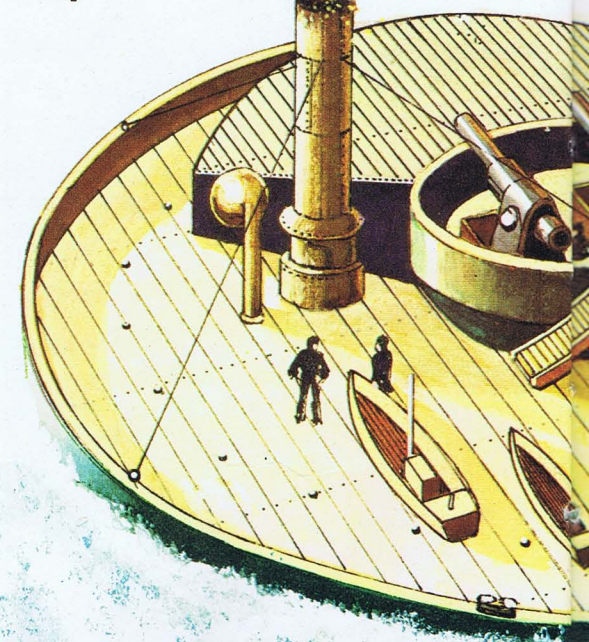
Ironclads at war

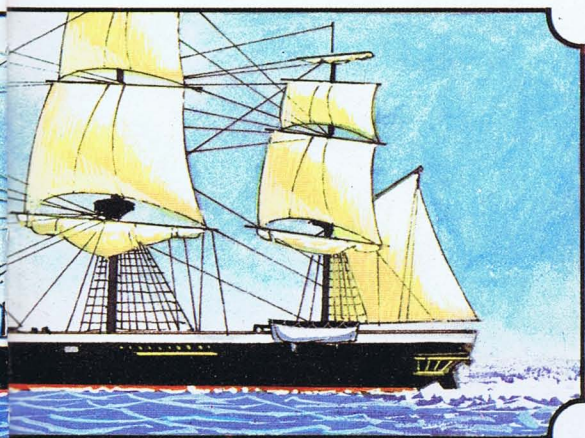
In 1862, during the American Civil War, two ironclads fought for the first time. Their shells bounced off each other, and neither ship won. But ironclads soon proved that they could beat wooden warships. In 1866 the only nineteenth-century battle between fleets of ironclads was fought at Lissa, in the Adriatic Sea. It ended in a victory for the Austrian Navy, which sank the Italians' flagship by ramming her.

The ram attacked a ship where it would suffer most damage—below the waterline. So did the torpedo. The invention of the torpedo in the 1860s brought many changes. Small ships now had a weapon that could sink big ones. By the early 1900s, rams had almost disappeared. Torpedoes had become the best way of piercing an enemy ship's armour.

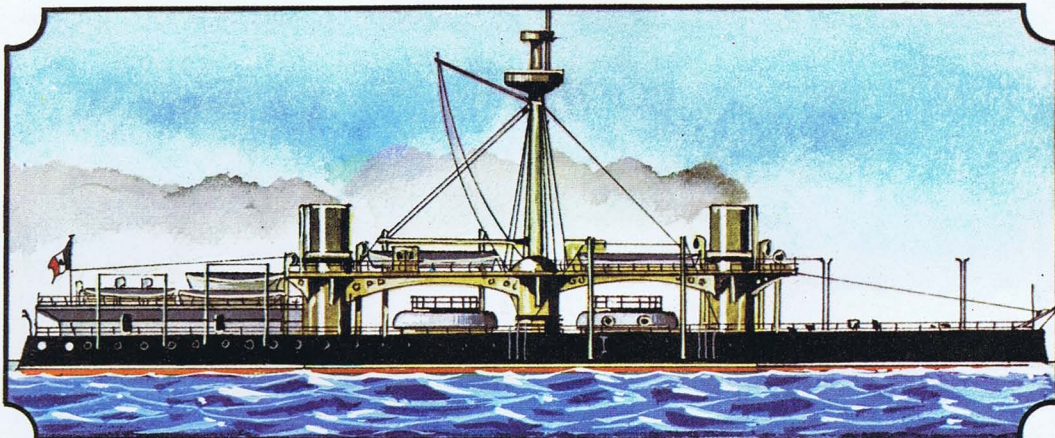
The best vessel for firing torpedoes was the submarine. Motor-driven submarines came into use in the early 1900s.

Spectacular failure – the saucer-shaped ship



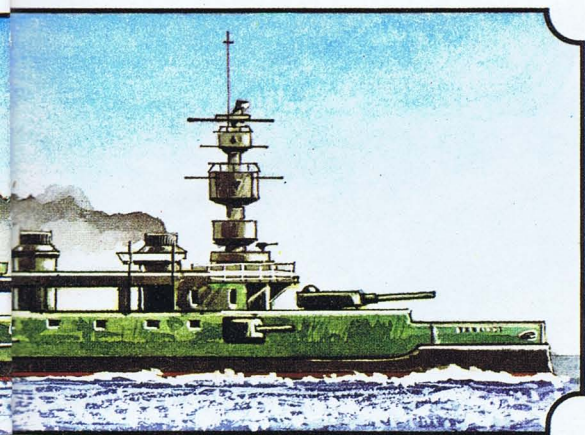


were unprotected. Its 48 guns were arranged in the soon-outdated broadside position along the ship's sides.

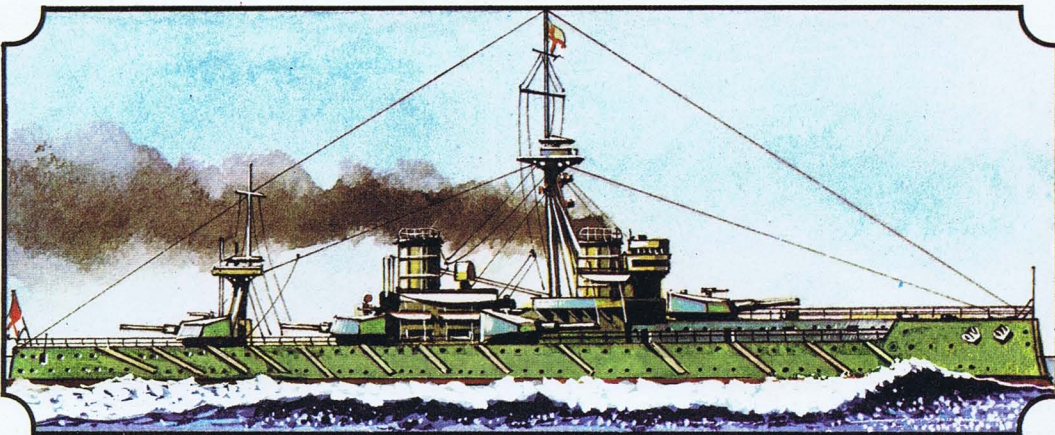


▲ **Italy's Dandolo** and her sister-ship the *Duilio* (1876) were the most powerfully armed ships of their day. Their four 100-ton, 17¾-inch

guns could penetrate 26 inches of armour at 1,000 yards, but had a restricted field of fire. They were the last and biggest muzzle-loaders.



big guns were arranged in separate barbettes, with 12-inch guns fore and aft and two 10¾-inch guns amidships.



▲ **Britain's Dreadnought** (1906) outdated all previous battleships. It was the first to have steam turbine engines, giving it a top speed of

21 knots. Its ten big guns were all of the same calibre, so they could all fire at a single target at once. This was called salvo firing.

By 1914 great improvements had been made, among them the introduction of the diesel engine, which meant that submarines could travel far from base.

Big guns at Tsushima

Accurate gunnery and torpedo fire became the deadliest weapons in naval warfare. In May 1905 the Japanese fleet destroyed the Russian fleet by these means at the Battle of Tsushima. This was the biggest sea battle since Trafalgar, a hundred years before, and it showed that big guns in fast ships were needed to win wars at sea.

The first ship to have big guns all of the same calibre (size) was begun in the same year as Tsushima. It was the British battleship *Dreadnought*. Her turbine engine was more efficient than earlier steam engines, and she had ten 12-inch guns. She gave her name to a whole new class of battleships.

From rivalry to war

In the early years of this century, Germany and Britain became the leading builders of warships and makers of arms. Rivalry between the two countries led to inventions of all kinds. A new type of

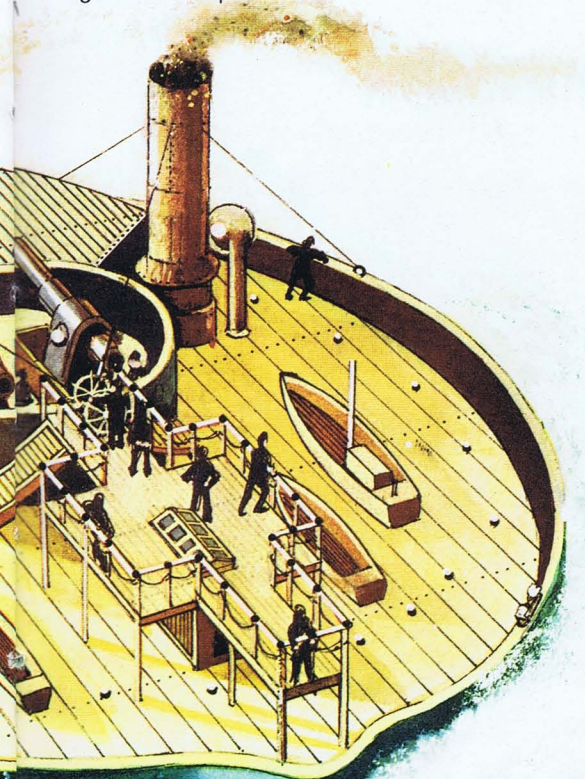
ship, the battle-cruiser, was built by both. Battle-cruisers were armed like battleships but not as heavily armoured, so they could go faster.

In 1914 the First World War broke out, and the two rivals became enemies. The British had the larger navy, so big that it was divided between three harbours in Scotland. The Germans realized that their best hope would be to use all their ships to defeat one part of the British fleet.

The Battle of Jutland

They thought they had succeeded in this at the start of the Battle of Jutland in 1916. A British battle-cruiser force was lured within range of the guns of the German dreadnoughts. But the Germans in their turn were nearly trapped when the retreating cruisers led them to the main British fleet.

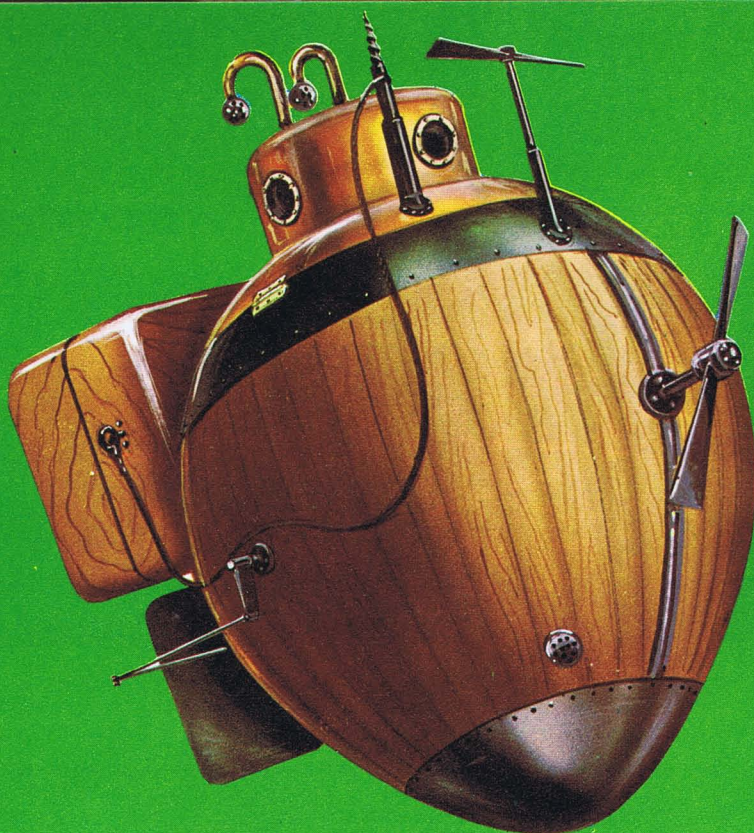
By a well-executed retreat, the German admiral avoided disaster, and under cover of night his fleet managed to slip past the British to the safety of port. Both sides lost similar numbers of ships, so the only full-scale battle between the great powers of the dreadnought era ended in an inconclusive draw.



▲ **The oddest ironclads** were the two circular coastal defence vessels built for the Russian Navy in 1873. They were nicknamed 'popoffkas' after their designer Admiral Popoff. They proved unseaworthy.

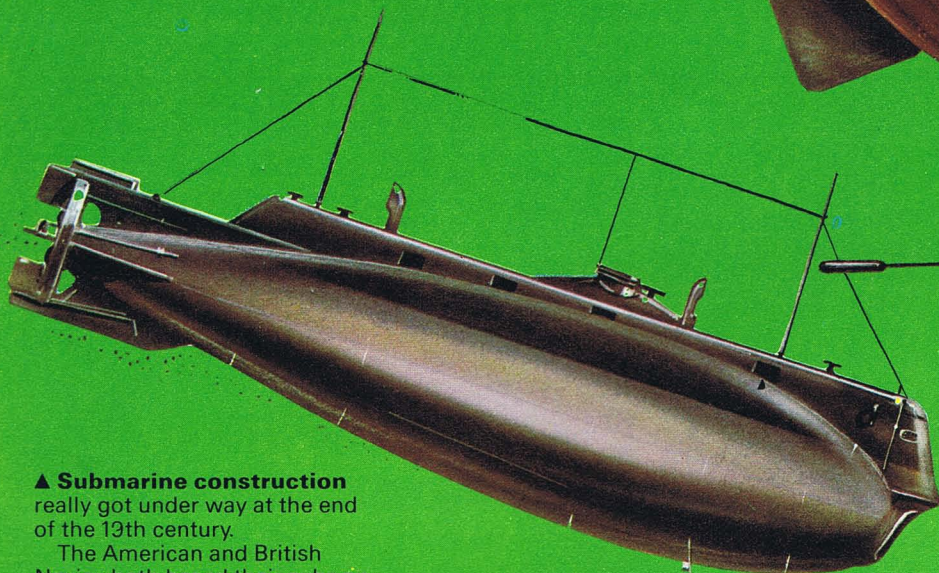
THE SUBMARINE STORY

The advantages of an underwater vessel that could carry out surprise attacks on enemy shipping attracted the attention of inventors from the 16th century on. But it was not until the invention of the petrol and electric engine, the torpedo and the gyroscope that the submarine became a really effective weapon.



◀ **The first submarine** to be used in war was the *Turtle* (1776). It carried one man, who pedalled it forward and submerged it by stepping on a valve to let water into ballast tanks.

During the American Revolutionary War, it was used against a British frigate. Its drill (with a mine attached to it) failed to pierce the boat's copper-sheathed hull. The attack failed, and the *Turtle* was never used again.



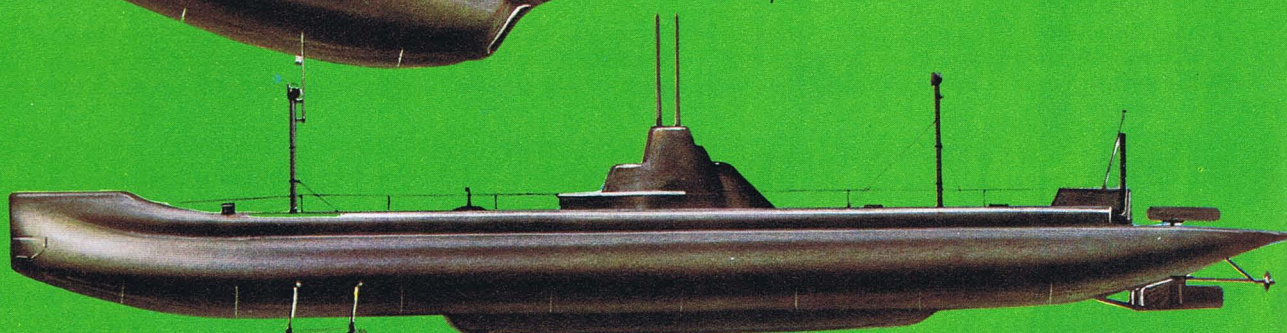
▲ **Submarine construction** really got under way at the end of the 19th century.

The American and British Navies both based their subs on designs by the American John Holland. His boats were powered by petrol engines on the surface, and by electric motors when submerged. They were fitted with only one torpedo tube.

▼ **Submarine warfare** came of age in World War 1, in which some 2,500 Allied vessels were sunk by underwater raiders.

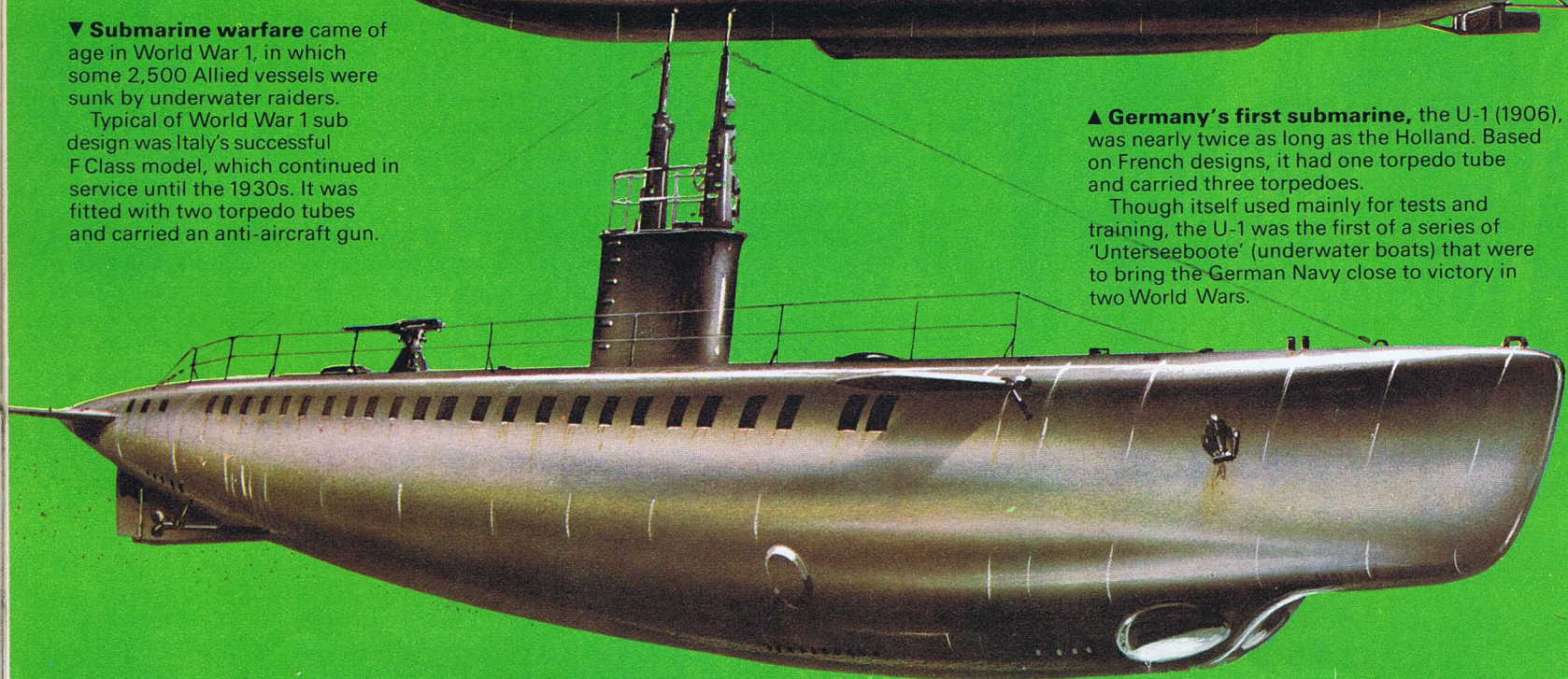
Typical of World War 1 sub design was Italy's successful F Class model, which continued in service until the 1930s. It was fitted with two torpedo tubes and carried an anti-aircraft gun.

▲ **Submarines called 'Davids'** were used in the American Civil War. They were armed with torpedoes fixed to spars. Shock waves from the explosion of these sank at least two of the half dozen used in the war. The David shown above was steam-driven, and could only submerge to deck level as its funnel had to stay above water.



▲ **Germany's first submarine**, the U-1 (1906), was nearly twice as long as the Holland. Based on French designs, it had one torpedo tube and carried three torpedoes.

Though itself used mainly for tests and training, the U-1 was the first of a series of 'Unterseeboote' (underwater boats) that were to bring the German Navy close to victory in two World Wars.



SUBMARINES AND CARRIERS

The Battle of Jutland was the last great naval battle to be fought between the guns of the opposing fleets. After it submarines began to play a major part in naval warfare, and a new threat was to come from the air.

One immediate result of Jutland was that Germany's naval commanders decided not to risk another fleet action against the British. Instead they concentrated on destroying Britain's merchantmen with their submarines. In all, 11 million tons of Allied shipping were sunk in the four years of the First World War, and Germany's use of submarines brought her very close to victory.

The first aircraft-carriers

It was not until after the First World War that a new and important type of ship began to be built—the aircraft-carrier. Aircraft had been used during the war to help with reconnaissance, and a few ships had been converted to carry aircraft. But the first ships to be designed and built as aircraft-carriers, Japan's *Hosho* and Britain's *Hermes*, were launched in the 1920s.

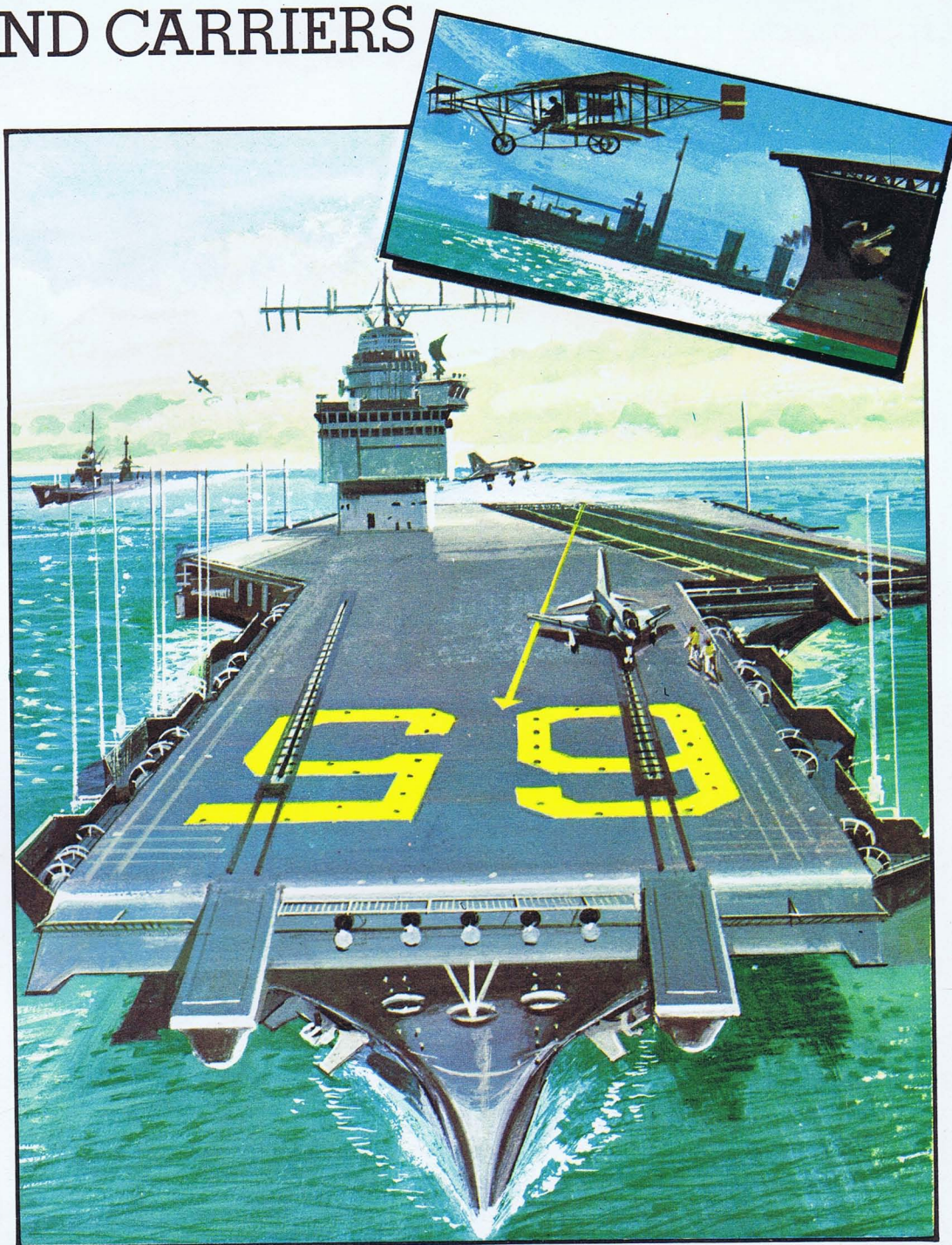
A new naval race began, this time between Japan and the United States. Both countries realized the importance aircraft-carriers would have in a future war—particularly a war fought for control of the vast Pacific Ocean. Both realized, too, that a carrier is only as good as the planes it carries.

U-boats on patrol

Submarines were continually improved between the First and Second World Wars, and some navies built submarine cruisers which carried as many as three aircraft. But the patrol submarine or U-boat was the most important type of submarine. It had the greatest range and speed, and could carry the most torpedoes. A great many U-boats were built. At sea they spent most of their time on the surface and submerged only before making an attack.

Air attacks

The Second World War showed that the aircraft-carrier was the most important vessel in the fleet. Time and again, carrier-based planes were successfully used against single ships and fleets. The British attack on the Italian battle fleet in harbour in Taranto in November 1940, and the Japanese surprise attack on the American fleet in Pearl Harbour in December 1941 both confirmed the end of the age of the battleship. So did countless sinkings of individual ships by aircraft. Only the carrier, with her own aircraft to defend her, could hope to stand up to attack by bomb- and torpedo-carrying aircraft.



▲ **Maritime aviation** has come a long way since the early experiments of pioneers like the American Glenn Curtiss (inset), shown making a wobbly take-off in his odd-looking Curtiss

biplane. The nuclear-powered carrier *Enterprise* (above) carries more than 100 aircraft, has a crew of 4,600, and cost more than £185 million to build.

The submarine was still able to score successes against battleships and carriers. But the chief strength of the submarine remained its ability to sink merchant shipping. One of the most crucial battles in the war was the so-called Battle of the Atlantic. This was the name given to the struggle by the Allies to defeat the threat of the German U-boats, which sank millions of tons of shipping. The Allies eventually won, with the help of radar and their efficient escort vessels and aircraft.

Battle for the Pacific

In the Pacific, the Americans and the Japanese fought many hard battles. Carriers clashed at the Battles of the

Coral Sea and Midway in 1942. Battleships and cruisers fought a series of desperate battles in the waters around the island of Guadalcanal in 1943.

The biggest fleet action ever

At Leyte Gulf, in 1944, the biggest fleet action ever fought involved every type of ship then afloat. In the battle the Americans lost only three small carriers and two destroyers against Japan's crippling loss of three battleships, four fleet carriers, ten cruisers and nine destroyers. It was the terrible end of the Japanese Pacific Fleet. The battle paved the way for America's reconquest of the Pacific, and eventually for victory in the East.

TOMORROW'S SEA WAR

Until recently, naval battles were fought within seeing distance of the enemy. The invention of long-range missiles, however, means that opponents no longer need to be in sight of one another. Once an enemy target's exact position is known, it can be attacked from a long way away.

The helicopter carrier 'Moskva' (Moscow) is one of two such vessels used by the Russian Navy. The ship's Kamov helicopters track down submarines, which can then be attacked by the carrier's rockets and missiles.

A Russian Kamov Ka-25 helicopter from the *Moskva* hovers close to the sea's surface to lower a sonar transmitter/receiver into the water. When a submarine is traced, the helicopter sends its position back to the ship by radio.

Several navies have ordered Patrol Hydrofoil Missile (PHM) vessels. They skim along on their hydrofoils, which act like underwater wings, raising the hull above the sea's surface. The PHMs can fire their anti-ship missiles while travelling at more than 40 knots in rough seas.

Sound waves from the sonar travel through the water and bounce back off any metal object. The target's range can be worked out from the time the signal takes to return.

The PHM's three hydrofoils raise it out of the water to reduce drag.

The sonar beacon sends out signals. It can detect subs by listening for the signals being bounced back.

This nuclear-powered hunter/killer submarine of the United States Navy is designed to track and destroy enemy submarines. It uses sonar to find its prey. Its torpedoes home onto noise or the enemy ship's magnetic field.

Homing torpedo

Three big changes have affected the development of warships in the 30 years since World War 2. One is the introduction of nuclear power, nuclear weapons and guided missiles. A second is the fact that by far the biggest navies in the world now belong to the U.S.S.R. and the U.S.A. Third, submarines and vessels to counter them have become the most important types of warship.

Nuclear submarines

Submarines with nuclear power came into use in the 1950s. These submarines can stay underwater all the time, only surfacing to change their crews, and have almost unlimited range.

The Americans have also built nuclear-powered aircraft-carriers, including the *Nimitz*, which is the largest warship ever built. She is over 1,000 feet long, and has a crew of nearly 6,000 men. She can carry over 100 aircraft. But in any future war carriers would be an easy target for submarines, aircraft or guided missiles.

Polaris, Poseidon and Subroc

Submarines became even more deadly with the development of nuclear weapons small enough to be launched from them. Polaris and Poseidon are submarine-launched missiles which attack land targets. Subroc is a nuclear depth-

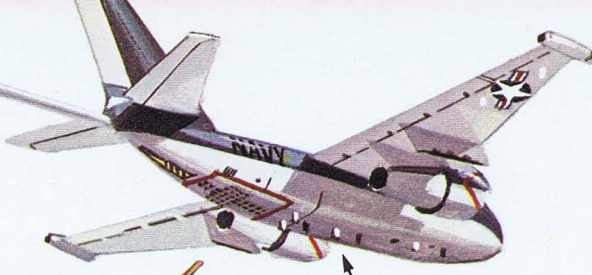
charge that can be fired into the air from firing tubes on a submarine on its way to its target, another submarine.

Hunter/killers on the attack

Submarines have to be tracked down before they can be attacked. And often they can avoid discovery by diving. The best way to attack a submarine is with another submarine—a hunter/killer.

One of the best ways of finding submarines is from the air. Helicopters are ideal for this, when they are helped by large land-based aircraft carrying sounding equipment. Many modern warships carry helicopters and are equipped with all kinds of electronic aids for

An SS-N-8 missile blasts skywards after being fired from the Delta sub. The missile's first-stage rocket motor does not ignite until it is out of the water. Maximum range is nearly 5,000 miles.



The US Navy's Lockheed S-3A Viking anti-submarine aircraft operate from aircraft carriers. They drop sonobuoys which listen for underwater noises and radio back information when they detect a submarine.

Styx missile

'Komar' (Mosquito) fast patrol boats operated by Russia and her allies each carry two SS-N-2 Styx anti-ship missiles. With their high-explosive warheads, these home onto enemy vessels up to 25 miles away.

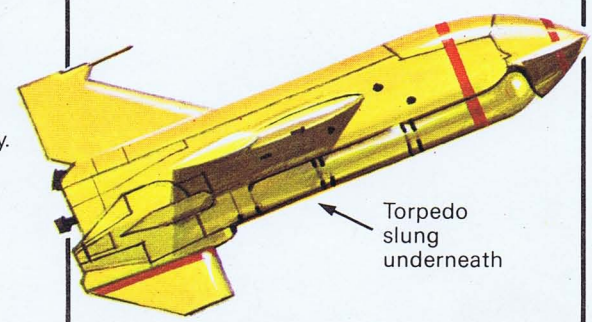
Radio signal

Sonobuoy

The Russian Navy's nuclear-powered Delta-class submarines are the biggest and most powerful underwater vessels ever built. They carry 12 or 16 long-range SS-N-8 ballistic missiles which can be launched while the boat is submerged. The Deltas patrol under the oceans waiting for the order to fire.

Robot killers

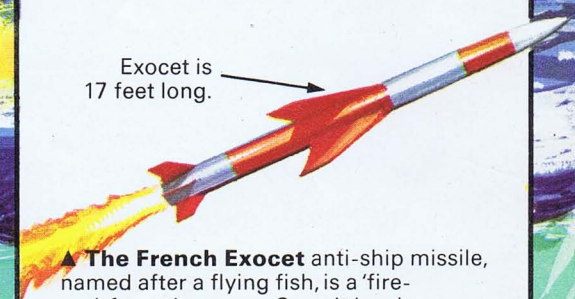
Missiles can be launched from planes, ships, submarines and coastal bases to attack targets at great ranges. Some weapons need men and computers to guide them, but others are steered automatically from launching to impact. These are called 'fire-and-forget' missiles.



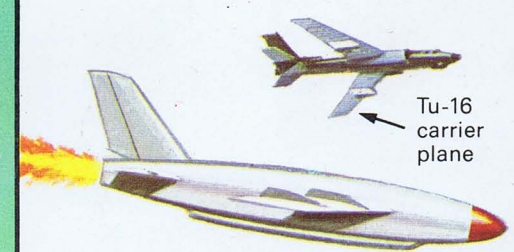
Torpedo slung underneath

▲ **The Australian Ikara** anti-submarine missile is launched from ships. It flies until it is near an enemy sub and then drops a torpedo which homes onto the submerged vessel and destroys it.

Exocet is 17 feet long.



▲ **The French Exocet** anti-ship missile, named after a flying fish, is a 'fire-and-forget' weapon. Once it has been launched from a plane or a ship it automatically attacks its target.



Tu-16 carrier plane

▲ **The AS-5 Kelt** air-to-surface missile is dropped from Tupolev Tu-16 Badger bombers of Russia's Naval Air Force. It carries a radar homing head which searches for the enemy ship to be attacked.



Seawolf is about 6 feet long.

▲ **Britain's new Seawolf** surface-to-air missile can intercept planes or even low-flying anti-ship missiles approaching their targets at more than twice the speed of sound.

tracking submarines. Helicopter-carriers are also often equipped with missiles for attacking aircraft and other ships.

In the past 20 years the Soviet Union has built up the world's second biggest navy. Its vessels are to be seen in every ocean. Though its first aircraft-carrier has yet to enter service, it has helicopter-carriers, heavy cruisers armed with guns, missile-armed destroyers, nuclear-powered submarines, and small, fast missile-boats and hydrofoils.

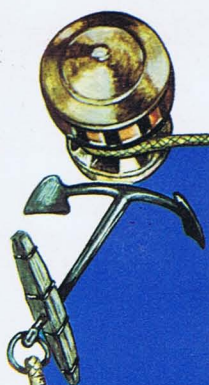
Missile-boats at war

In 1967 a missile-boat built in Russia but belonging to Egypt sank an Israeli destroyer with a Styx missile. When the

Israelis were at war with Egypt and Syria again in 1973 they defeated the Styx-armed boats. They used speed to dodge missiles and then sank their rivals with their own Gabriel missiles and gunfire. Fast and effective missile-boats were shown to be important, however, especially in the navies of small countries.

The future of fighting ships

In future, warships will certainly continue to be essential to any nation with a sea coast. Aircraft are useful, of course, but in the end it will be surface ships and submarines that will control the vast sea-covered areas of the world.



TIMECHART

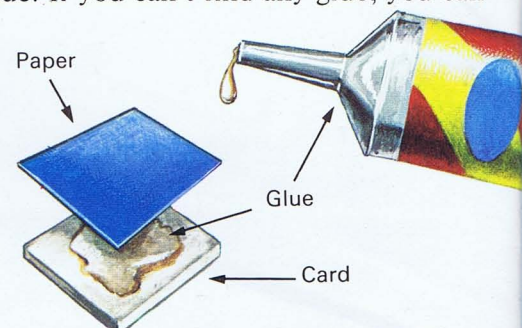
This timechart gives the dates of some of the most important events in naval history. Use it to pinpoint the order in which the things described in this book happened. The first two dates are approximate.

BC	
c.2750	First known picture of a ship, showing an Egyptian trading vessel.
c.1200	Rise of Phoenician sea power in the Mediterranean.
480	Battle of Salamis. Greek triremes defeat the navy of King Xerxes of Persia.
260	First Punic War between Rome and Carthage. Carthaginian fleet is defeated by Roman galleons at Mylae.
AD	
476	Fall of Rome. Her naval power had been in decline for centuries.
793	Viking raids get under way with the destruction of the monastery of Lindisfarne, off Britain's Northumberland coast.
1028	Canute accepted as King of Norway. His empire, which already includes Britain and Denmark, marks the height of Viking power.
1492	Columbus's discovery of America opens up navigation of the Spanish Main.
1513	Britain's <i>Mary Rose</i> is the first ship built with gun-ports.
1571	Battle of Lepanto. Decisive victory of the combined fleet of Spain, Venice and the Papal States over the Turks. It is the last great battle between fleets of galleys and the first in which cannon are used effectively.
1588	Defeat of the Spanish Armada by the ships of England.
1621	Formation of the Dutch West India Company, to trade in the Spanish Main.
1628	West India Company Admiral Piet Heyn captures entire Spanish silver fleet.
1652	Start of first naval war between the Dutch and the English. Two others followed within the next 20 years.
1666	Four Days' Battle in the Straits of Dover. Dutch victory over the English.
1759	Battle of Quiberon Bay. British victory over French in Seven Years' War.
1794	Battle of the Glorious First of June.
1797	Battles of Cape St. Vincent and Camperdown—British victories over the Spanish and Dutch fleets.
1798	Battle of the Nile. Admiral Nelson destroys France's Mediterranean fleet.
1805	Battle of Trafalgar. Nelson's greatest victory, over French and Spanish fleets.
1827	Battle of Navarino. Turkish navy destroyed at anchor by a combined French, Russian and British fleet. Last great battle fought entirely under sail.
1859	France launches the <i>Gloire</i> —the first ironclad.
1862	In the American Civil War, the first battle between ironclads (the <i>Monitor</i> and the <i>Merrimac</i>) is fought in Hampton Roads.
1876	Power-operated gun-turrets first put in warships.
1905	Battle of Tsushima. Decisive Japanese victory in Russo-Japanese War. Construction of the <i>Dreadnought</i> begun in England.
1916	Battle of Jutland. The only clash between the main British and German fleets in World War 1.
1922	First purpose-built aircraft-carriers built in Britain and Japan.
1941	Japanese air attack on the American Pacific Fleet in Pearl Harbor.
1942	Battles of the Atlantic and the Mediterranean at their heights. The convoy code-named Operation Pedestal gets through to Malta. Battle of Midway—American victory over Japanese fleet.
1944	Battle of Leyte Gulf. America wins the last and biggest clash of World War 2.
1967	Styx missile fired from an Egyptian patrol boat sinks the Israeli destroyer <i>Eilat</i> .

IMPROVING AND STORING GAME PIECES

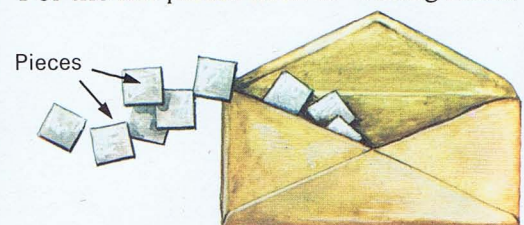
The pieces on pages 20 and 21 are designed to be cut out and used as they are. They will last a long time if you strengthen them with backings of thin card, as shown in the illustration below.

The best card to use is the sort that postcards are made out of. Cut the pieces out of the book in groups, and glue them onto the card, using any strong household glue. If you can't find any glue, you can



use transparent sticky tape instead. Then carefully cut the individual pieces out with a craft knife or scissors.

You will need to store the pieces in a safe place, so that none of them get lost. For the flat pieces used in 'Viking Raids'



and 'Silver Fleet' you can use an envelope. Small cardboard or plastic boxes are best for folding pieces, like the ships used in 'Frigate!' or the aircraft squadrons of 'Battle for the 'Med''. Whatever you use, mark the name of the game on the front. Keep all four sets together in a drawer or on a shelf.

Making your own pieces

When you are used to playing the games, you may wish to use more exciting and colourful pieces than the paper pieces supplied with this book.

With some practice you will be able to make your own pieces out of card. Cut them to the shape of the spaces on the boards. Then you can use your imagination to draw and colour Viking raiders and their enemies, or Spanish silver galleons and merchant ships and Dutch privateers.

You can even make model ships to use for 'Frigate!' Make the hulls from modelling clay and use toothpicks with paper sails attached to serve as masts. If you make the hulls from balsawood, you can paint in gun-ports and ship decorations.



HOW
TO
PLAY

VIKING RAIDS



A game for two, three or four players.

The 9th century AD. Viking fleets are ravaging the coasts and rivers of

Europe, carrying raiding parties that strike far inland. Sometimes they find treasure unprotected, but at other times they are made to fight for it.

1 The pieces

VIKINGS	EACH BASE (HEDEBY, LADE, KAUPANG, AGGERSBORG) HAS :-		
		MOVES PER TURN	FIGHTING VALUE
	3 FLEETS OF LONGSHIPS	DICE THROW	1
	2 RAIDING PARTIES	2 SPACES ON LAND	2
THE KINGDOMS	8 ARMIES	SEE SECTION 8	2
	10 TREASURES	SEE SECTION 7	-

2 Extras

A dice

3 Object of the game

Each player controls one of the Viking bases. Players send fleets and raiding parties in search of treasure. The first player to get three treasure pieces safely back to his base wins the game.

4 Setting up the board

All players throw the dice. The one with the highest throw gets first choice of a base, second highest gets second choice, and so on.

Each player puts **two** of his fleets and **one** raiding party in his base. He keeps his other two pieces off the board.

The Kingdom pieces are turned face downwards, shuffled, and placed (still face down) on the spaces marked with stars, one to a space.

Players move in turn. The order of play is Hedeby, Lade, Kaupang, Aggersborg.

5 How to play

In each turn, players can:

- 1 move any or all of their pieces (see section 6).
- 2 turn up Kingdom pieces that any of their pieces have reached (see section 7).
- 3 fight Kingdom armies or other Vikings (see section 8).

6 Moving the Vikings

Viking fleets only move on sea or coastal spaces (coastal spaces are spaces in which there is both sea and land). Raiding parties can move on land and coastal spaces, but can only move over sea spaces if carried by fleets. Each fleet can only carry **one** raiding party at a time.

Players throw the dice to find out how many spaces each of their fleets

can move, throwing separately for each fleet. Once the dice has been thrown the fleet **must** move the number of spaces shown.

Raiding parties can move up to 2 spaces across land in a turn.



SHIPS CARRY
VIKINGS
ACROSS THE
SEA LIKE THIS

7 Treasure

When a Viking piece ends its move on a space occupied by one of the Kingdom pieces, the Kingdom piece is turned face up. If it is an army, the Vikings must fight it (see section 8).

If it is treasure the Vikings can take it, placing it on top of the Viking piece. Viking pieces can only carry **one** treasure piece at a time. They must get it back to their base if it is to count towards winning the game. Other Vikings can rob them of it on the way back, but once it is in the base it is safe from attack.

Each time a player gets a treasure piece into base, he can bring **one** spare piece into his base from the side of the board. The piece cannot move until the following turn.

8 Fighting

When Viking pieces move into spaces occupied by enemy pieces (whether these are hostile Vikings or one of the Kingdoms' armies), the two sides fight a battle.

Each of the players concerned throws the dice. If the defending piece is a Kingdom army, the player on the attacker's left throws the dice for it. Each player then adds the dice throw to the total fighting value of his pieces on the space. Fighting values are listed in section 1. The higher total wins.

WHEN
FIGHTING,
ADD THESE
SCORES
TOGETHER

DICE
THROW

+

FIGHTING
VALUE

If the winner's total is double or more than double the loser's, the losing pieces are destroyed and removed from the board.

If the winner's total is less than double the loser's, the losing pieces retreat. Kingdom armies retreat to the nearest starred space in their kingdom. Viking fleets retreat 4 spaces to a space chosen by the winning player. Viking raiding parties on land retreat back to their fleet; if their player has no fleet on a coastal space of the Kingdom they are in, they are destroyed.

Winning pieces remain in place, and keep any treasure in the space. If this means overloading a fleet, the treasure is 'sunk' and removed from the board.

9 Forming alliances

Players can form alliances to try to prevent other players from winning. But don't forget that alliances can be broken at any time!

10 The end of the game

The game ends as soon as one player has three treasure pieces in his base.

11 Tips on tactics

- One good strategy is to keep a strong force in the North Sea to attack other Vikings carrying treasure home.
- Be careful about taking an early lead—the other players may gang up on you!

12 The two-player game

When there are only two players, each takes two Viking bases. All fleets and raiding parties must start from their own bases. Any of a player's fleets can carry any of his raiding parties, and his fleets can carry treasure back to either of his bases. The game ends when one player gets three treasures in **one** of his bases.





HOW TO PLAY

Silver Fleet



A game for two players

The Spanish Main in the seventeenth century. Spanish treasure ships are sailing from the mainland of America to Havana. They must put in there to take

on provisions before setting sail across the Atlantic with a year's haul of silver in their holds. But Dutch privateers are also roaming the seas. Their aim—to seize the bullion-laden galleons.

1 The pieces

SPANISH SHIPS	MOVES PER TURN	FIGHTING VALUE (FV)
5 SILVER GALLEONS	UP TO 3 CROSSES	5
8 MERCHANTMEN	" " 3 "	2
4 COASTAL PROTECTION GALLEYS	" " 2 " IN COASTAL WATERS	3
DUTCH SHIPS		
10 PRIVATEERS	UP TO 4 CROSSES	4

2 Extras

A dice

3 Object of the game

The Spanish player aims to get his silver galleons to Havana, and then through the Florida Strait to the safety of the open sea—marked on the board by the yellow escape cross.

The Dutch player aims to capture the galleons and sail them to the green escape cross.

The first player to sail **three** silver galleons to his own escape cross wins the game.

4 Starting the game

Players choose sides, one controlling the Spanish ships, the other the Dutch.

The Spanish player puts his pieces on the board first. He places two galleys in Havana, and one each in Trinidad and Caibarién. He then puts his galleons and merchantmen **face down** on the two Spanish starting spaces.

The Dutch player starts the game with all his pieces off the board.

5 Playing the game

The two players take turns to move. The Spanish player moves first.

In his first turn, the Spanish player moves one ship from each of his starting spaces. He can also move any or all of his coastal protection galleys.

In following turns, he can move any or all of his ships already on the board, and can also bring on **one** more ship from **each** starting space.

In the Dutch player's first turn, he can place one ship on any of the crosses marked with red arrows on the right-hand side of the board. In following turns the Dutch player can move any or all of his ships already on the board, and can also bring one more ship onto any of the arrowed crosses.

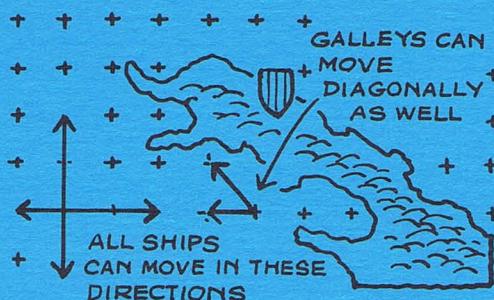
6 How ships move

Ships move from cross to cross. The number of crosses each ship can move over is listed in section 1. Ships cannot move over crosses occupied by enemy ships.

Players can have a maximum of four ships on a cross at a time. The Spanish player can never have more than two galleons on a cross at a time.

Coastal protection galleys are the only ships that can move diagonally. But the galleys cannot move outside of Cuba's coastal waters (shaded pale blue on the board).

Dutch ships cannot move into ports. No ship can move onto galleon starting spaces.



7 Fighting

A player attacks by moving ships onto an enemy-occupied cross. All pieces on the cross are turned face up.

Battles are fought after the attacking player has finished moving all his pieces.

Dutch ships cannot be attacked during their first turn on the board.

Each player throws the dice once. He adds the number thrown to the total fighting value of the ships that he has on the cross. Fighting values are listed in section 1. The player with the higher total wins the fight.

If the winner's total is double or more than double the loser's, the winner takes one ship of his choice. The loser's other ships escape.

ADDING UP FIGHTING SCORES

FIGHTING VALUE

+

DICE THROW

If the winner's total is less than **double**, he throws the dice again. If he throws a **5** or **6**, he takes one of the loser's ships of his choice, and the other ships escape. If he throws a **1**, **2**, **3** or **4**, all the loser's ships escape.

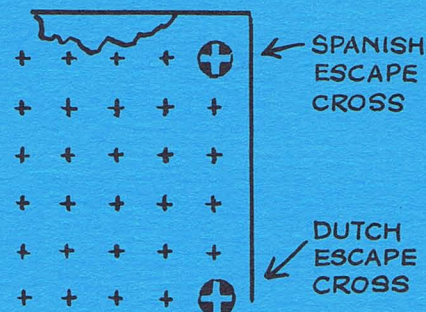
Ships that are taken are sunk and removed from the board, unless they are silver galleons. Silver galleons are captured (see section 8).

Ships that escape retreat four crosses as far to the southwest as possible. If the west edge of the board is reached, they turn south-east. If the coast of Cuba is reached, they turn north-west. Galleys always retreat along the coast towards Havana.

8 Silver galleons

The Spanish player wins by sailing three silver galleons to his escape cross. The galleons must first have put into Havana for at least one turn if they are to count towards winning the game.

Galleons that have reached the escape cross are safe from Dutch attack, and are removed from the board.



The Dutch player wins by capturing three silver galleons and escorting them to the green escape cross. Captured galleons cannot be used as fighting ships by the Dutch. They must be accompanied to the escape cross by at least **one** Dutch ship.

Captured galleons can be recaptured by Spanish ships, if the Spaniards attack and defeat their escort. They must then be escorted by at least one other Spanish ship to the yellow cross.

9 Tips on tactics

For the Spanish player: Sail your galleons to Havana as fast as possible.

- Use merchantmen as decoys to draw privateers away from the galleons, and as a screen to protect galleons near the escape cross.

For the Dutch player: Use the greater speed of your ships to capture single galleons on the way to Havana.

- Form a fleet to attack the enemy in the Florida Strait.

CAREFULLY CUT
ALONG THE DOTTED
LINE. REMOVE THIS
PAGE FROM THE BOOK.
CUT-OUT GAME PIECES
FOR '*VIKING RAIDS*'
AND '*SILVER FLEET*'
ARE ON THE OTHER
SIDE

CUT ALONG THIS DOTTED LINE ✂



THE
PIECES
FOR

VIKING RAIDS



VIKING SHIPS

RAIDING PARTIES

TREASURES

ARMIES

VIKING PIECES

KINGDOM PIECES

SPARE
PIECES



HEDEBY



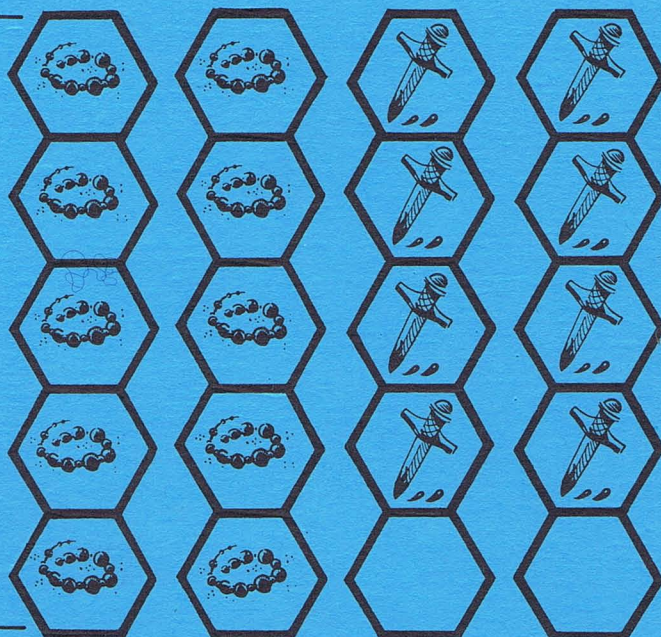
LADE



KAUPANG



AGGERSBORG

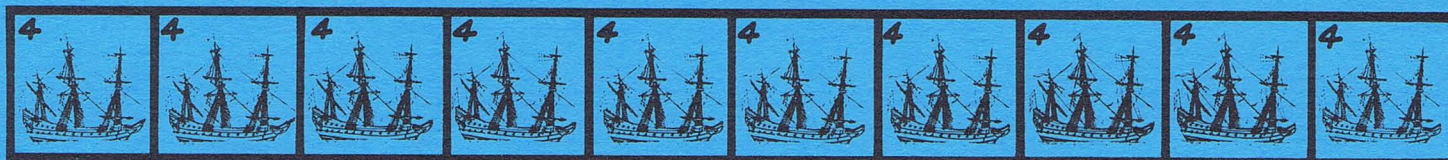


THE
PIECES
FOR

Silver Fleet



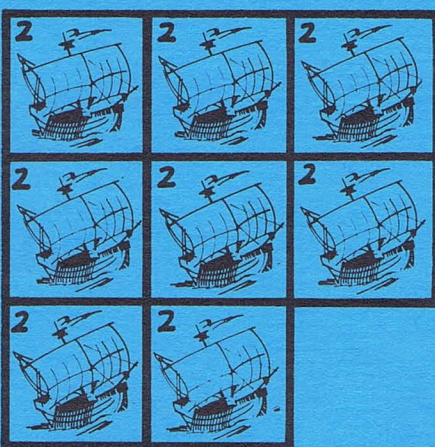
DUTCH
PRIVATEERS



SPANISH SHIPS

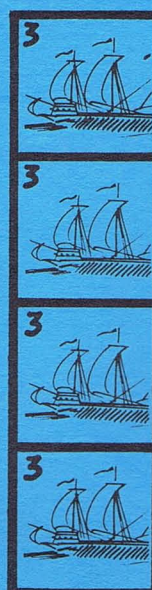


SILVER
GALLEONS

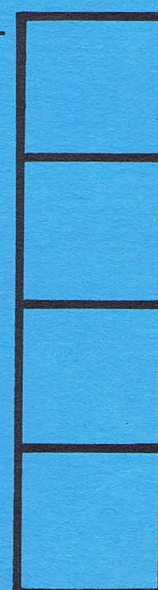


MERCHANTMEN

COASTAL
PROTECTION
GALLEYS



SPARE
PIECES



THE NUMBER IN THE CORNER
OF EACH PIECE SHOWS
ITS FIGHTING VALUE

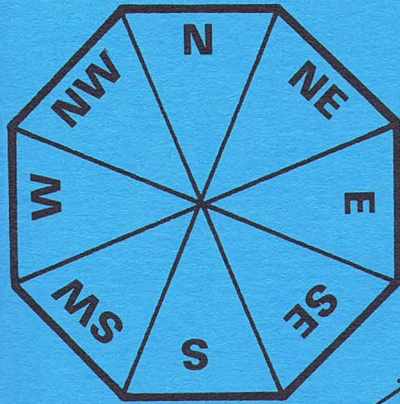


THE
PIECES
FOR

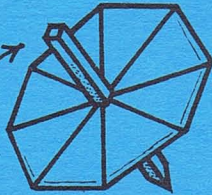
FRIGATE!



WIND DIRECTION SPINNER



SHARPENED
MATCHSTICK



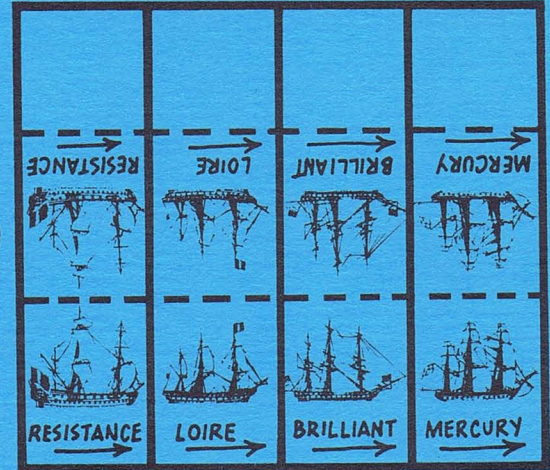
WIND
DIRECTION
ARROW



WIND TIMER

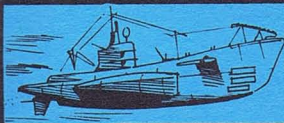


ASSEMBLE
THE SHIP
PIECES
LIKE THIS.
FIX WITH
TRANSPARENT
TAPE.



FRENCH
SHIPS

BRITISH
SHIPS



THE
PIECES
FOR

BATTLE FOR THE 'MED'



ALLIED FORCES



TASK FORCES

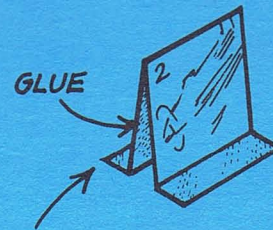


CONVOYS

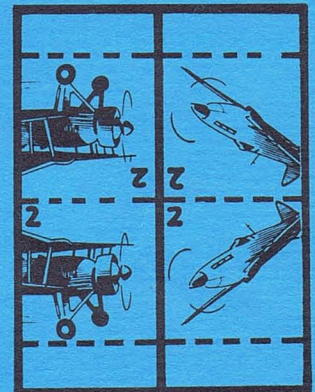
SUBMARINE
PACK



GLUE

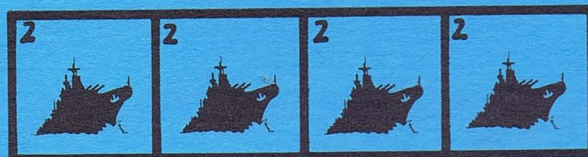


ASSEMBLE
THE
AIRCRAFT
LIKE THIS

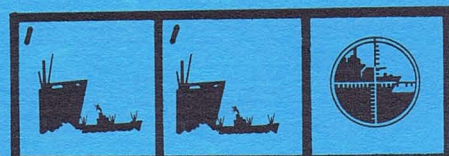


AIRCRAFT
SQUADRONS

AXIS FORCES



TASK FORCES

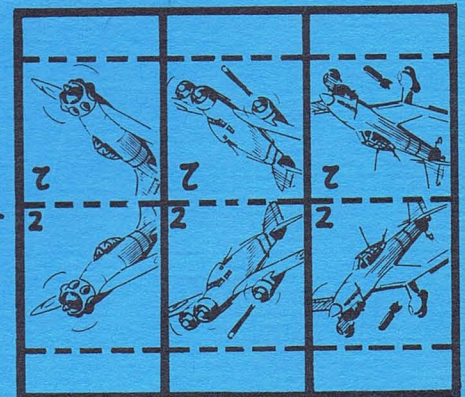


CONVOYS

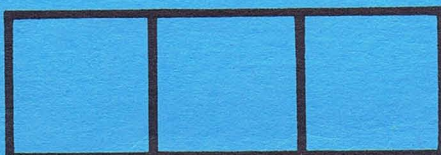
SUBMARINE
PACK



THE NUMBER IN THE CORNER
OF EACH PIECE SHOWS
ITS FIGHTING VALUE



AIRCRAFT
SQUADRONS



SPARE
PIECES

CAREFULLY CUT
ALONG THE DOTTED
LINE. REMOVE THIS
PAGE FROM THE BOOK.
CUT-OUT GAME PIECES
FOR 'FRIGATE' AND
'BATTLE FOR THE 'MED.'
ARE ON THE OTHER
SIDE



CUT ALONG THIS DOTTED LINE



HOW
TO
PLAY

FRIGATE!



A game for two players.

It is 1793. His Majesty's frigates *Brilliant* and *Mercury* challenge *Résistance* and *Loire*, two French frigates based in a port on France's west coast.

1 The pieces

French – two frigates <i>Résistance</i> (36 guns) <i>Loire</i> (32 guns)
British – two frigates <i>Brilliant</i> (36 guns) <i>Mercury</i> (32 guns)
Wind direction spinner Wind direction arrow Timer

2 Extras

A dice
17 used matchsticks broken in half (to represent sets of guns)
32 counters (to represent the crews)

3 Object of the game

The player who destroys both enemy ships wins the game.

4 Setting up the pieces

One player controls the French ships. The other controls the British ships.

The French player puts his two frigates on the marked sea squares.

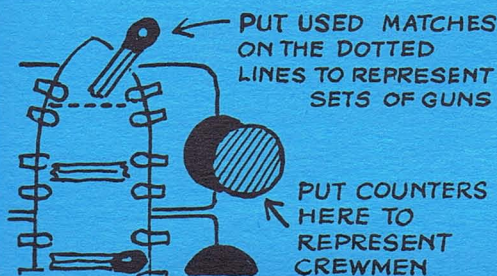
The British player spins the wind direction spinner. This shows the direction the wind is coming **from**. Mark the wind direction on the marker at the top of the board, and place the timer on the point marked **5**.

The British player then puts one of his ships on the square at the edge of the board marked with the wind direction (for instance on the square marked E if the wind is easterly). He puts the other ship on either of the neighbouring marked squares.

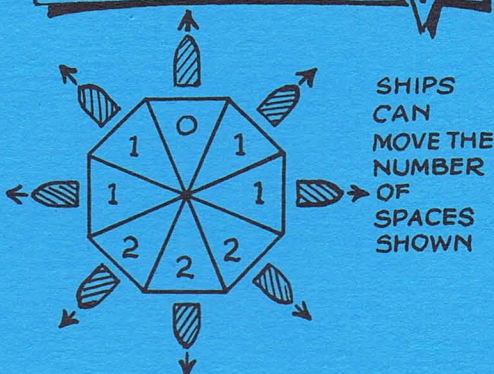
All ships start the game pointing in the direction of the wind direction arrow.

Both players put their 16 crew counters on the circles around the ship diagrams, one counter to a circle.

Matchsticks are used to represent sets of guns, each matchstick representing four cannon. Both players lay their matchsticks on the dotted lines on the ship diagrams.



IF THE WIND IS
BLOWING LIKE THIS



5 How to start

The British player takes the first turn.

In each turn players can:

- 1) Move and turn ships (see sections 6 and 7).
- 2) Move crew counters on the ship diagrams (see section 8).
- 3) Fire broadsides or board enemy ships (see sections 9 and 10).

At the end of the French player's turn the timer is moved down one (from 5 to 4, and so on). After 1 it goes back to 5 again, and the spinner is spun to find a new wind direction (it might stay the same, of course!).

6 Moving ships

Ships move in the direction in which they are pointing at the start of a turn. They move diagonally if they are pointing SE, SW, NE or NW.

Ships that are heading within one compass-point of the direction of the wind (see diagram) can move up to 2 squares. Ships pointing directly **into** the wind cannot move forward (but they can turn—see section 7). Ships pointing any other way can move 1 square.

Ships cannot move through rock squares (outlined in black).

Ships with no crew left on board are removed from the board.

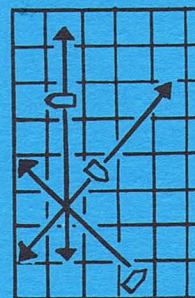
7 Turning ships

After they have finished moving, ships can turn through one point of the compass (for example, from north-west to either north or west).

A player can choose to use any or all of his ship's movement allowance for turning instead of moving. So a player whose ship is in a position to move 1 square forward can **either** move it 1 square forward and turn it through 1 point of the compass, **or** not move it forward but turn it through two points of the compass.

8 Moving crews

Crew counters 'man' the guns nearest them, as shown on the board. Each turn, players can move crew counters from one space to another, to man different guns. If a player's two ships are on adjoining squares he can move crew counters from one ship to the other.



SHIPS CAN FIRE
IN THE
DIRECTIONS
SHOWN; ONE
BROADSIDE AT
A TIME, UP TO
4 SPACES AWAY

9 Firing broadsides

After moving and turning, ships can fire broadsides at enemy ships in their line of fire (see diagram). Remember that men-of-war fired sideways! The ships have a range of four squares.

The attacking player throws the dice. He adds the dice throw to the number of sets of guns (i.e. matchsticks) able to fire on his ship. Guns with no crew counters to man them are not able to fire. Only crew counters on the side of the ship that is firing count.

If the enemy ship is in a position to fire back, the enemy player does the same. The player with the higher total wins. If the totals are the same, both ships have missed and play continues.

If the enemy ship is not in a position to fire back, the attacking ship wins automatically.

In either case, the losing player's total (which is 0 if he cannot fire back) is taken away from the winner's. If the difference is an **odd** number (say $7-4=3$), the winning player takes any **crew counter** he likes from the losing ship. If it is an **even** number (say $6-0=6$), he takes a **set of guns**.

Crew counters and guns that are taken are removed from the board.

The attacking player's dice throw is doubled if he shoots at a range of 1 or 2 squares.

10 Boarding

A player can board an enemy ship when one of his ships is on one of the squares next to it.

Ships cannot fire a broadside **and** board in the same turn.

Each player throws the dice, adding to the dice throw the number of crew counters left on his ship.

The player with the higher total is the winner. The loser's ship is captured and removed from the board, but the winner must put a prize crew of 3 men from his own ship aboard it. These are lost as well.

11 The shore battery

British ships that end a move on any of the red-shaded squares are in range of the French shore battery.

During his turn the French player can fire at them by throwing the dice. A 1, 2 or 3 is a miss. If he throws a 4 or a 6, he takes a set of guns from the British ship. If he throws a 5, he takes a crew counter.



HOW
TO
PLAY

BATTLE FOR THE 'MED'



A game for two players

1942. The Allies and the Axis powers are fighting for control of the Mediter-

anean Sea, and are struggling to get convoys of essential war materials to their bases in Malta and North Africa.

1 The pieces

ALLIED FORCES		MOVES EACH TURN	FIGHTING VALUE
5	TASK FORCES	UP TO 3 SPACES	2
3	CONVOYS	" " 3 "	1
2	AIRCRAFT SQUADRONS	" " 5 "	2
1	SUBMARINE PACK	" " 3 "	SEE SECTION 8
AXIS FORCES			
4	TASK FORCES	" " 3 "	2
2	CONVOYS	" " 3 "	1
3	AIRCRAFT SQUADRONS	" " 5 "	2
1	SUBMARINE PACK	" " 3 "	SEE SECTION 8

2 Extras

A pack of playing cards
A dice
One counter

3 Object of the game

One player controls the Allies, the other controls the Axis pieces.

Players score points (represented by the pips on the playing cards) by completing successful convoy runs and by destroying or damaging enemy forces.

The winner is the player with the most points after 10 moves, or when the pack of cards runs out.

4 Setting up the pieces

The Allied player puts his pieces on his three bases—Gibraltar, Malta and Alexandria. One convoy starts from Alexandria and two from Gibraltar. Task-forces start from Gibraltar and Alexandria. Other pieces start from any of the three bases.

The Axis player sets up his pieces on the Axis bases marked with red circles. All task-forces start from Naples. Convoys start from Naples, Taranto or Piraeus. Other pieces start on any of the Axis bases.

Shuffle the pack of cards, and keep it at the side of the board.

Place the counter on space 10 of the timer.

The Allied player moves first.

5 Moving

Each player can move any or all of his pieces each turn. Pieces move up to the number of squares shown in section 1. **Diagonal moves are not allowed.** There is no limit to the number of pieces a player can have on a square at a time.

Moving out of base onto the arrowed square counts as 1 space of a move.

Remember that submarines cannot move more than 4 squares from their base (see section 8), and that all aircraft pieces must go to the return track (see section 7) each time they are used.

The counter is moved one space down the timer each time the Axis player finishes his turn.

6 Attacks

Players attack by moving a piece or pieces onto a square occupied by enemy forces. Submarine packs and pieces in bases cannot be attacked.

Each player then throws the dice, adding the number thrown to the total fighting value of his pieces on the square. Fighting values are listed in section 1. Convoys do not attack; their fighting value only counts if they are attacked.

The player with the higher total is the winner.

If the winner's total is double or more than double the loser's, the losing pieces are destroyed and removed from the board. The winner picks two cards from the top of the pack for each piece destroyed. The loser replaces the destroyed pieces, placing them on the 'Replacement pieces' square on his return track.

If the winner's total is less than double the loser's, the losing pieces are damaged. The winner picks one card from the top of the pack for each piece damaged.

Damaged ships are turned upside down, lose one point from their fighting value, and continue in play until they reach a friendly base. On entering this they leave the board, going to the 'Damaged pieces' square on the return track. Damaged ships that are attacked and damaged again are destroyed. Damaged convoys that reach their base win cards as usual.

Damaged planes leave the board at once and go to the 'Damaged pieces' square on the return track.

7 The return tracks

Each time that an aircraft squadron is used, or that a task-force or convoy reaches base, or that a piece is destroyed, the pieces are removed from the board and are placed on their player's return track.

Undamaged pieces go to square 2, damaged pieces to square 3, and replacements for destroyed pieces start on square 4.

Pieces on the return tracks move along one square each time their player takes a turn. When they return to the board, they start from one of their player's bases as at the beginning of the game.

8 Submarines

Submarines can move up to 3 squares in a turn, but cannot move more than four squares from the base they started from.

Submarines do not attack like other pieces, but each time enemy ship pieces move through or onto a square occupied by one its player immediately throws the dice. The results are as follows:

SUBMARINE DESTROYED ~ GOES TO SQUARE 4 ON RETURN TRACK

ATTACK FAILS ~ SUBMARINE GOES TO SQUARE 2 ON THE RETURN TRACK

ATTACK SUCCESSFUL ~ ALL ENEMY SHIPS ARE DAMAGED AND UNESCORTED CONVOYS ARE DESTROYED

ATTACK SUCCESSFUL ~ ALL ENEMY SHIPS ARE DESTROYED

9 Winning points

Players score the pip value of the cards they win. Kings, Queens and Jacks all count 10. Aces count 1.

Cards are won as follows:

ALLIED CONVOY TO MALTA CARDS

AXIS CONVOY TO TRIPOLI CARDS

AXIS CONVOY TO BENGHAZI CARDS

DESTROYING AN ENEMY PIECE CARDS

DAMAGING ENEMY PIECE, OR DESTROYING A DAMAGED PIECE CARDS

10 The end of the game

The game ends after the Axis player's tenth move, or earlier if the pack of cards run out.

Each player adds up the total pip value of the cards he has won. The player with the higher total wins.

THE VIKINGS



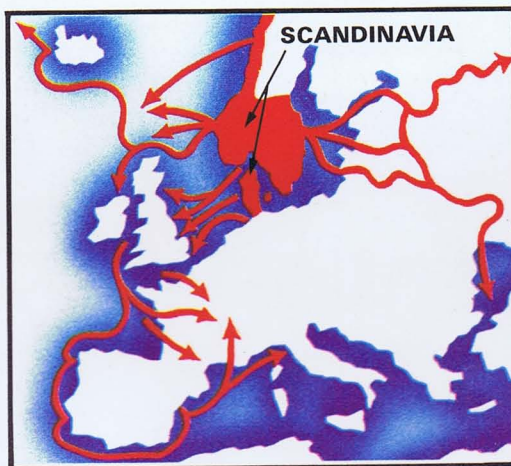
AD 800. Helmeted raiders in longships swoop upon the unprotected coasts of Britain. These sailor-warriors from the fjords of Scandinavia are the Vikings, and they are to change the face of Europe.

The Vikings, or Northmen, were pirates and raiders. In their remarkable boats called longships they sailed as far as America in the west and the Caspian Sea (now in Russia) in the east.

Longships were clinker-built—that is, the planks overlapped each other. This made them strong and seaworthy. They had heavy keels and high posts, sometimes decorated with animal heads, at the bow and stern. A typical longship had a mast for a single sail, and from 16 to 25 oars on each side, which were used when the wind was unfavourable or when preparing for a battle.

Reign of terror

Wherever they went the Vikings spread terror. They were not Christians and often attacked monasteries and churches, which were rich in gold and treasures. One of the first places to be raided, in 793, was the monastery of Lindisfarne, off the Northumbrian coast of Britain.



▲ From bases in Scandinavia, the Vikings travelled throughout Europe as well as eastward into Russia and westward to America.

Scotland and Ireland were also raided.

At first the raids took place only between spring and autumn, when the Vikings went home. But in the 840s their armies began to winter on their island bases. The raiding season became much longer. With stolen horses the raiders could go even farther afield. Some local rulers, like Alfred in England, managed to hold up the Viking conquests for many

years. But in the end they were no match for their enormous armies.

Conquests and colonies

The Viking raids ended only when they settled in a country, bringing their families with them. Sometimes they were given the land, sometimes they just took it. Norwegian Vikings were given lands in northern France. Their descendants became the Normans. Other Norwegians sailed as far as North America, and settled in Scotland, Ireland, the Orkneys and Shetlands, Iceland and Greenland.

Danish Vikings established themselves in England in the 800s. They did not conquer the whole country until 1013. In 1016 the English accepted as king Canute, who also ruled Denmark and who went on to conquer Norway.

The Vikings in the East

Swedish Vikings settled round the shores of the Baltic. They sailed up the rivers, and by a short overland journey reached the Volga and the Dnieper. They established themselves as princes in the Russian cities of Novgorod and Kiev. They even reached Constantinople, in what is now Turkey.

VIKING RAIDS





MEDITERRANEAN SEA

EAST
FRANKISH
KINGDOM

WEST
FRANKISH
KINGDOM

Bremen

Utrecht

Amiens

Lyons

Arles

London

Abbeville

Paris

Poitiers

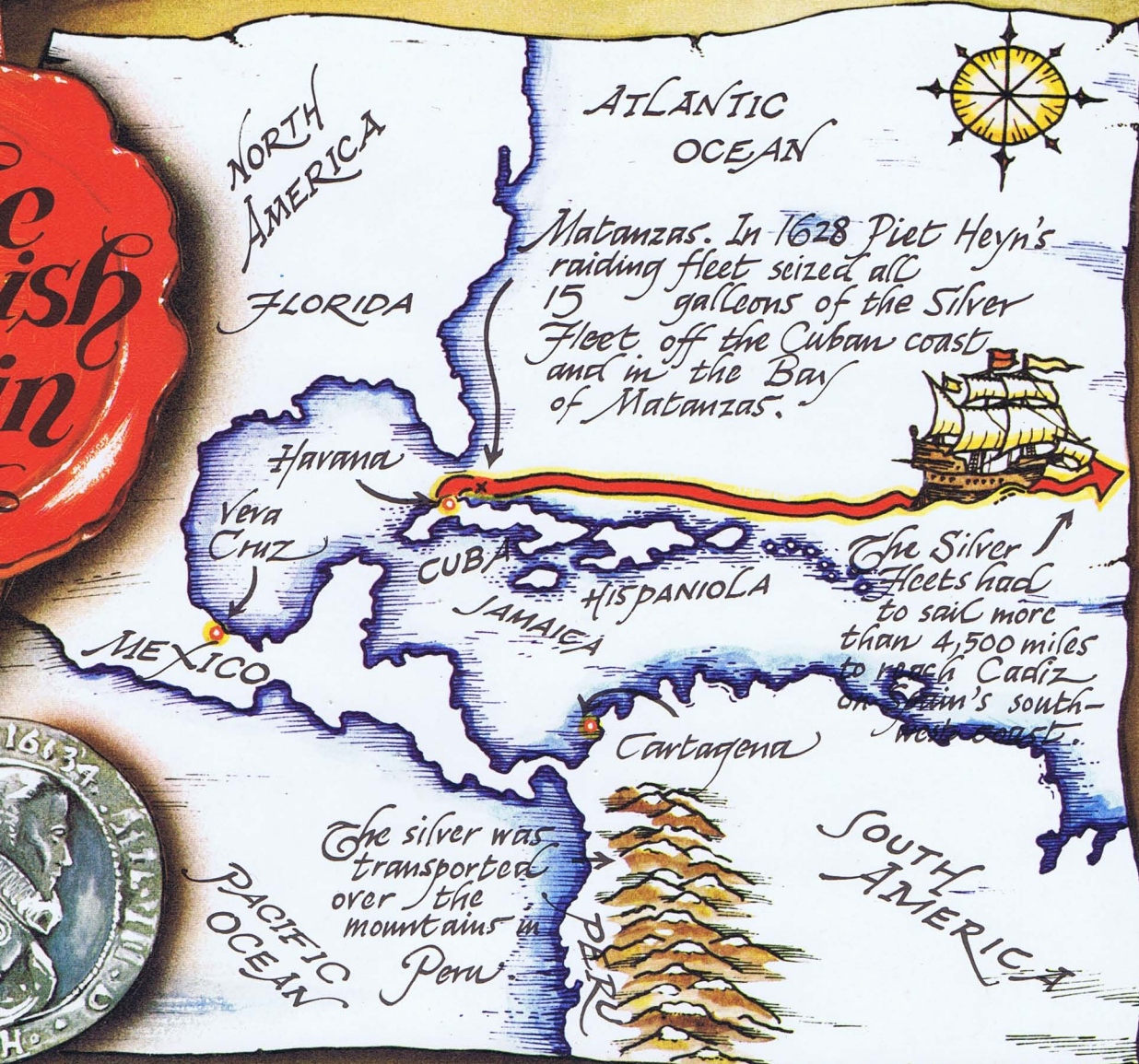
Bordeaux

Toulouse

WESSEX

Nantes

Cork



This map shows the areas of Central and South America from where the Spaniards obtained their treasure. From Havana in Cuba, the Spanish galleons had to make the long crossing of the Atlantic Ocean—in danger all the while from French, Dutch and English raiders.

In the half-century after Columbus discovered America, Spain won for herself a vast empire in the New World. The Caribbean Sea off the central American coast became the Spanish Main. But foreign rivals were unwilling to leave the riches of America to Spain alone. . . .

The first Spanish invaders bartered or stole the gold of the Caribbean islands from the native people. Then they put the natives to work to find more gold in the islands' streams. But in 1519 Cortes invaded Mexico, and in 1531 Pizarro took Peru. The gold and silver mines of these countries were discovered. The Spaniards took away huge quantities of bullion.

The silver fleet

The bullion, mostly silver, was collected in treasuries in the main towns of Spanish America. It was taken

overland to the ports of Vera Cruz, Cartagena and Nombre de Dios, then in galleons to Havana, in Cuba. From there, every year, the silver was shipped to Spain. The silver fleet sailed in convoy for protection, as single ships were a tempting prey for pirates.

The enemies of Spain

Spain had many enemies who envied her wealth. And she aroused their anger by allowing none but Spanish ships from Seville to trade in America.

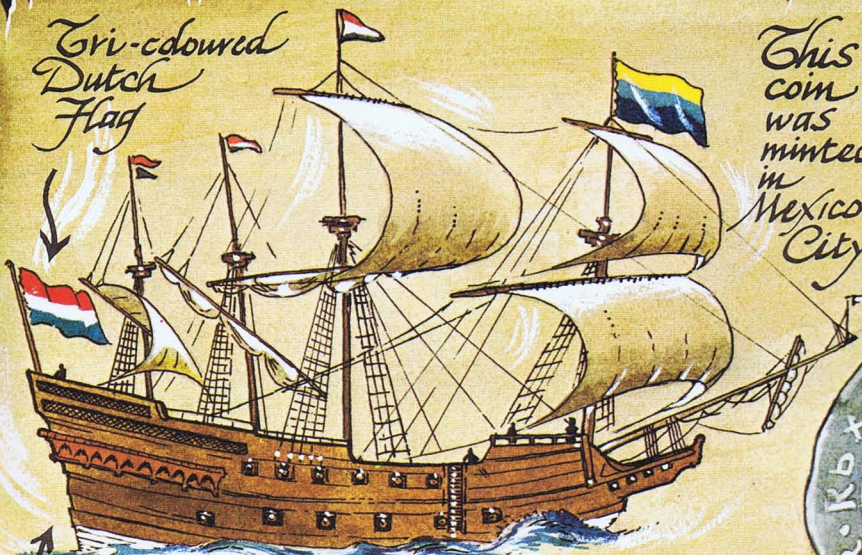
The French, who had already settled parts of Florida, wanted a share in the riches of the Spanish Main. They attacked Spanish ships, raided Cartagena, and in 1556 attacked Havana. As a result, the Spaniards had to strengthen Havana's defences. Then the French became occupied with wars at home and the Spaniards raided their Caribbean

bases. All this only made Spain's position stronger. So when, in about 1560, the English under Richard Hawkins tried to loosen Spain's stranglehold on American trade, they did not at first use force. Hawkins landed goods and African slaves in the towns of the Spanish Main. Some Spanish governors turned a blind eye, but others did not. Hawkins had to fight.

Drake's raids

Hawkins was accompanied on his voyages by his cousin, Francis Drake. Drake soon became a thorn in the side of the Spanish. He raided and even captured some important towns in the Spanish Main. In 1578, he captured a ship that was sailing from Callao, in Peru, to Panama. It was crammed with plate and jewellery as well as 26 tons of silver. He and his crew and Queen

*Tri-colored
Dutch
Flag*



*This
coin
was
minted
in
Mexico
City*



*Most Dutch ships were small and fast enough to catch the lumbering galleons carrying the Spanish treasure.
Piet Heyn took a fleet of 31 ships, carrying 700 cannon and 4000 soldiers.*



"Pieces of eight" were named after the Spanish 8-real coin. The coin just above (marked with an X) was minted in 1734.

Rivals for the mineral wealth of the Americas — at right, King Philip II of Spain; on the left, one of his chief enemies, Francis Drake of Queen Elizabeth I's England.

Elizabeth I all had a share of the booty. The Queen's share was worth perhaps as much as £300,000. When Drake returned to England Elizabeth knighted him. The Spaniards were extremely angry. They were not officially at war with England, so they considered Drake to be a pirate.

After the death of Hawkins and Drake, it was the Dutch who became the chief threat to the Spaniards. They set up bases on the coast of Venezuela and Guyana, and did very well out of illegal trade. They even forced the Spaniards out of some of their settlements.

Piet Heyn's triumph

In 1621 the Dutch formed the Dutch West India Company. This was a powerful organization which could trade and make war. In 1628 the Company's admiral, Piet Heyn, had a splendid success. He captured the whole of the homebound

silver fleet off Matanzas, not far out of Havana. Spain never fully recovered from the loss. The Dutch, English and French were able to settle on the islands of the Caribbean.

The buccaneers

Now the mastery of the seas in the Spanish Main fell into the hands of adventurers called buccaneers. They came from many countries and fought only for themselves. In their pirate ships they attacked the Spaniards whenever they could. In 1671 Henry Morgan gathered together an unruly band of buccaneers and led them in a raid on the wealthiest city in Spanish America, Panama. The Spaniards had moved a lot of the city's treasure, but the city itself was burned.

The buccaneers terrorized the Spanish Main until the end of the 17th century. They stole treasure in great quantities

from Spanish ships and towns both in the Caribbean and on the Pacific coast. But they gambled away what they took, or buried it in secret places where it has never been found.

By the 1700s the wealth of the Spanish Main had dried up. Some of it had gone to England, some to Holland, but most of it had gone to Spain itself.

The end of Spain's wealth

But Spain was no better off for it. Over the years the bullion had put up prices. The government had spent too much, mainly on wars. So the people could not afford the goods they needed, and, when the treasure ships stopped coming, the government could not pay back the money it owed. From being the richest country in the world, Spain in the 18th century became one of the poorest in Europe.



Silver Fleet





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Spanish
escape

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F L O R I D A S T R A I T

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Dutch
escape

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← This marks the
edge of the coastal
waters of Cuba

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TRINIDAD



CAIBARIEN

+

+

THE TACTICS OF FIGHTING SAIL

Napoleon came to power in France at the end of the 18th century, and soon his troops were storming through Europe. His armies swept all before them. But the navies of France and her allies were less successful. A series of British victories came as the climax of the age of the wooden walls.

The war with Napoleonic France was a serious threat to Britain's trade with her colonies in India, North America and the West Indies. Troopships and merchant ships suffered from French attacks. The British Navy retaliated by blockading many French ports. Many single-ship actions were fought.

The order of sailing

Fleets generally sailed in three divisions, side by side. This order of sailing was important, as it allowed vessels to take up positions quickly either to port (the left) or starboard (the right). The admiral, in his flagship, sailed in the front, or van, of the middle division. This put him in the middle of the fleet when the line of battle was formed—the best position from which to judge what to do.

The direction of the wind was always important in sea battles. The fleet to leeward—furthest away from the direction of the wind—had the advantage of being able to withdraw if it wanted. On the other hand, the ships to windward could choose the position for their attacks. The British preferred to fight to windward, the French to leeward.

As many men as possible were needed to man the guns in battle. For this reason ships reduced sail when in action. The sails on the foremast were often used to manoeuvre during the battle. But the masts and sails could be shot away, and then the ship would drift helplessly.

Smoke and signals

The cannon of the time used a powder which gave off a great deal of smoke. During battles it soon became impossible to see more than a few yards. This meant that the windward fleet had a slight advantage, since the smoke cleared from their decks first.

The smoke of battle also hid the admiral's signals from the other ships in the line. So a frigate was stationed out of line to repeat the flagship's signals.

Doubling the line

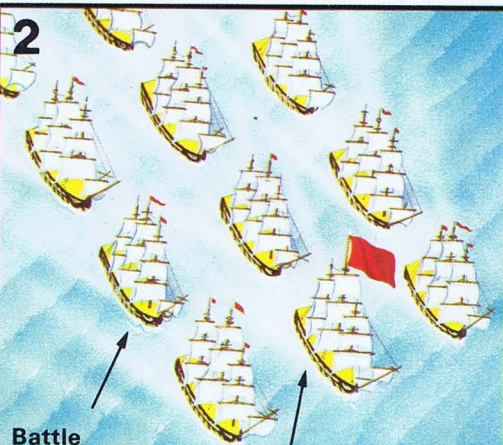
Admirals attacking an enemy line tried to concentrate their fire on its rear and centre, rather than on the van. Ships in the van then had to sail back to help the others. But the attacking admiral had to make sure that the rear and centre were defeated before the ships of



Turning into line

Ships fought in line to make the best use of their guns. But line formation was not the best way to approach the enemy, who could attack at the head of the line. So the fleet had to turn into line.

Key to ships



Battle fleet sails in three columns, so several ships can turn into line together.

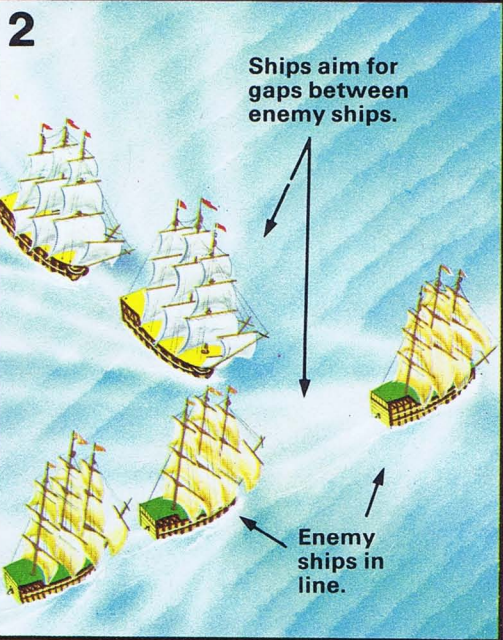
Flagship of the fleet sails at the head of the middle column.



Breaking the line

One of the disadvantages of fighting in line was the chance that it gave the fleet to leeward to break off the action.

British admirals, who knew that their ships' gunnery was better than their opponents', therefore developed the tactic of breaking the line. With ships on both sides of it, the enemy fleet could not escape. An added advantage was that parts of the fleet could be cut out of the action. Admiral Nelson used this tactic to achieve decisive victories.



Ships aim for gaps between enemy ships.

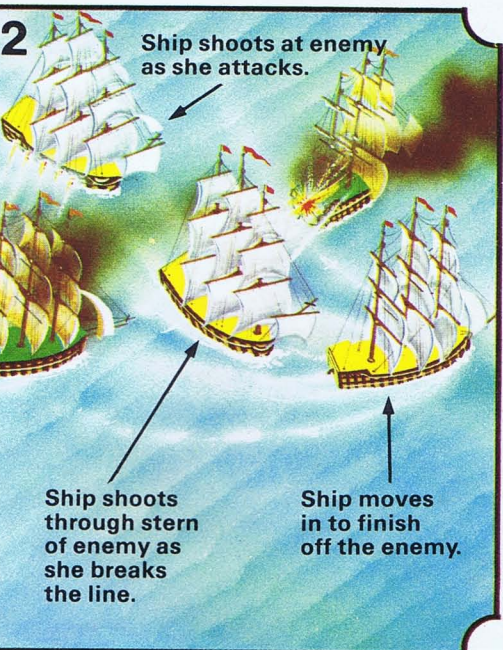
Enemy ships in line.



Raking the enemy

Another advantage of breaking the line was the chance it offered of 'raking' – firing along the length of – the enemy vessel. As they passed its unprotected stern, gunners on the attacking ship could take careful aim at its crowded gun decks, tearing guns from their moorings and killing the gun crews.

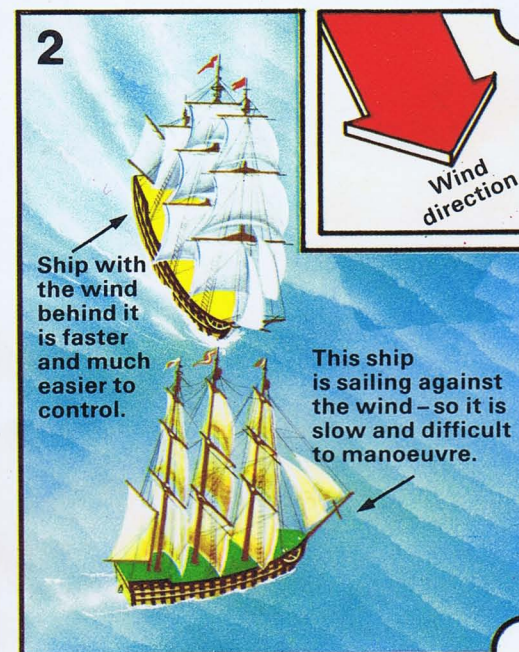
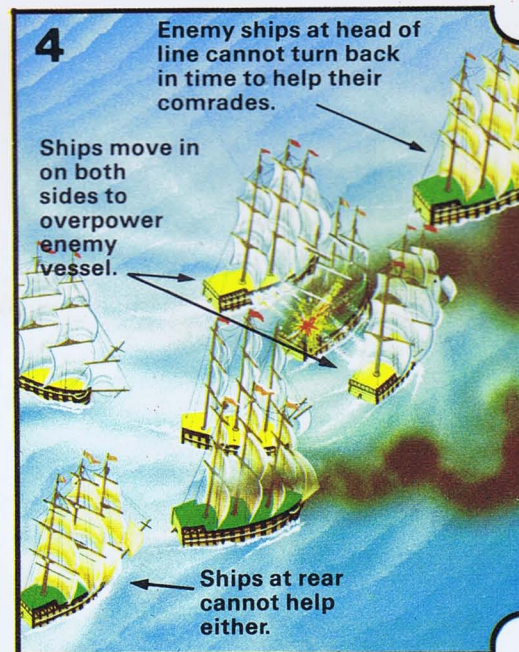
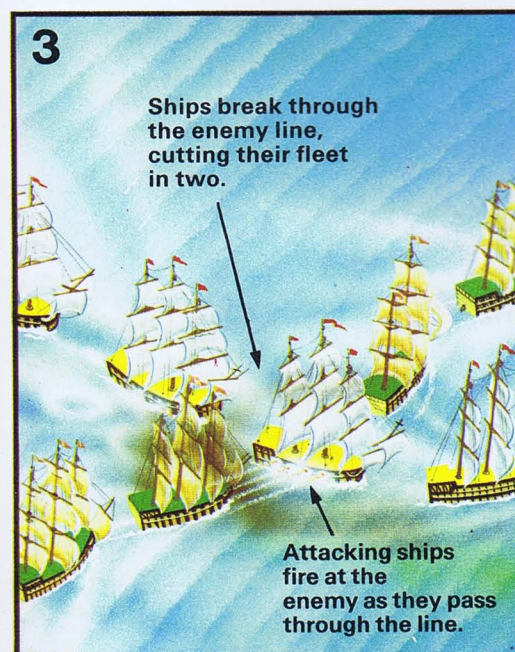
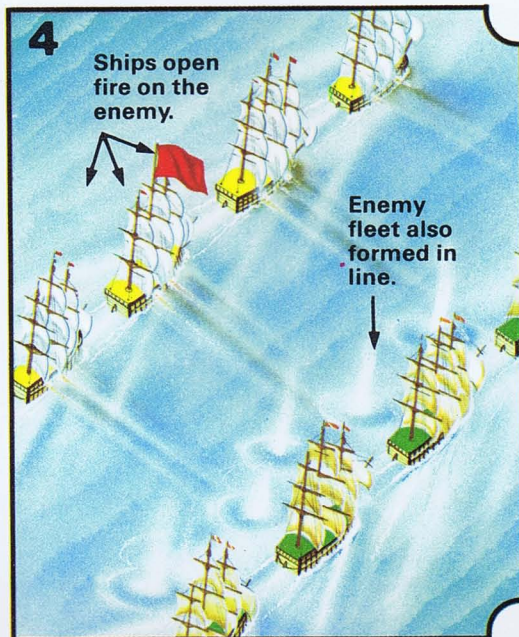
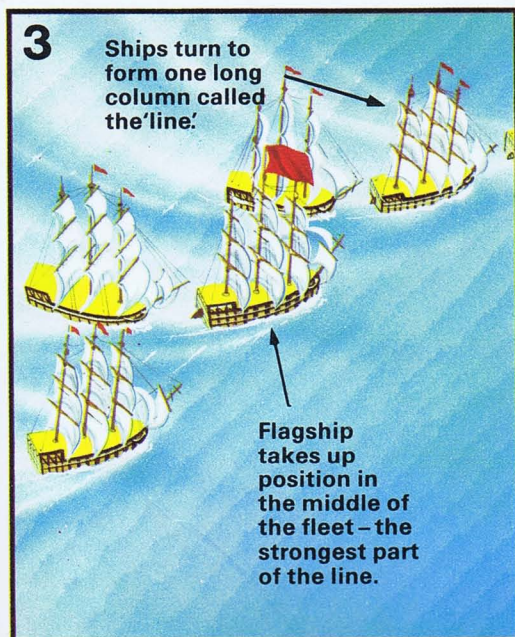
Raking broadsides of carronades – short-barreled cannon that fired heavy balls over short distances – could force an enemy ship to surrender within minutes. They were the most effective guns at point-blank range.



Ship shoots at enemy as she attacks.

Ship shoots through stern of enemy as she breaks the line.

Ship moves in to finish off the enemy.



the van arrived. To do this he 'doubled' his line, that is, he stationed ships on both sides of each enemy ship. Since ships could fire only one full broadside at a time, this could be devastating.

Nelson's ships doubled the French at the Battle of the Nile in 1798. The French admiral, de Brueys, had anchored his ships in line, and could not manoeuvre fast enough once he realized what Nelson was doing.

The decisive battles

There were six big naval battles in the wars which broke out in 1793 and continued until the defeat of Napoleon in 1815. Lessons were learned from each and tactics gradually perfected.

In 1794 the British Admiral Howe defeated the French off Ushant. This battle is known in England from its date as 'the Glorious First of June'. Howe had helped to improve signalling in the navy. When he saw the French fleet to leeward he ordered his fleet by signal to break through the enemy line and then fight on the leeward side to prevent them escaping.

As it happened, most of the French ships were too close together for the British to break through, but six out of twenty-six were captured, and one sunk. Howe's idea was good, and Nelson copied it at Trafalgar in 1805.

The Battle of Cape St. Vincent

The next great battle was fought in February 1797, off Cape St. Vincent. The British attacked the Spanish, who had split into two divisions. Nelson, in the *Captain*, captured two Spanish ships after disobeying orders and breaking out of the line. His actions showed that the admiral's signals did not count for everything. The commander of a division or a ship had to be able to take the initiative when necessary.

In October of the same year the British defeated the Dutch off Camperdown. This time the British fought to leeward, to cut the Dutch off from their base. It was a fierce battle, in which the heavier guns and better gunnery of the British won the day. Nine Dutch ships were captured.

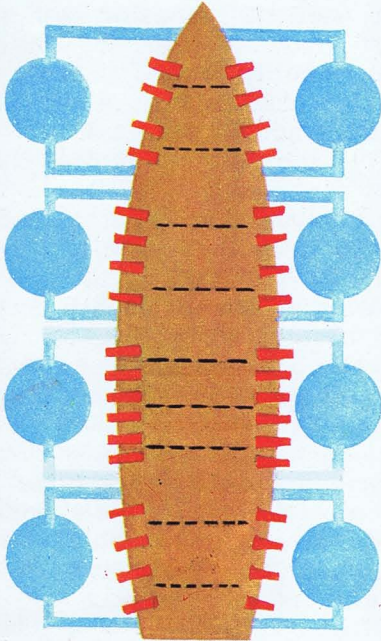
Nelson's victories

Nelson's victory at the Battle of the Nile in 1798 was followed by his defeat of the Danish fleet at Copenhagen in 1801. Both battles were fought against fleets at anchor. Both showed that British gunnery could win battles decisively. They convinced Nelson that, if he could only bring it to battle, he could destroy the whole French fleet.

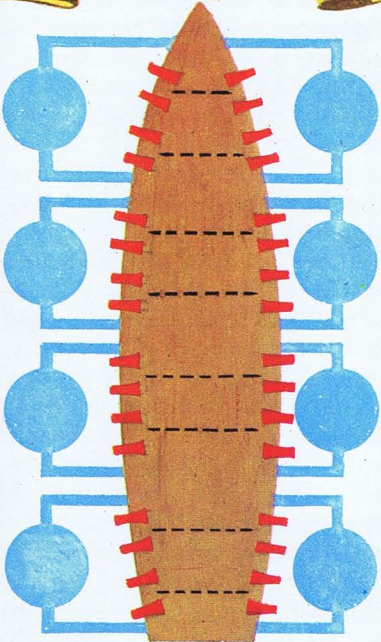
At Trafalgar his plan was put into effect, and his judgement proved correct.



FRANCE



Résistance



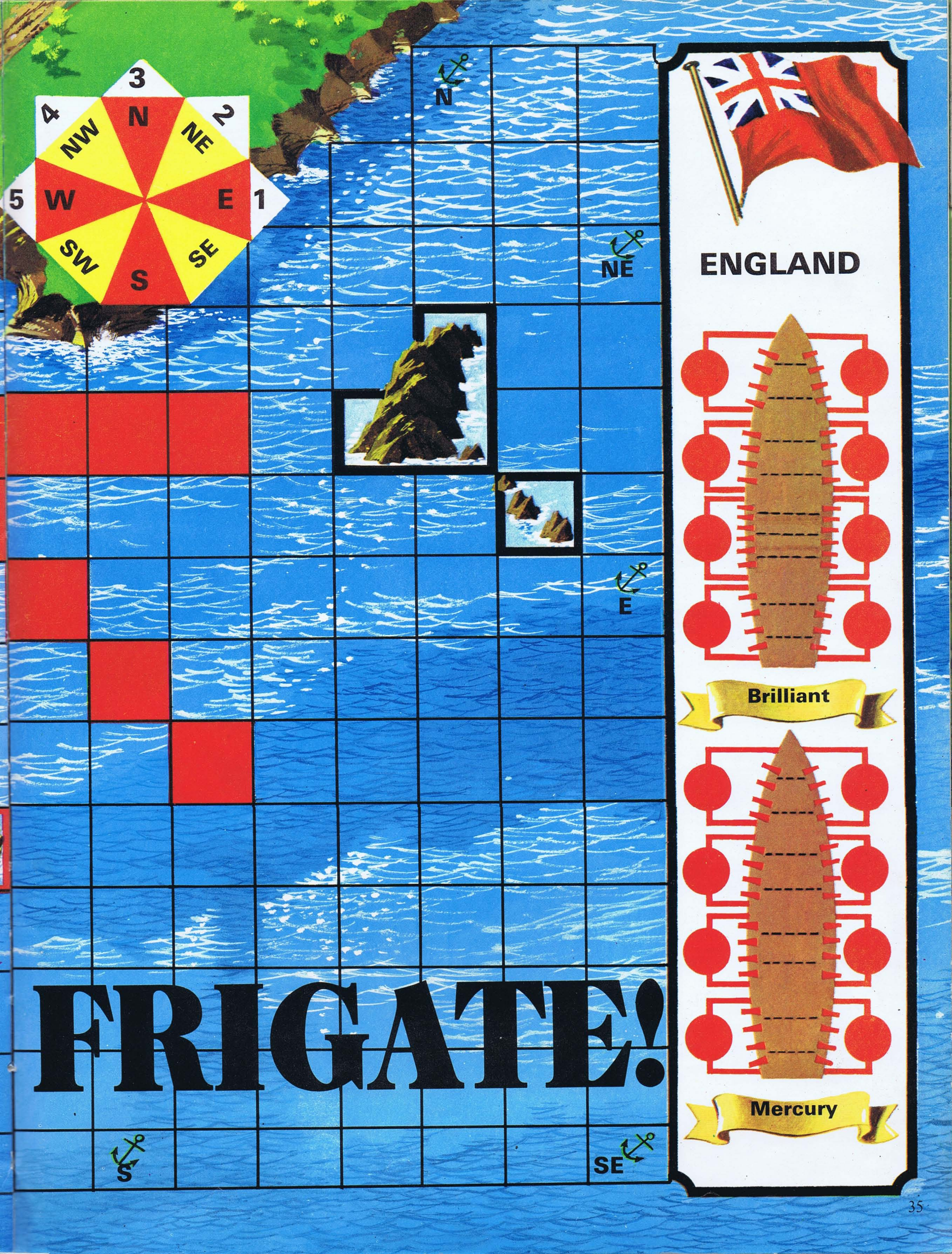
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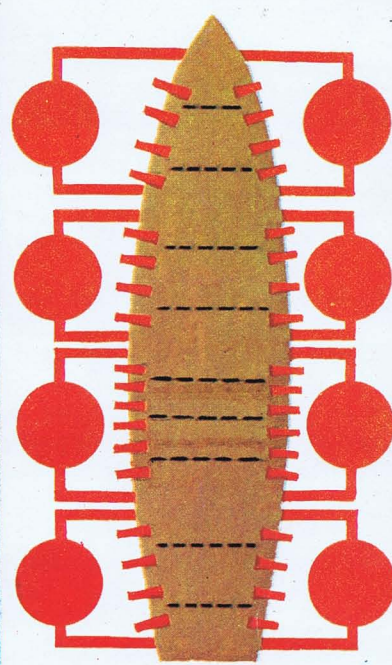
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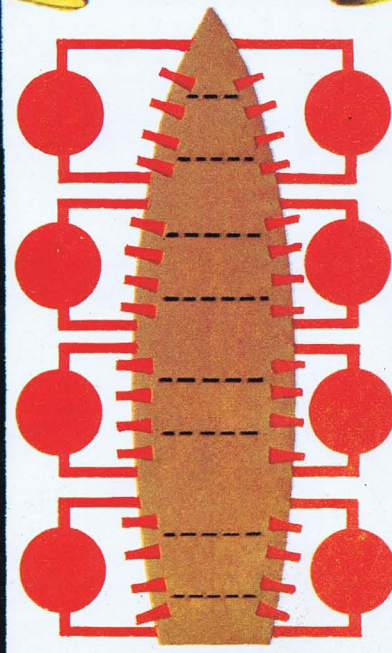
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ENGLAND



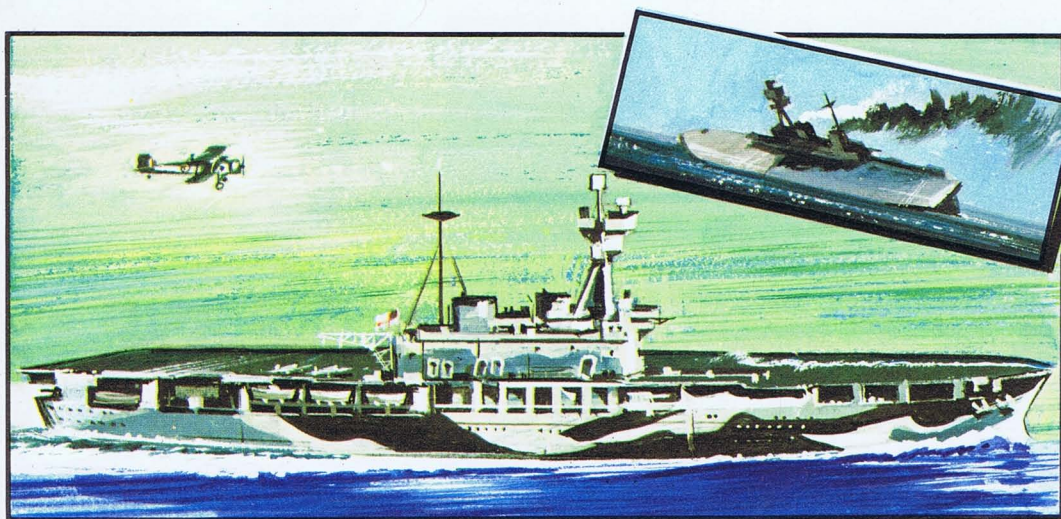
Brilliant



Mercury

FRIGATE!

THE SIEGE OF MALTA



▲ **The 'Eagle'**, one of Pedestal's aircraft-carrier escorts, steams along at her top speed of 20 knots as a torpedo-bomber flies over her deck. Early on in the operation, four torpedoes fired

from a German U-boat sank her. She went down (inset) within eight minutes, taking 160 of her crew and most of her aircraft with her. The few planes that survived landed on other carriers.

1942. World War 2 was at its height. The Axis powers, Germany and Italy, controlled much of Europe and North Africa. Britain was fighting from its bases in Gibraltar and Malta to keep a foothold in the Mediterranean. But Malta was running short of food and fuel...

When France surrendered to Germany in 1940, Britain was afraid that the French fleet might be taken over by the Axis powers and used against Britain. So a British task-force was sent to Oran in Algeria, where it sank most of the French fleet.

Taranto and Cape Matapan

The Italian fleet now posed the greatest threat to Britain. It was based at Taranto, until, in November 1940, the British mounted a crippling attack on it from the air. The Italians then withdrew their fleet to Naples, farther from the main fighting areas.

In March 1941, a convoy on the way to Greece surprised the Italians by arriving with a large protective force. In the Battle of Cape Matapan, the Italians fell into a trap and lost several ships.

The battle for Malta

But the Axis air forces were superb. There were the deadly German Stukas and the Italian torpedo-bombers, especially the three-engined SM79 Sparvieros. Air attacks were made against all convoys and particularly those going to Malta.

Malta was vital to Britain as a base for attacks against Axis convoys. But it was also very close to Italy and North Africa, where the Axis powers were in control. British ships kept Malta supplied with food and fuel for aircraft, but they were in constant danger. For two years the battle for Malta

dragged on. In June 1942 the convoy code-named Harpoon was very badly hit. So in August a better-protected convoy was sent. This was Operation Pedestal.

The threat to Pedestal

The convoy of 14 merchant ships, 4 light cruisers and 11 destroyers set out from Gibraltar. For the first part of the voyage, to the narrows between Sicily and Africa, it was accompanied also by two battleships, four carriers, and more cruisers and destroyers.

The Axis powers attacked it with dive-bombers, torpedo-bombers, submarines, motor torpedo-boats and other surface ships. The first victim was the carrier *Eagle*, sunk by a submarine. The other carriers were damaged before they sailed back to Gibraltar.

Five that got through





As the convoy drew closer to Malta, Stukas and SM79s from Sicilian bases sank and damaged some ships, the Italian submarine *Axum* sank two cruisers of the escort, and during the night there was a devastating attack by Italian E-boats. Aircraft returned to the attack on the following day. Only five ships reached Malta. But one of them was the tanker *Ohio*, with a precious cargo of aviation fuel. The fuel helped Malta-based planes to harass enemy supply ships.

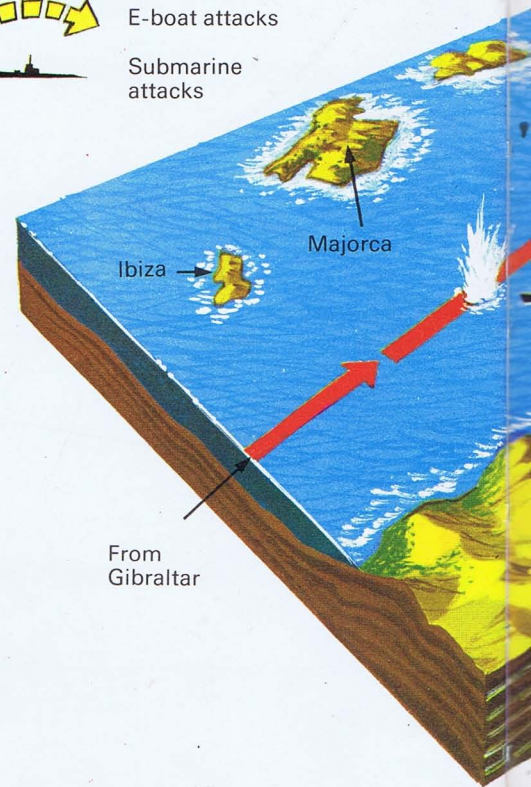
The Allied breakthrough

If the Italians had been able to bring their battleships and heavy cruisers into the battle, Pedestal might not have got even one ship through. But the British raid on Taranto and the victory at Cape Matapan had weakened Italy's naval strength.

In November 1942 the Allies invaded North West Africa, and so won at last a stronger position in the Mediterranean.

Operation Pedestal August 11-13, 1942

-  Route of the convoy
-  Air attacks
-  E-boat attacks
-  Submarine attacks

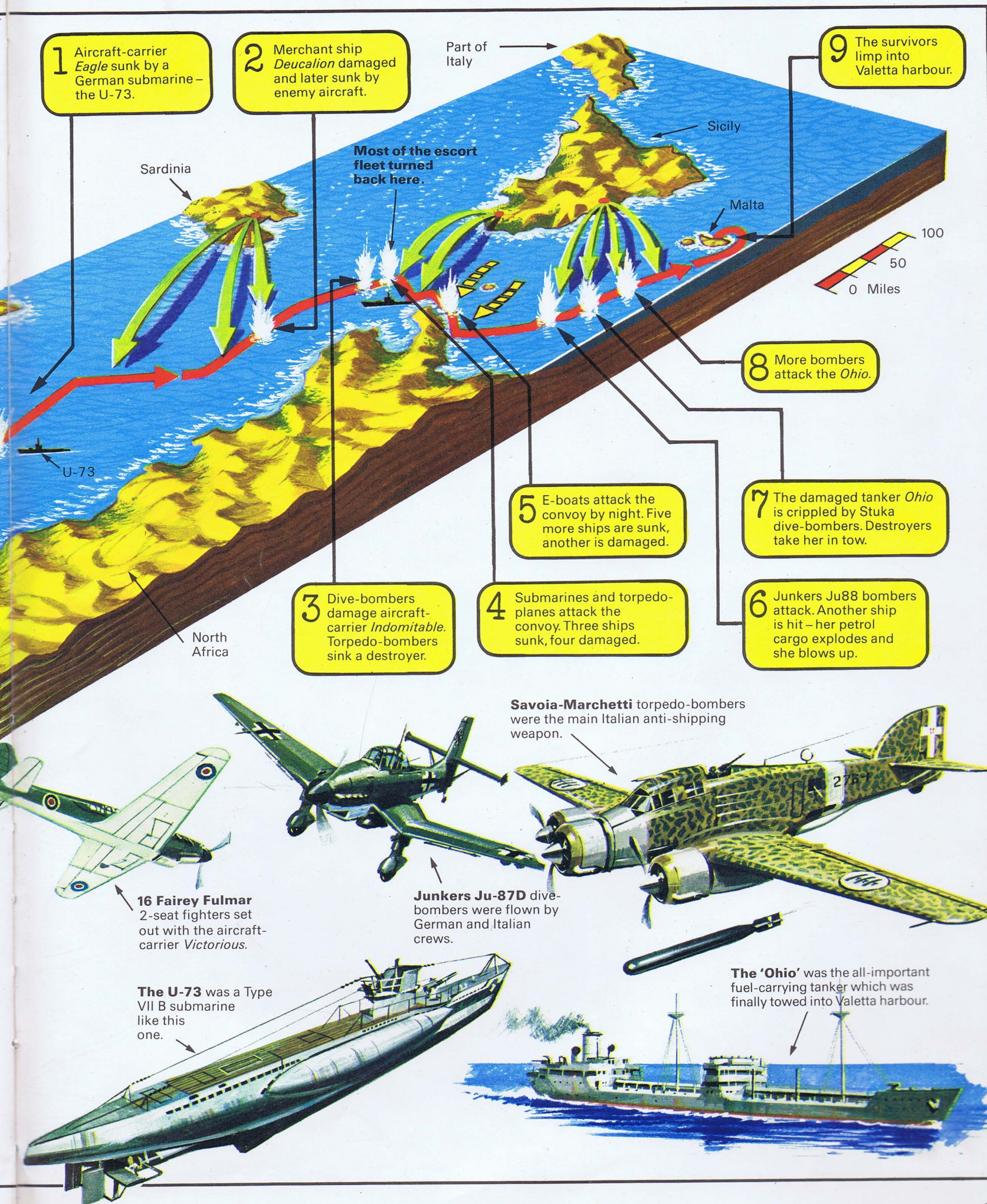


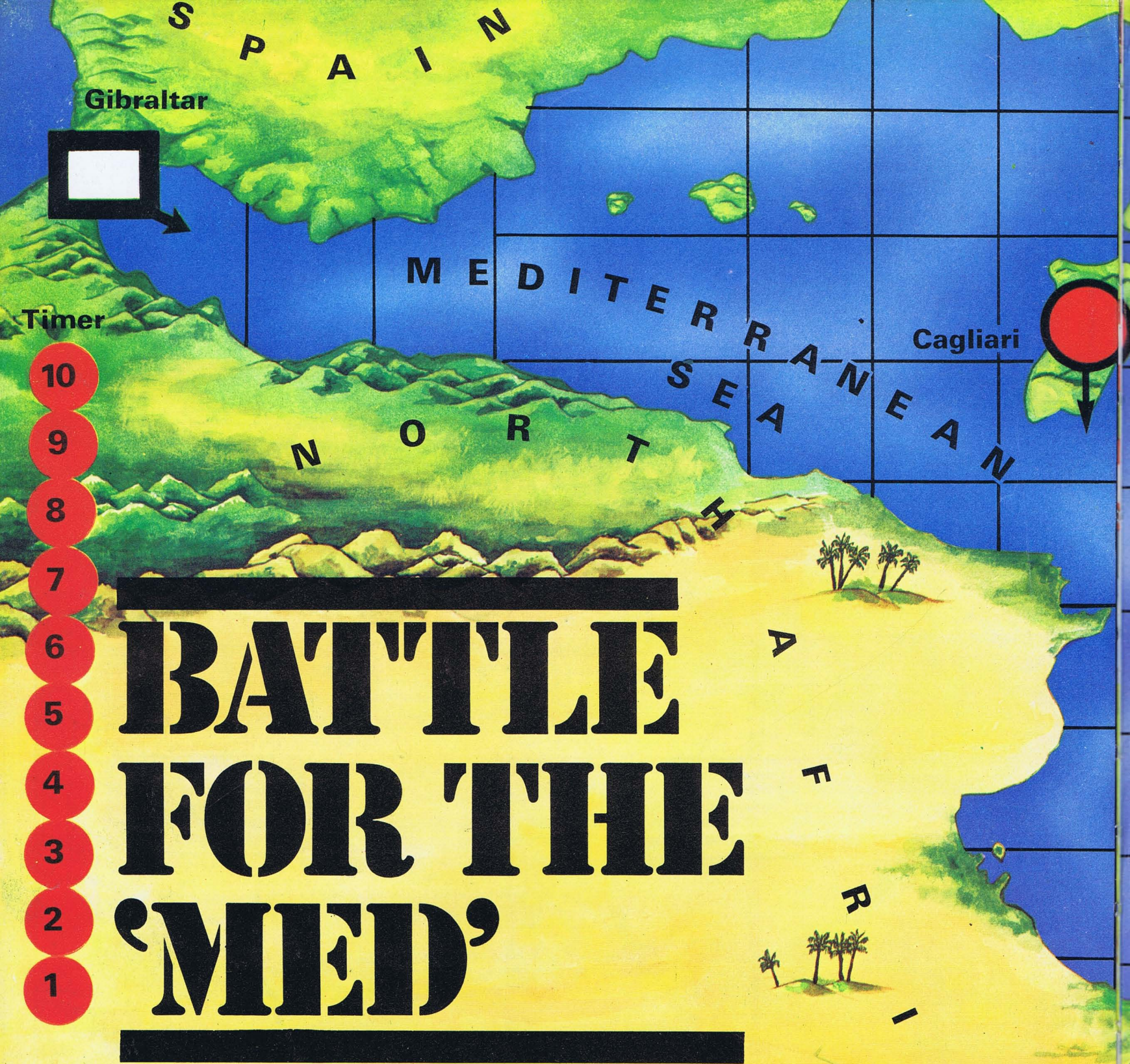
The convoy codenamed Pedestal was heavily protected when it left Gibraltar, but its battleship and carrier escorts could go no farther than the Sicilian Narrows – the tongue of sea between the western tip of Sicily and the North African coast.

German and Italian dive-bombers, torpedo-bombers and submarines harried the convoy during its first two days at sea. But the Axis powers saved their fiercest attacks until after the big guns of the escort fleet had turned back.

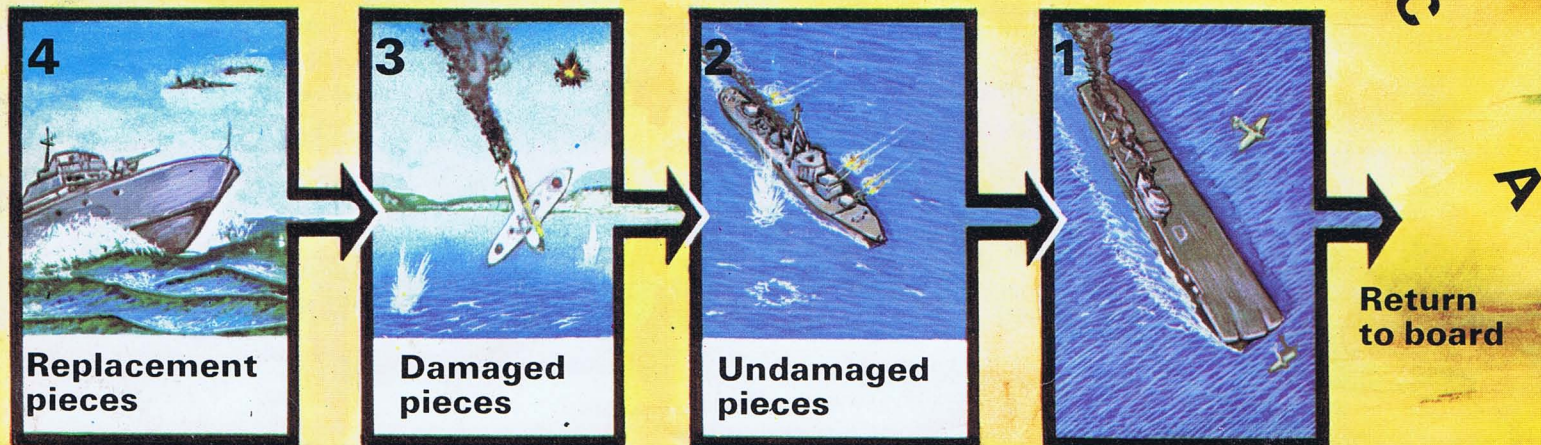
For the last day of its journey, the convoy had to hold out against E-boats, U-boats and bombers with the help of only destroyers, cruisers and some air cover from Malta. Nine of the fourteen merchant ships were sunk, but five reached Valetta.

► **Ships, submarines and aircraft** all joined in the battle for the Mediterranean. Supply lines to the North African battle-front depended on its outcome.





Allied return track





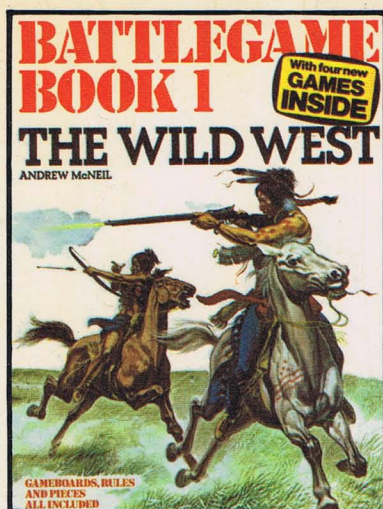
Axis return track



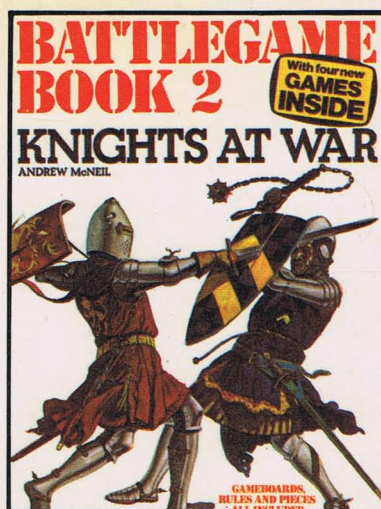
Rules reminder

Axis convoys go to Tripoli and Benghazi.
Allied convoys go to Malta.

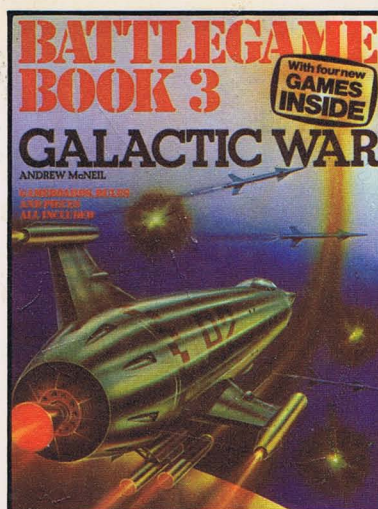
More Battlegame Books, each with 4 combat games



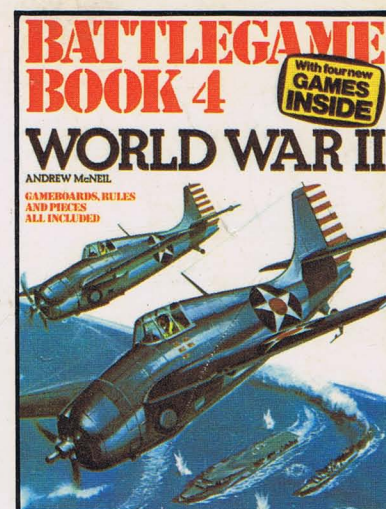
The Wild West tells the story of the pioneers, Indians and cowhands of the American frontier. It includes hunting and railroad-building games, as well as games based on Billy the Kid's greatest gunfight and on Sioux leader Red Cloud's war with the U.S. Cavalry.



Knights at War is about the mounted warriors of the Middle Ages. It has games featuring jousting and siege war. There is also a conflict between a border lord's men and plundering raiders, and a chance to play out Richard Lionheart's crucial battle against Saladin.



Galactic War explores the future. Its games send space pirates in search of minerals in the asteroid belt, Earth forces hunting for alien invaders, and competing colonists to establish bases on a deadly planet. In the title game the Stellar Federation fights evil forces for control of the Galaxy.



World War II recounts the history of the war, and contains four games based on real combat situations. They include a clash between German and Russian patrols on the eastern front, the battle between Americans and Japanese for the Pacific, and a re-creation of the D-Day landings.

What they say about Battlegame books...

"All the games are *intelligent*—no trivial race-tracks or jejune grid-games... A bright series that deserves to succeed"

Games and Puzzles Magazine

"What can one say about such a book? It is first class. I only wish that someone had tried this kind of approach when I was learning history as a child..."

SAGSET Magazine on Knights at War

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Look-in Junior TV Times

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