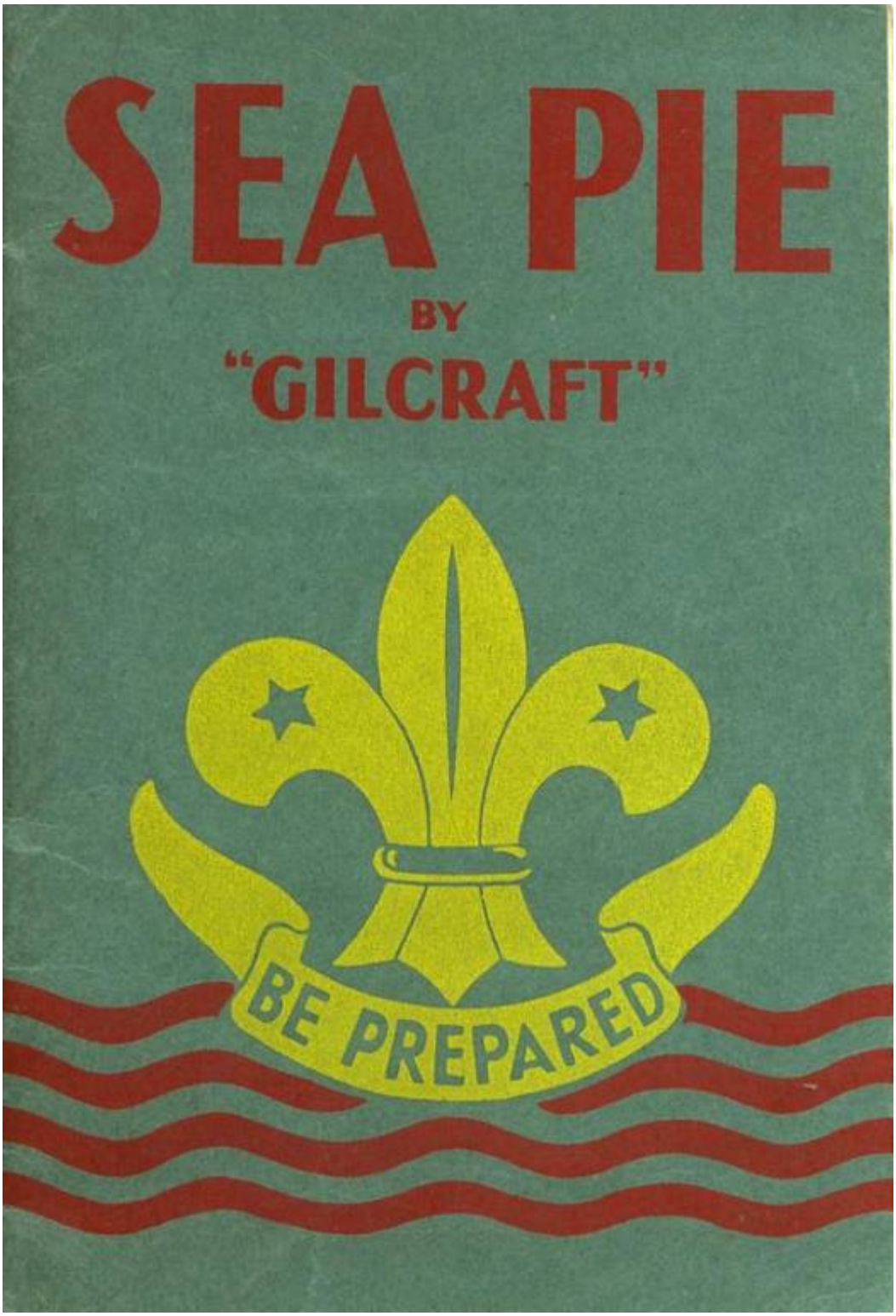
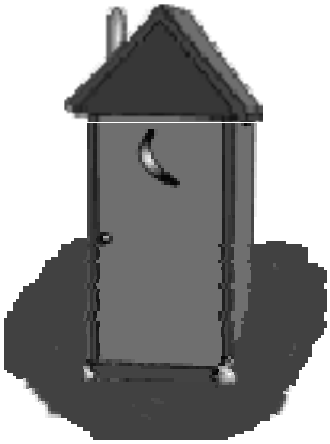

SEA PIE
BY
"GILCRAFT"
BE PREPARED



Editor's Note:

The reader is reminded that these texts have been written a long time ago. Consequently, they may use some terms or use expressions which were current at the time, regardless of what we may think of them at the beginning of the 21st century. For reasons of historical accuracy they have been preserved in their original form.

If you find them offensive, we ask you to please delete this file from your system.

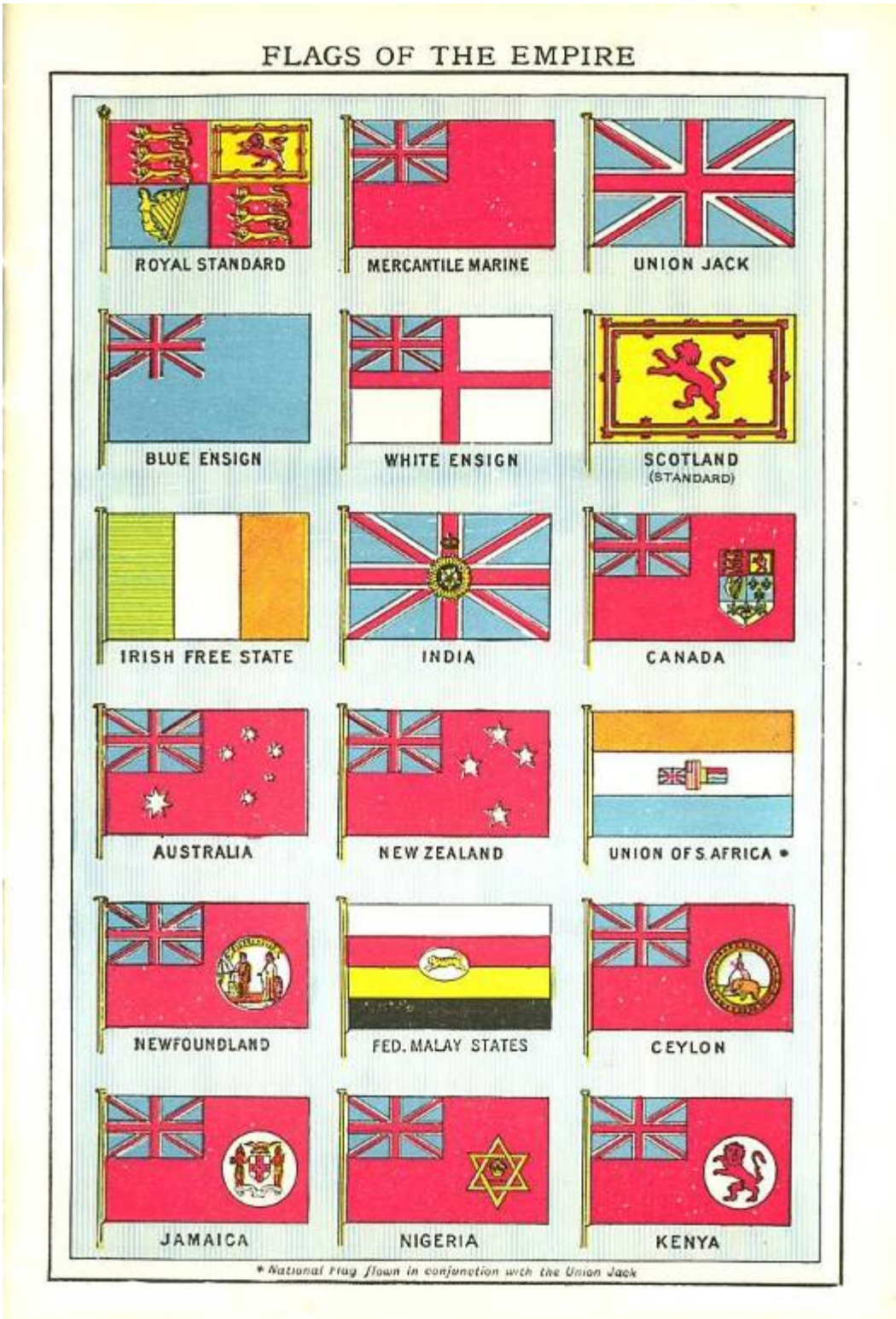
This and other traditional Scouting texts may be downloaded from the Dump.

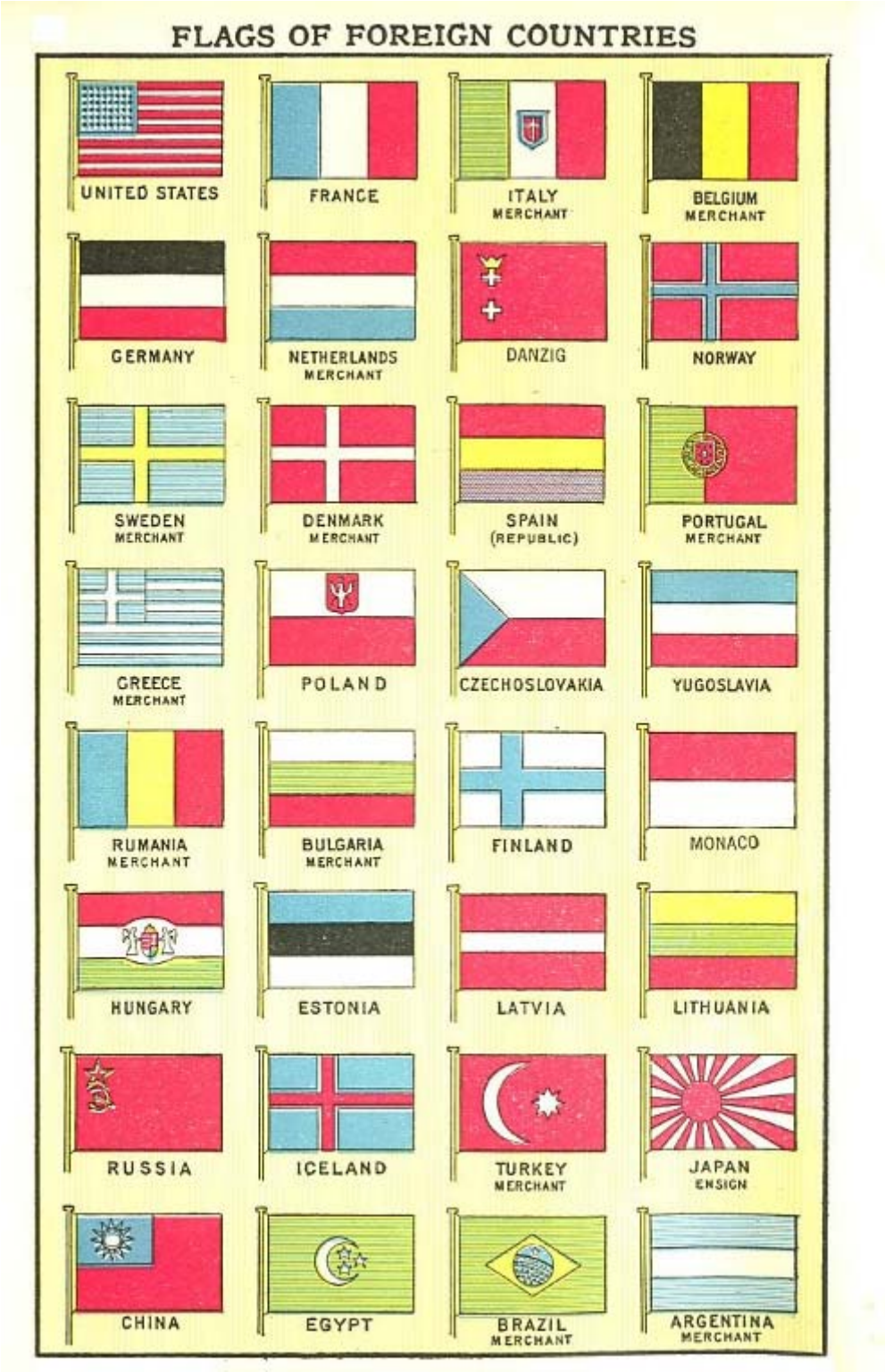
"The call of the sea is not sounded
in the ears of our boys as it used to be."
— SCOUTING FOR BOYS.

ERRATA

Page 7.	For "lode" read "lock."
Page 16.	Signal Code Flags — "B" should be fish-tailed. "E" should be square.
Page 23.	Finding the Depth of the Sea — For "23" read "20."

Originally
PRINTED IN GREAT BRITAIN BY BEORGE PHILIP AND SON, LTD., LONDON.
1934


FLAGS OF THE EMPIRE
ROYAL STANDARD
MERCANTILE MARINE
UNION JACK
BLUE ENSIGN
WHITE ENSIGN
SCOTLAND
(STANDARD)
IRISH FREE STATE
INDIA
CANADA
AUSTRALIA
NEW ZEALAND
UNION OF S. AFRICA *
NEWFOUNDLAND
FED. MALAY STATES
CEYLON
JAMAICA
NIGERIA
KENYA
* National Flag flown in conjunction with the Union Jack


FLAGS OF FOREIGN COUNTRIES
UNITED STATES
FRANCE
ITALY
MERCHANT
BELGIUM
MERCHANT
GERMANY
NETHERLANDS
MERCHANT
DANZIG
NORWAY
SWEDEN
MERCHANT
DENMARK
MERCHANT
SPAIN
(REPUBLIC)
PORTUGAL
MERCHANT
GREECE
MERCHANT
POLAND
CZECHOSLOVAKIA
YUGOSLAVIA
RUMANIA
MERCHANT
BULGARIA
MERCHANT
FINLAND
MONACO
HUNGARY
ESTONIA
LATVIA
LITHUANIA
RUSSIA
ICELAND
TURKEY
MERCHANT
JAPAN
ENSIGN
CHINA
EGYPT
BRAZIL
MERCHANT
ARGENTINA
MERCHANT

Flags — British and Foreign

THE origin of standards or flags can be traced back to the days of the earliest civilizations. Egypt had its standards consisting of sacred emblems; Indian armies carried large flags emblazoned with the dragon; Assyrian flags bore the dove, those of Persia an eagle or the sun. The cities of Greece each had a distinctive emblem such as the owl for Athens, the sphinx for Thebes, and so on. The flags shown on the preceding pages, however, are those of modern times, and the following notes regarding them may prove of interest.

The Royal Standard is really the King's personal flag and is correctly flown only above a building where he is in residence, a royal yacht or other ship when he is on board, or a camp or parade ground when he is present. The Red Ensign is the flag of the Mercantile Marine, the Blue Ensign that of the Royal Naval Reserve and certain yacht clubs, while the White Ensign is that of the Navy. The "Union Jack" is the National Flag of our country, and dates in its present form from the Act of Union with Ireland in 1801. The Scottish Standard is really the personal flag of the King of Scotland, and it figures as one of the quarters of the Royal Standard.

The Canadian flag is the ensign upon which a shield bearing the Dominion's arms appear, while in the case of Australia and New Zealand the constellation of the Southern Cross in slightly different forms has been added. The Union of South Africa actually has two — the Union Jack and the national flag shown in the illustration.

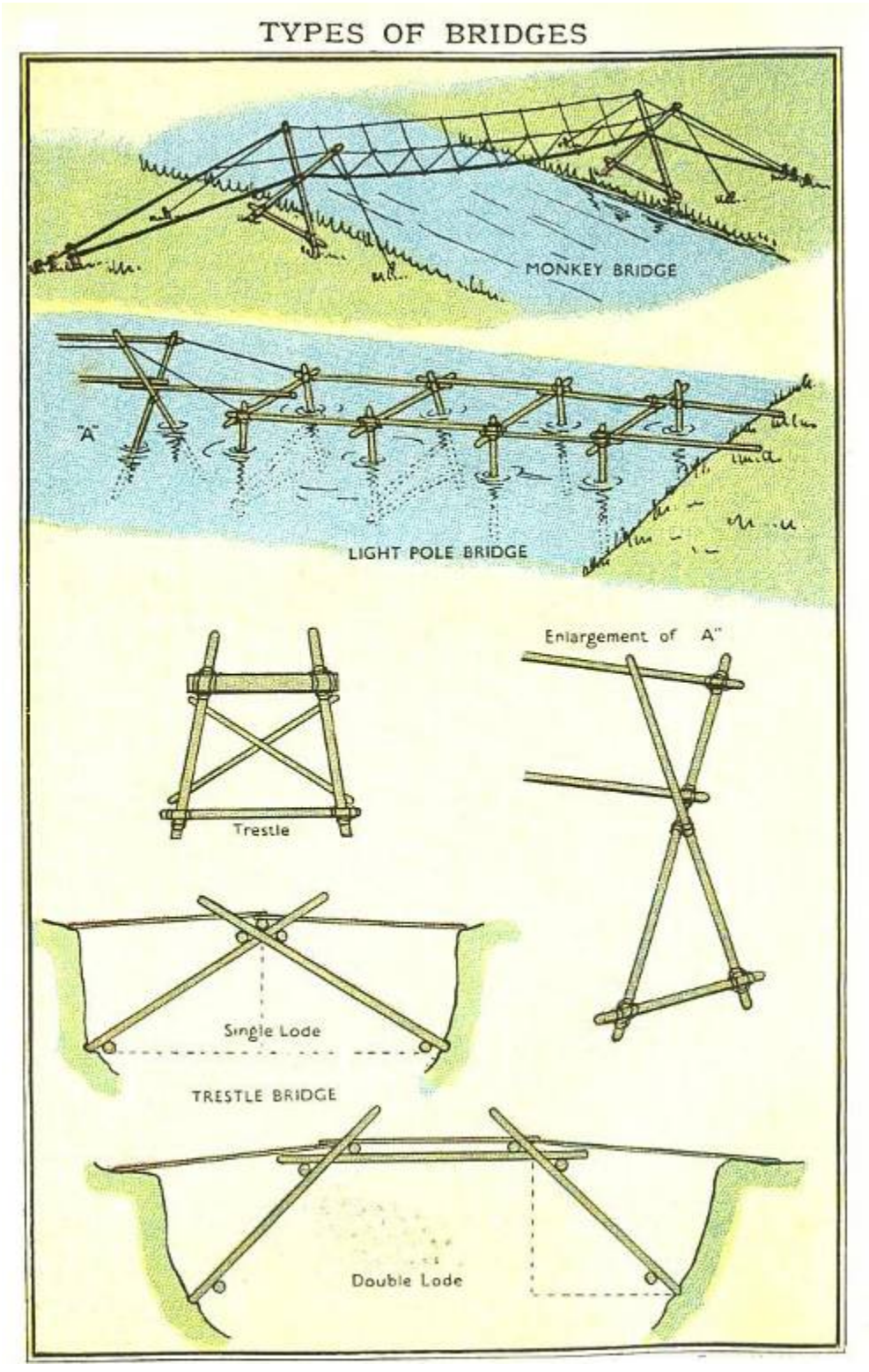
The Colonies and smaller Dependencies all have special badges of their own. These badges frequently record an incident in connection with the colony's history, or some animal or product associated with it.

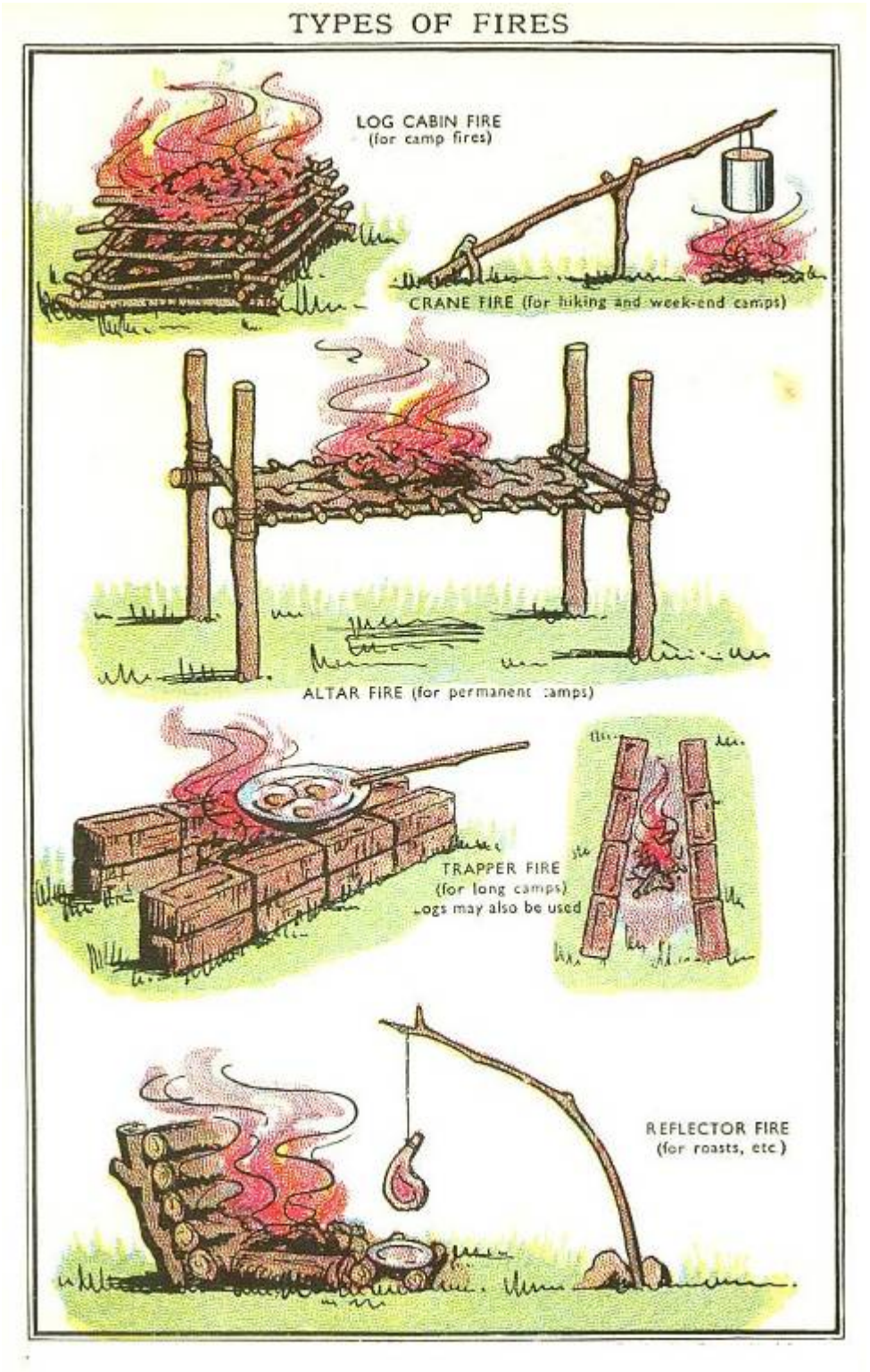
Regarding the Foreign Flags on page 5, it may be noted that the United States records by its "stripes" the original States of the Union, while the "stars" agree with the number of States there are to-day.

In passing, it will be noticed that Germany has reverted to the black, white and red of pre-war days after adopting for a time black, red and yellow, and that the flag of the Spanish Republic is the only one to introduce purple into its colour scheme.

House Flags and Funnels offer a convenient method of distinguishing vessels belonging to various shipping companies. The House Flag is flown at the mast-head, while the national flag is flown at the stern.

Signal Flags for pilots usually embody the design of the national flag (but not in all cases), and the designs upon the Code Signal Flags, used for passing messages from ship to ship have been selected for ease of identification. The letter "P" flag is known as the "Blue Peter," and is flown when a ship is about to sail.


TYPES OF BRIDGES
MONKEY BRIDGE
A
LIGHT POLE BRIDGE
Enlargement of A"
Trestle
Single Lode
TRESTLE BRIDGE
Double Lode


TYPES OF FIRES
LOG CABIN FIRE
(for camp fires)
CRANE FIRE (for hiking and week-end camps)
ALTAR FIRE (for permanent camps)
TRAPPER FIRE
(for long camps)
Logs may also be used
REFLECTOR FIRE
(for roasts, etc)

"No two people ever yet made a fire without quarrelling."—
Irish Proverb.

Oak logs will warm you well, if they're old and dry;
Larch logs of pine woods smell, but the sparks will fly.

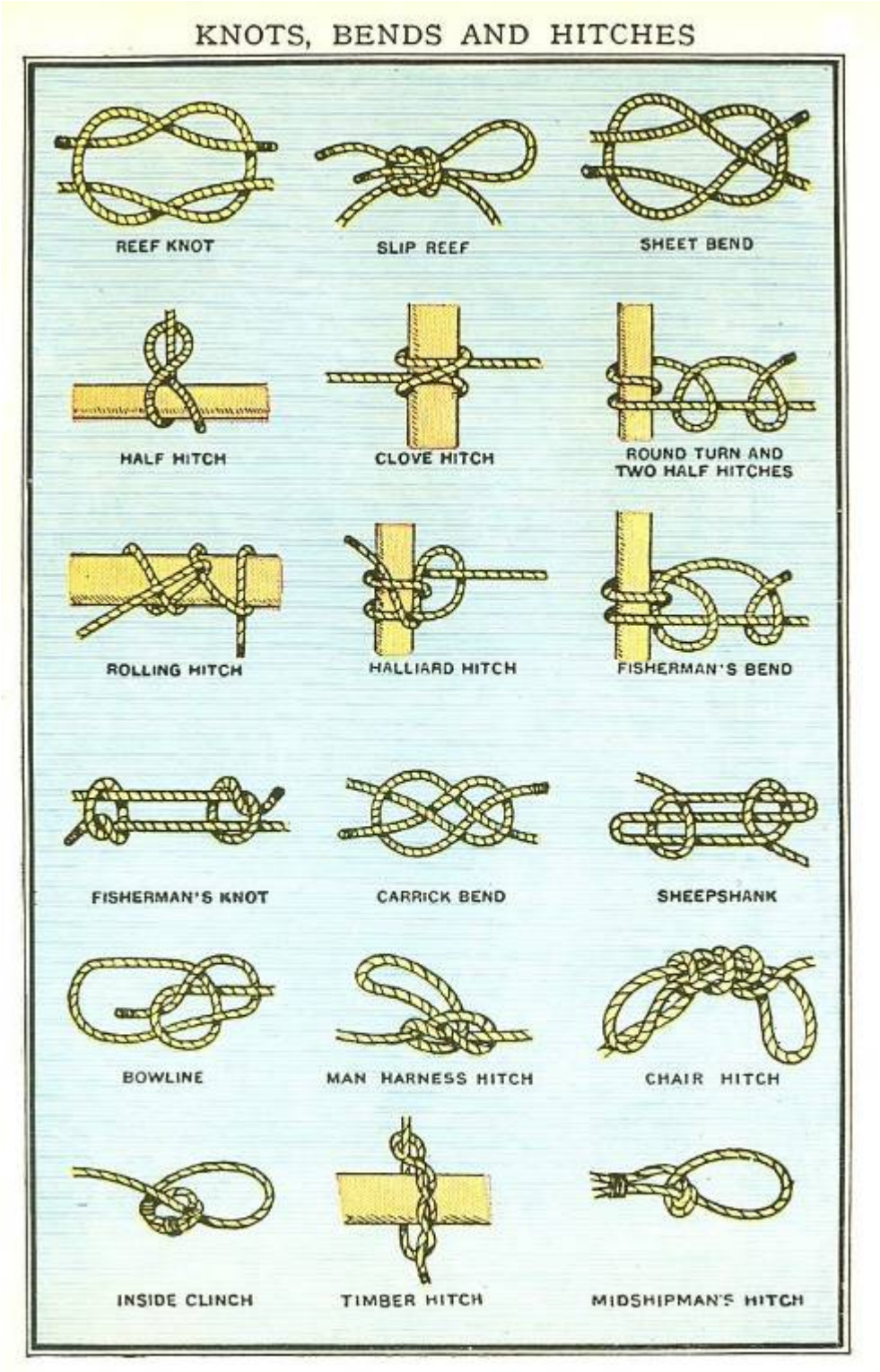
Beech logs for Christmas time, yew logs heat well;
"Scotch" logs it is a crime for anyone to sell.

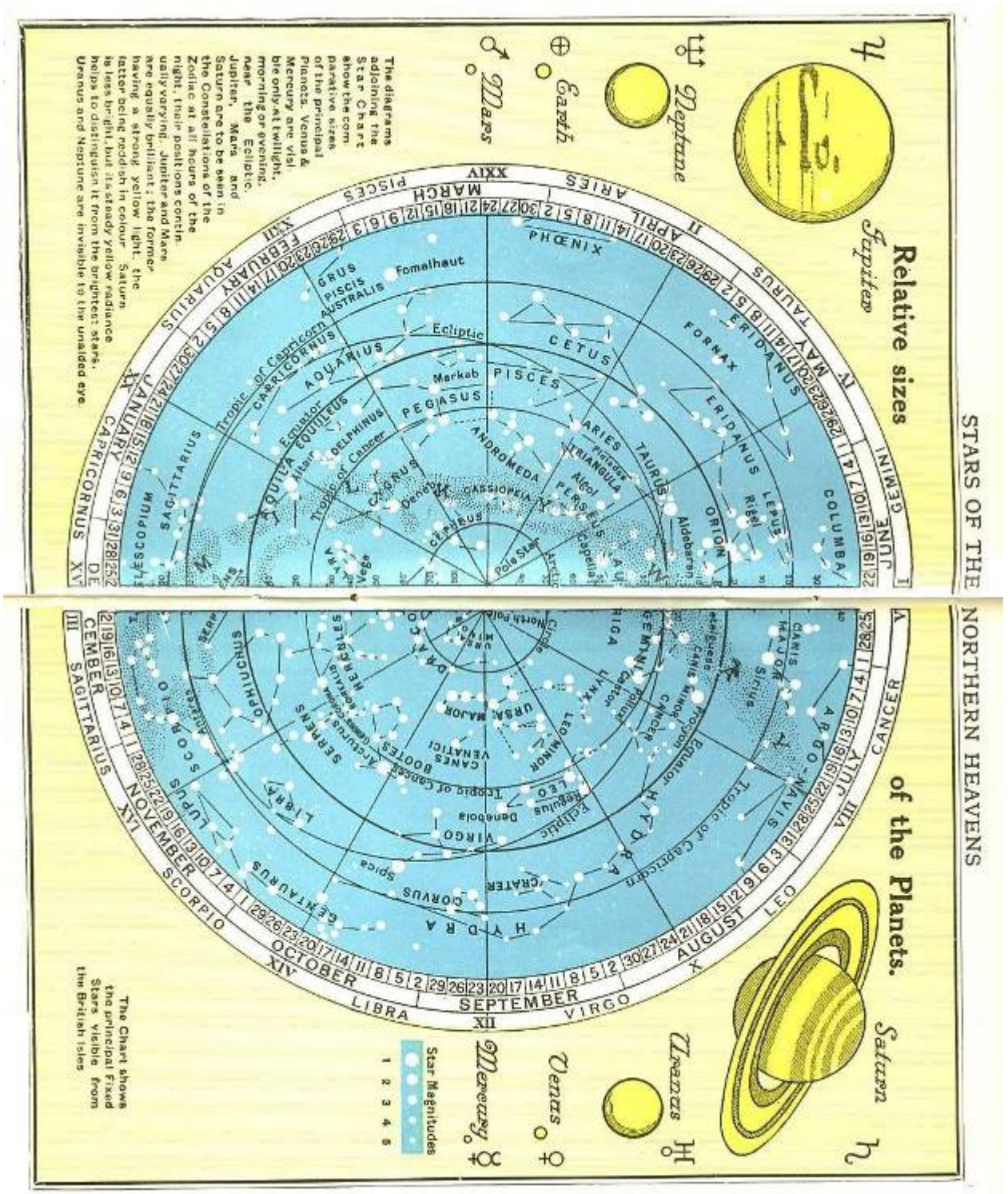
Birch logs will burn too fast, chestnut scarce at all;
Hawthorn logs are good to last if cut at the fall.

Holly logs will burn like wax, you should burn them green;
Elm logs like smouldering flax, no flame to be seen.

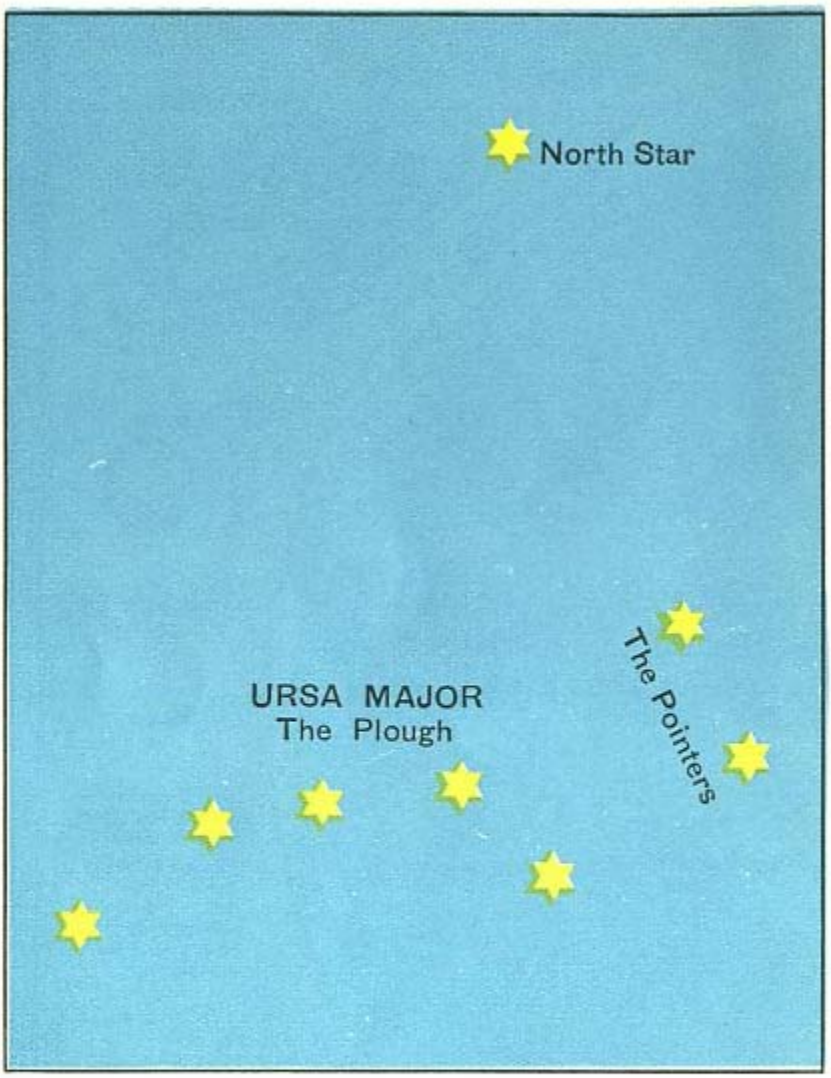
Pear logs and apple logs, they will scent your room;
Cherry logs across the dogs, smell like flowers in bloom.

But ash logs all smooth and grey, burn them green or old;
Buy up all that come your way, they're worth their weight in gold.


KNOTS, BENDS AND HITCHES
REEF KNOT
SLIP REEF
SHEET BEND
HALF HITCH
CLOVE HITCH
ROUND TURN AND TWO HALF HITCHES
ROLLING HITCH
HALLIARD HITCH
FISHERMAN'S BEND
FISHERMAN'S KNOT
CARRICK BEND
SHEEPSHANK
BOWLINE
MAN HARNESS HITCH
CHAIR HITCH
INSIDE CLINCH
TIMBER HITCH
MIDSHIPMAN'S HITCH

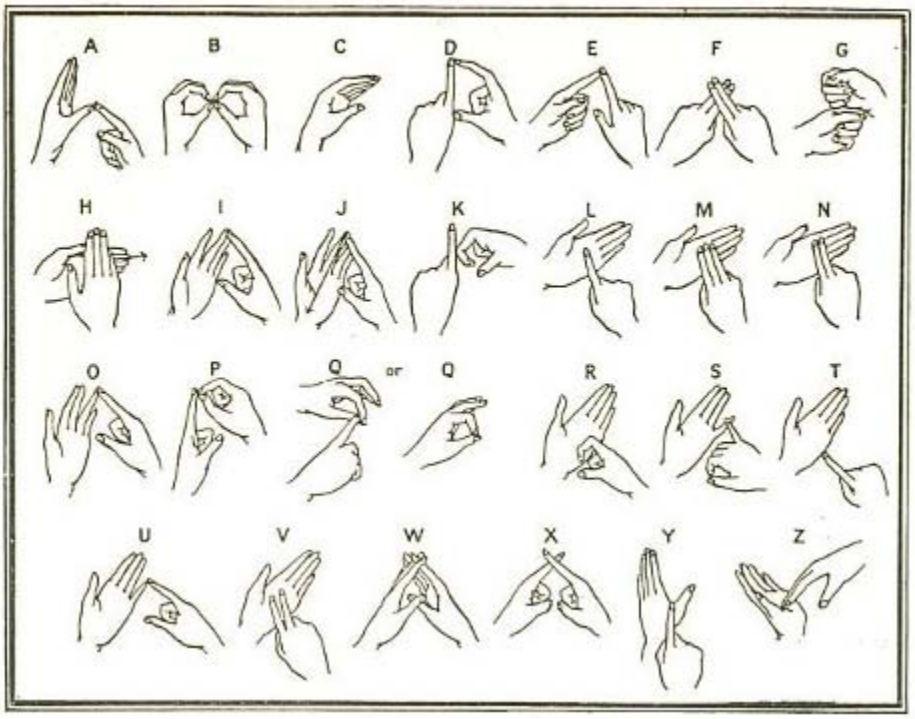

STARS OF THE NORTHERN HEAVENS
Relative sizes of the Planets.
Jupiter
Neptune
Earth
Mars
Saturn
Uranus
Venus
Mercury
The diagrams adjoining the Star Chart show the comparative sizes of the principal Planets. Venus & Mercury are visible only at twilight, morning or evening, near the Ecliptic. Jupiter, Mars and Saturn are to be seen in the Constellations of the Zodiac at all hours of the night. their positions continually varying. Jupiter and Mars are equally brilliant; the former having a strong yellow light, the latter being reddish in colour. Saturn is less bright, but its steady yellow radiance helps to distinguish it from the brightest stars. Uranus and Neptune are invisible to the unaided eye.
The Chart shows the principal Fixed Stars visible from the British Isles
Star Magnitudes
1 2 3 4 5
PHŒNIX
GRUS
PISCIS AUSTRALIS
Fomalhaut
Ecliptic
CETUS
FORNAX
ERIDANUS
PISCES
Markab
PEGASUS
ANDROMEDA
ARIES
TRIANGULA
Algol
PERSEUS
TAURUS
ORION
Aldebaran
LEPUS
Rigel
COLUMBA
CAPRICORNUS
AQUARIUS
AQUILA
DELPHINUS
CYGNUS
Deneb
CASSIOPEIA
CEPHEUS
Pole Star
Tropic of Capricorn
Equator
Tropic of Cancer
SAGITTARIUS
SCORPIO
OPHIUCHUS
SERPENS
HERCULES
URSA MAJOR
LEO MINOR
CANES VENATICI
BOOTES
Arcturus
Denebola
LEO
VIRGO
Spica
CRATER
CORVUS
HYDRA
LIBRA
LUPUS
GEMINI
RIGA
Castor
Pollux
CANCER
CANIS MINOR
Procyon
CANIS MAJOR
Sirius
ARGO-NAVIS
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER

HOW TO FIND THE NORTH STAR



Ursa Major (the Great Bear), also known as "The Plough," "Charles's Wain" and the "Dipper," is one of the most conspicuous of the constellations in the Northern Hemisphere. It revolves around the North Star which can be identified as the bright star in line with the two "Pointers," and distant from them about three times their own distance one from the other.

THE DEAF AND DUMB ALPHABET



THE BRAILLE SYSTEM

All the Braille signs consist of one or more dots in the form ⠿

The Braille signs of the first ten letters are compiled from the four upper dots.

A	B	C	D	E	F	G	H	I	J
⠁	⠃	⠉	⠙	⠑	⠋	⠛	⠓	⠊	⠚

The Braille signs of the second line are the same as those of the first line with the addition of the bottom left-hand dot.

K	L	M	N	O	P	Q	R	S	T
⠅	⠇	⠍	⠝	⠕	⠏	⠟	⠗	⠎	⠞

The rest of the alphabet with the exception of W ⠺ and the addition of some common words, comes in the third line. This is the same as the first line, but with the bottom two dots added.

U	V	X	Y	Z	and	for	of	the	with
⠥	⠧	⠭	⠽	⠵	⠯	⠿	⠷	⠮	⠾

MORSE SIGNALLING

THIS system of signalling at first sight appears more difficult; it is, however, used much more frequently than Semaphore—for instance in army signalling, etc., apart from scout use. So it is worth the greater effort to learn it.

The alphabet is made up of dots and dashes; the dot being equal to one unit of time, and the dash three times the length of the dot. Between each letter there is a pause equal to one dash, and between words or groups of letters a pause equal to two dashes.

MORSE ALPHABET

A	·—	N	—·	1	·————
B	—···	O	———	2	··———
C	—·—·	P	·——·	3	···——
D	—··	Q	——·—	4	····—
E	·	R	·—·	5	·····
F	··—·	S	···	6	—····
G	——·	T	—	7	——···
H	····	U	··—	8	———··
I	··	V	···—	9	————·
J	·———	W	·——	0	—————
K	—·—	X	—··—		
L	·—··	Y	—·——		
M	——	Z	——··		

LONG NUMERALS

MISCELLANEOUS SIGNS

VE ···—·	Commencing Sign	*MR —— ·—·	Move to Your Right
*AR ·—·—·	End of Message	*ML —— ·—··	Move to Your Left
* ii ·· ··	Break Sign Separative	*MH —— ····	Move Higher Up
*AA ·— ·—	Who are You?	*MO —— ———	Move Lower Down
*GR ——· ·—·	Number of Groups so and so	GB —— —···	Close Down
		KK —·——·—	Brackets ( )
*WA ·—— ·—	Word After	RR ·—··—·	Inverted Commas
*WB ·—— —···	Word Before	UK ··——·—	Block Sign
K —·—	Carry on	DU —····—	Hyphen
Q ——·—	Wait	EX ·—··—	Horizontal
C —·—·	Correct	XE —··—·	Oblique Stroke
R ·—·	Message received	FI ··—···	Decimal Point
VA ···—·—	No Message	*MI —— ——	Separating Nos. from Fractions
·····—···	Erase (8 dots) (refers only to last group sent)	AAA ·—·—·—	Full Stop
V ···—	From	*SOS ··· ——— ···	Danger Call

With the exception of those marked * each of above is sent as one continuous sign.
Note.—All signs and procedure signals are sent a little sharper than normal signals.

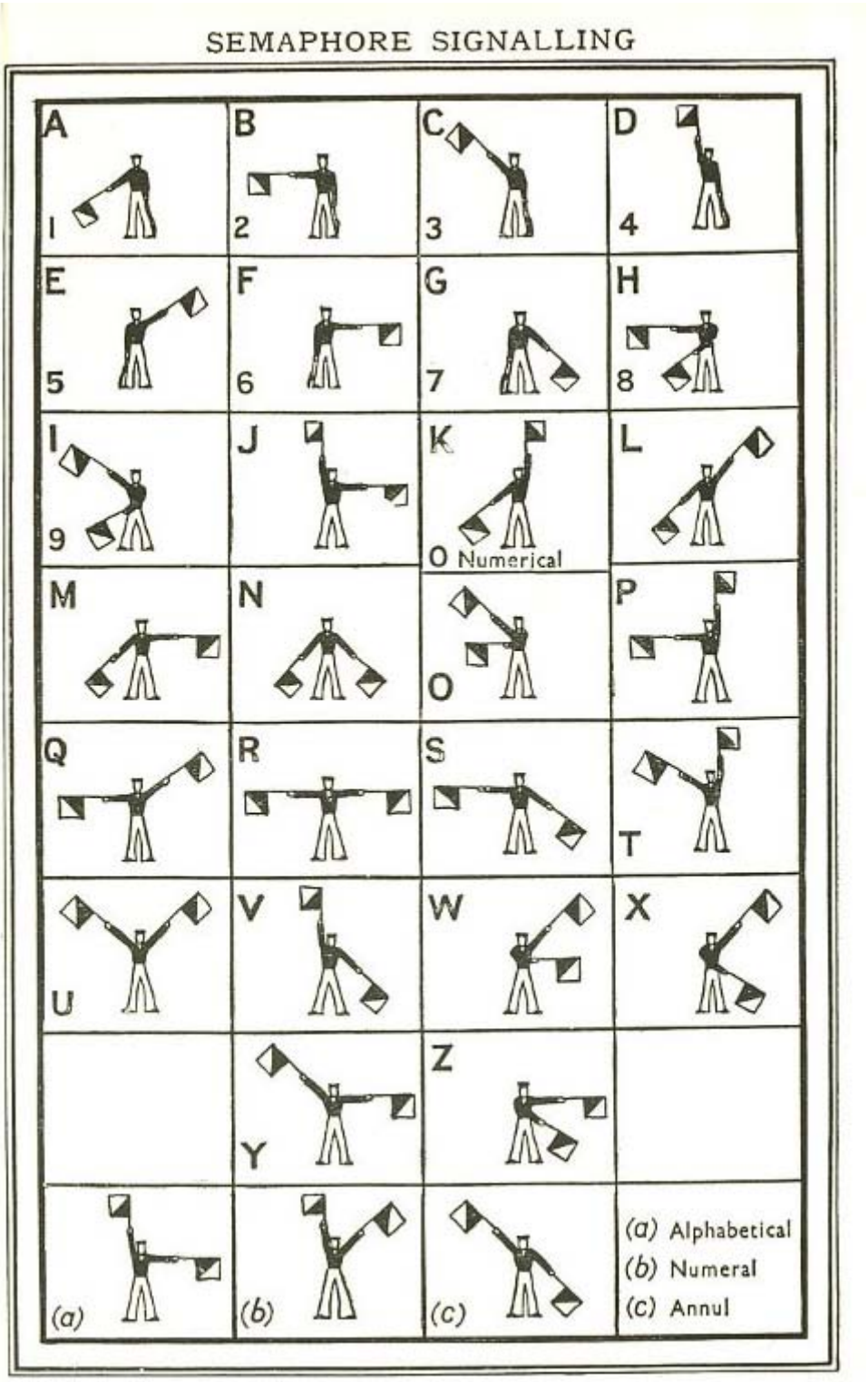
In Morse the numerals are checked back by means of the letters A to K. 1913 is checked by AIAC.

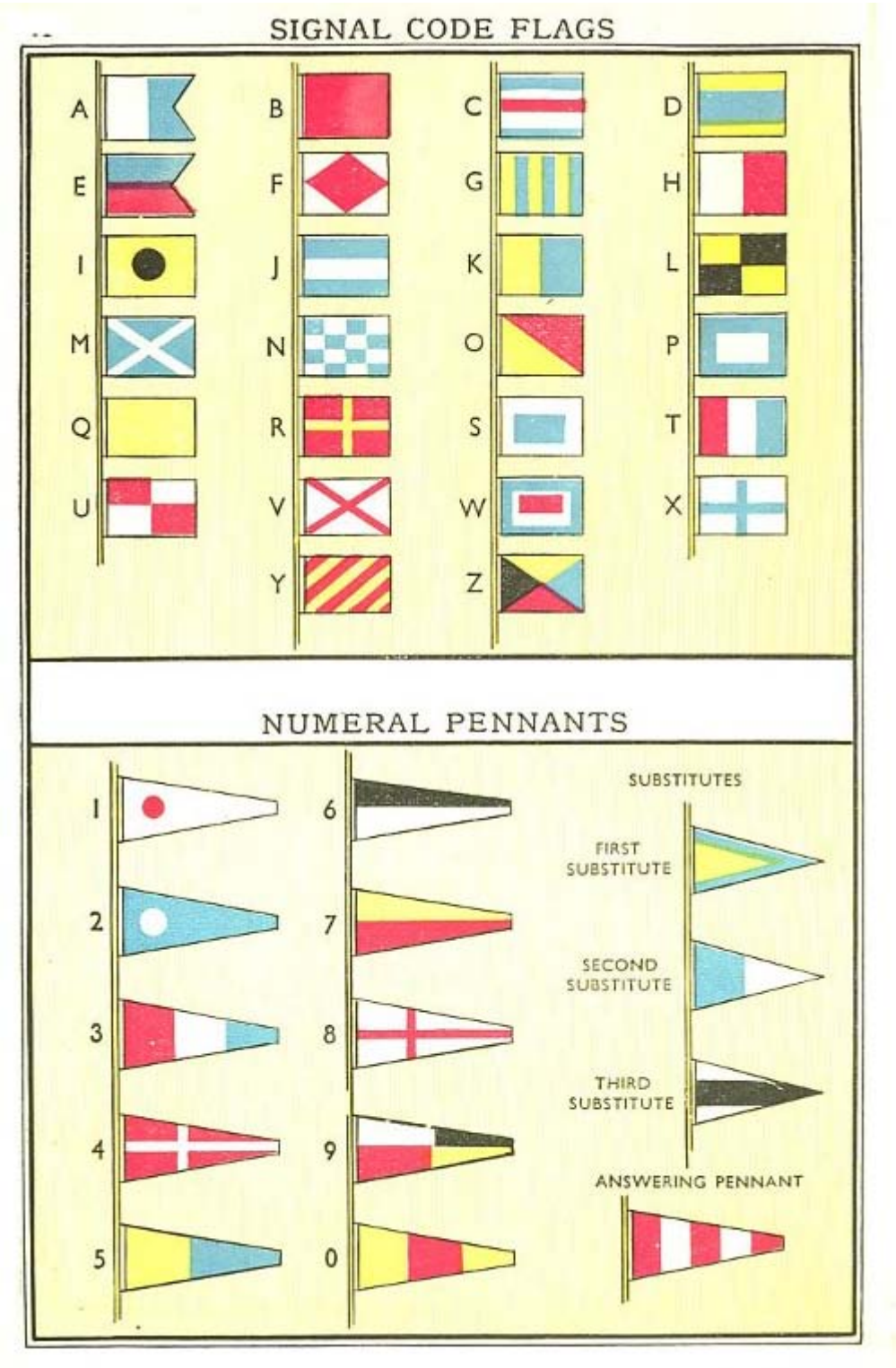
In both signalling systems letters sounding alike have been given names, to distinguish them.

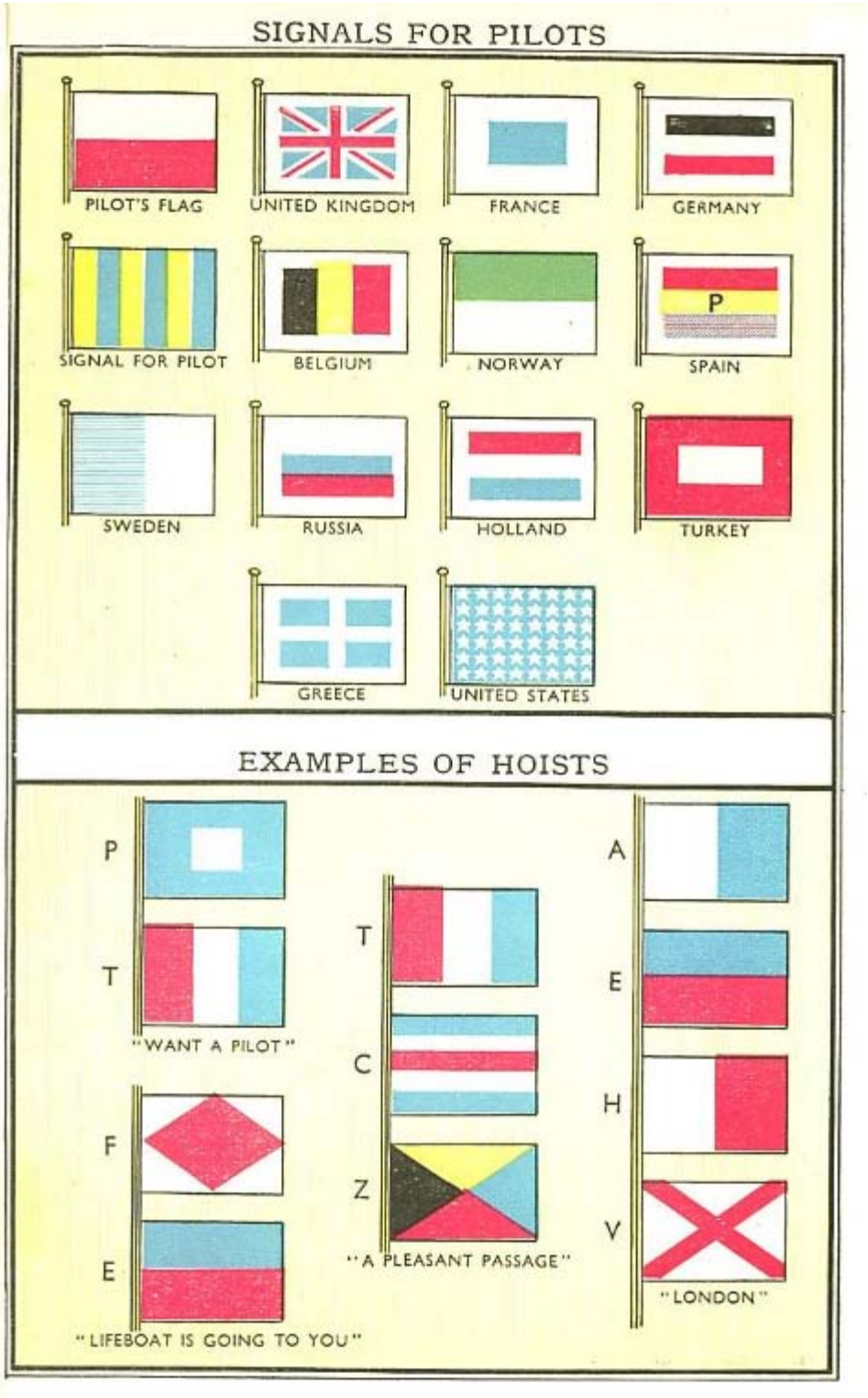
A.	Ack	**H.**	Harry	**Q.**	Queen
B.	Beer	**I**	Ink	**S.**	Sugar
C.	Charlie	**J.**	Johnny	**T.**	Tock
D.	Don	**M.**	Monkey	**V.**	Vick
E.	Eddie	**P.**	Pip		

The following sentence includes all the letters of the alphabet :—

"The quick brown fox jumps over a lazy dog."

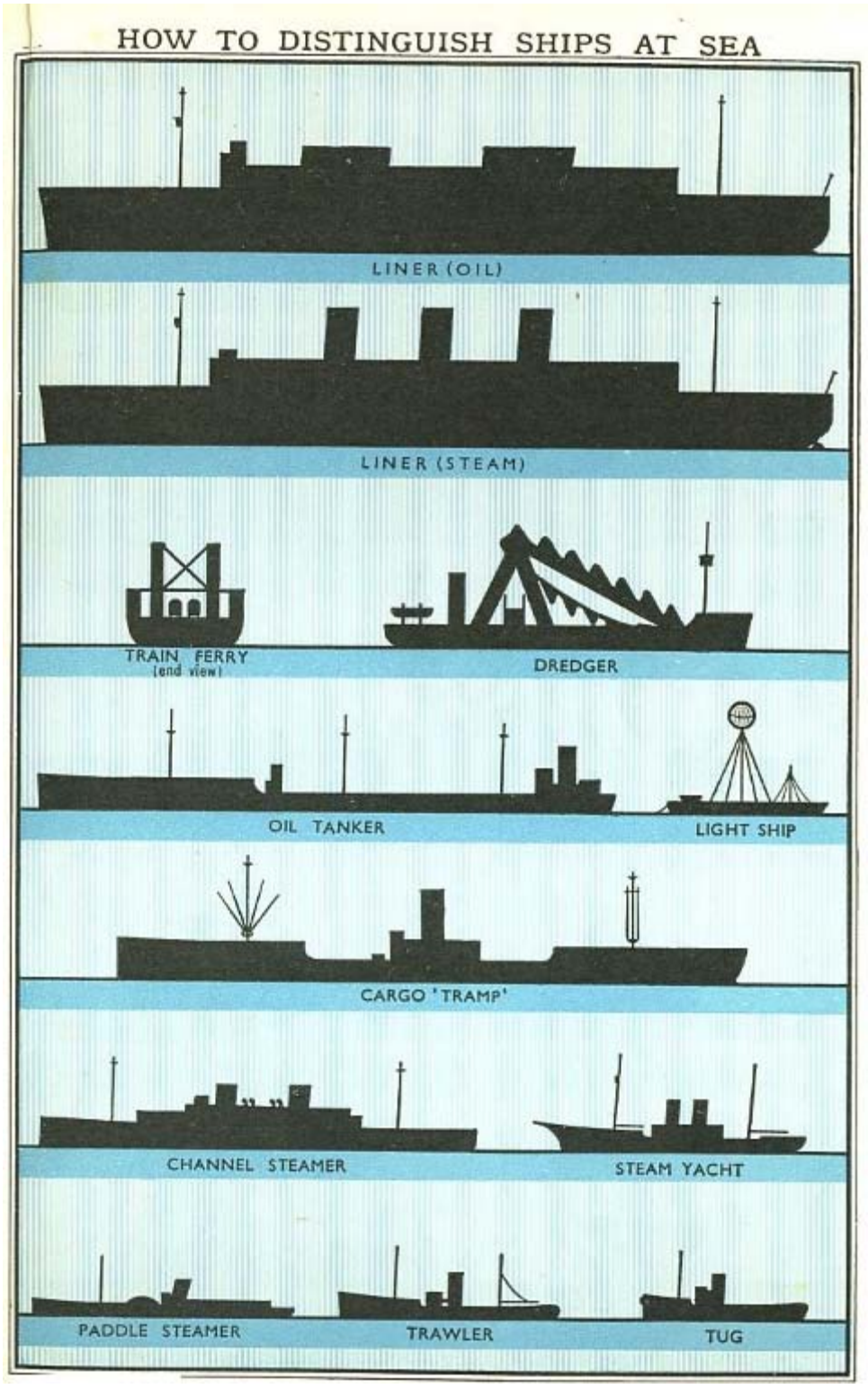

SEMAPHORE SIGNALLING
A
1
B
2
C
3
D
4
E
5
F
6
G
7
H
8
I
9
J
K
O Numerical
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
(a)
(b)
(c)
(a) Alphabetical
(b) Numeral
(c) Annul

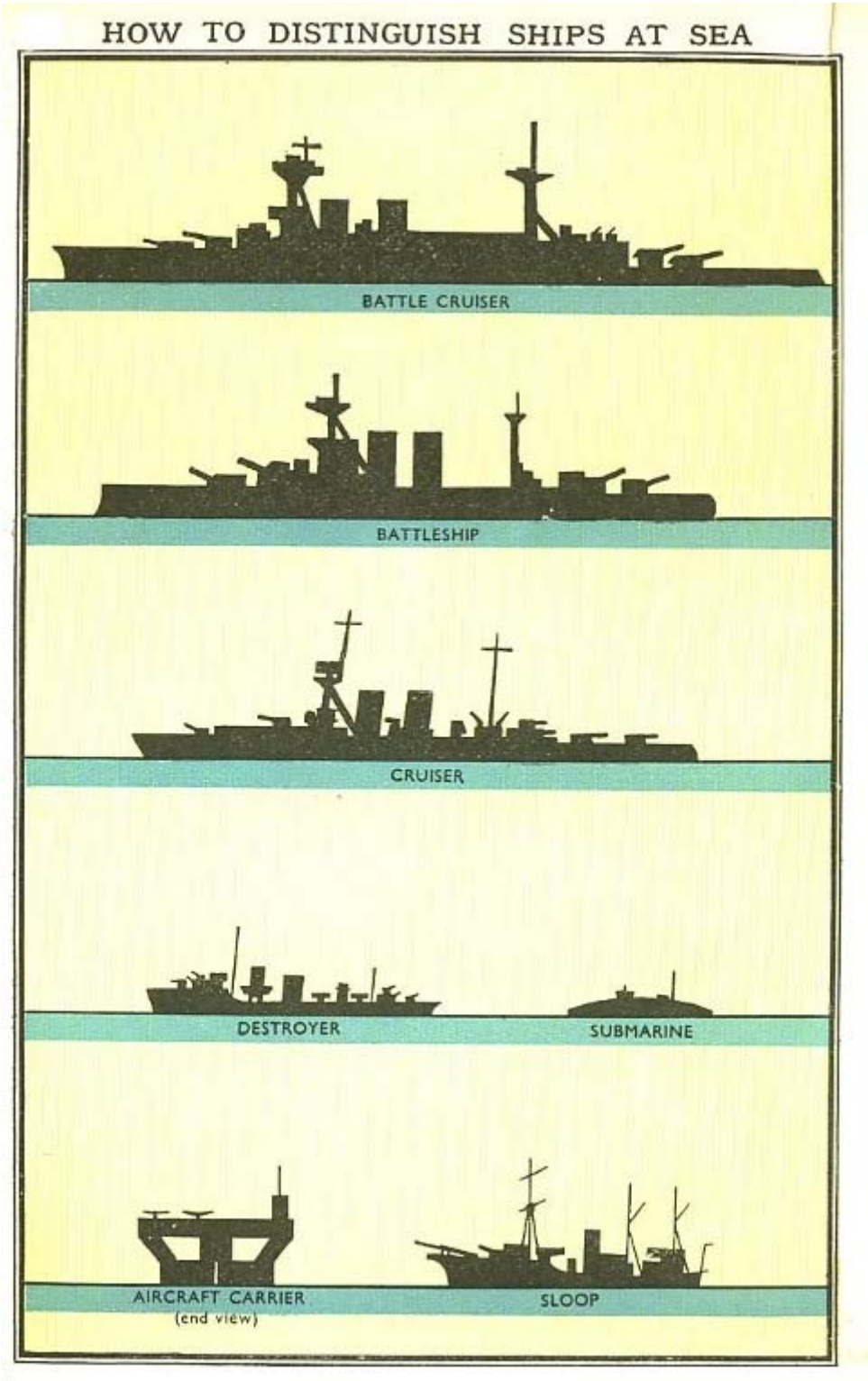

SIGNAL CODE FLAGS
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
NUMERAL PENNANTS
1
2
3
4
5
6
7
8
9
0
SUBSTITUTES
FIRST SUBSTITUTE
SECOND SUBSTITUTE
THIRD SUBSTITUTE
ANSWERING PENNANT

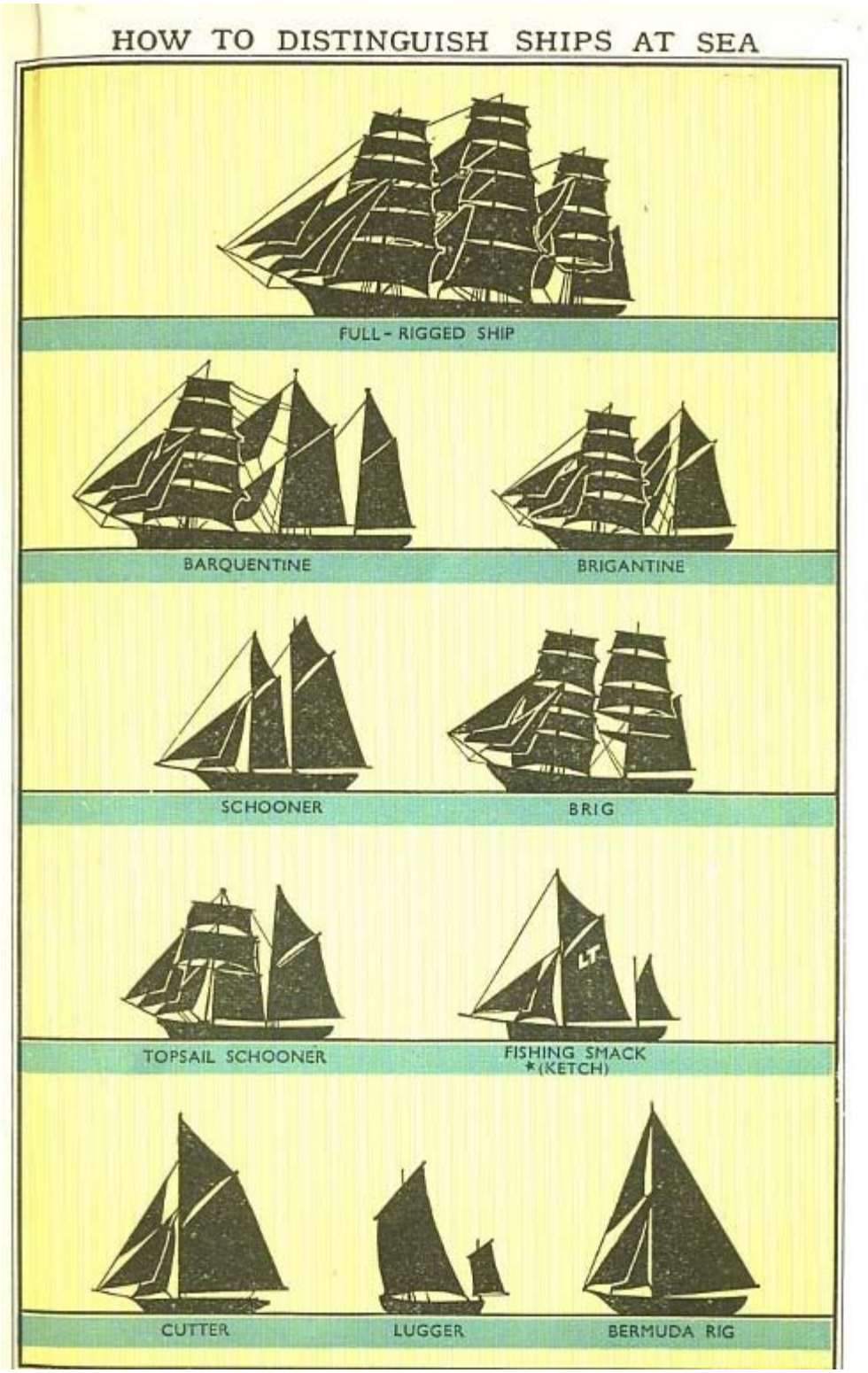

SIGNALS FOR PILOTS
PILOT'S FLAG
UNITED KINGDOM
FRANCE
GERMANY
SIGNAL FOR PILOT
BELGIUM
NORWAY
P
SPAIN
SWEDEN
RUSSIA
HOLLAND
TURKEY
GREECE
UNITED STATES
EXAMPLES OF HOISTS
P
T
"WANT A PILOT"
F
E
"LIFEBOAT IS GOING TO YOU"
T
C
Z
"A PLEASANT PASSAGE"
A
E
H
V
"LONDON"

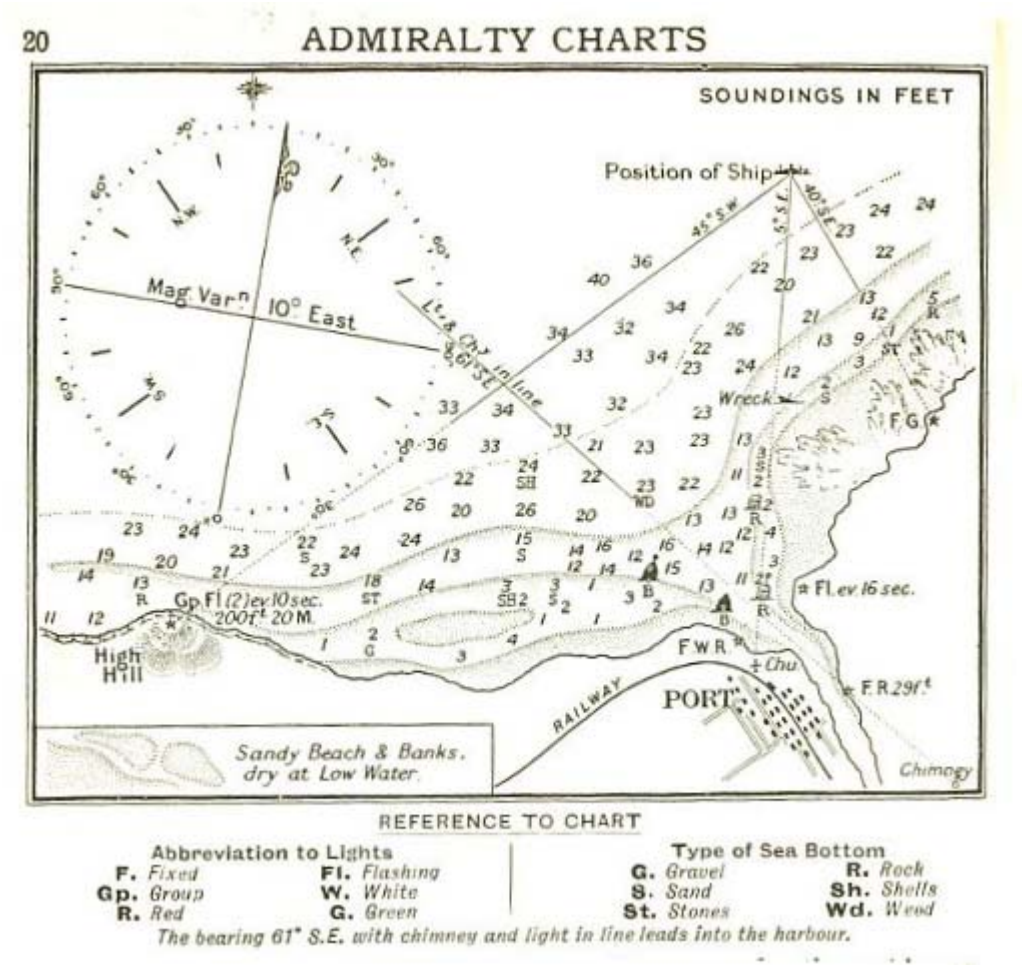
A Glossary of Nautical Terms, etc.

'A.B.'— Able (bodied) seaman, or fully qualified sailor.
Aft— towards the stern of a ship.
Astern— behind a ship.
Beam— the greatest width of a ship.
Binnacle— the container for the compass.
Bows— the foremost part of a ship.
Bridge— the deck athwart the ship, from which it is navigated.
Bulwarks— the ship's sides above deck level.
Cable— a strong rope or chain.
Companion-way— the staircase leading below decks.
Davits— curved iron posts from which ship's boats are hung and lowered.
Derrick— a crane, usually fixed to the mast for handling cargo.
Donkey-engine— a small deck-engine used for working the windlass, etc.
Draught— depth of a ship under water.
Fender— anything used to protect a vessel coming alongside a wharf, etc.
Forecastle ('Fo'c'sle')— the crew's quarters in the ships bows.
Free-board— the space between the water-line of a vessel and the deck or decks.
Gang-plank (Gangway)— used for embarking and disembarking passengers.
Gunwale ('Gunnel')— the upper edge of a ship's or boat's side.
Halyards— ropes for hoisting sails, flags, etc.
Hatchway— opening in a ship's deck for handling cargo.
Hawse-pipes— opening through which the anchor cable passes.
Hawser— a rope.
Heave-to— to stop a ship head to wind.
Hold— where cargo or passengers' luggage is stored.
Hull— the body of a ship.
Keel— the lengthways base of a ship upon which the whole structure is built up.
'Knot'— a combination of distance and time measurements. Thus, a speed of 20 knots means a speed of 20 nautical miles (2027 yards) per hour.
Lead— a plummet thrown overboard attached to a line to ascertain the depth.
Lee, Leeward— the sheltered side of a ship, away from the wind.
Life-belt— a belt of buoyant material to be strapped round a person to sustain him in the water (not to be confused with a life-buoy).
Life-buoy— a float for sustaining a person in the water.
Master— the Captain of a ship.
Mate— Chief Ship's Officer (also second, third, etc.).
'O.S.'— Ordinary seaman.
Painter— a rope used for securing a boat.
Patent Log— an instrument towed astern for ascertaining the rate at which a ship travels.
Plimsoll's Mark (or Load Line)— the device of a white circle and lines on a ship's side, showing the depth to which it may be loaded.
Port— the left-hand side of a ship, looking forward.
Porthole— the window (usually circular) of a cabin, etc.
Rudder— the moveable extension to the stern-post for steering the ship.
Scupper— an opening to allow water to run off the deck.
Soldier's Wind— blowing from behind a ship.
'Stand by'— "be ready".
Starboard— the right-hand side of a ship, looking forward.
Stem— the upright "cut-water" at the bows.
Stern— the hind part of a ship.
Thwarts— the cross-seats in a boat.
Tonnage— the measurement of a ship by its capacity for carrying cargo, passengers, etc.; or its weight (displacement).
Wake— the track left behind by a ship in motion.
Winch, Windlass— machines used for hoisting or hauling.
Windward— the side nearest to the wind, or "weather side."


HOW TO DISTINGUISH SHIPS AT SEA
LINER (OIL)
LINER (STEAM)
TRAIN FERRY
(end view)
DREDGER
OIL TANKER
LIGHT SHIP
CARGO 'TRAMP'
CHANNEL STEAMER
STEAM YACHT
PADDLE STEAMER
TRAWLER
TUG


HOW TO DISTINGUISH SHIPS AT SEA
BATTLE CRUISER
BATTLESHIP
CRUISER
DESTROYER
SUBMARINE
AIRCRAFT CARRIER
(end view)
SLOOP

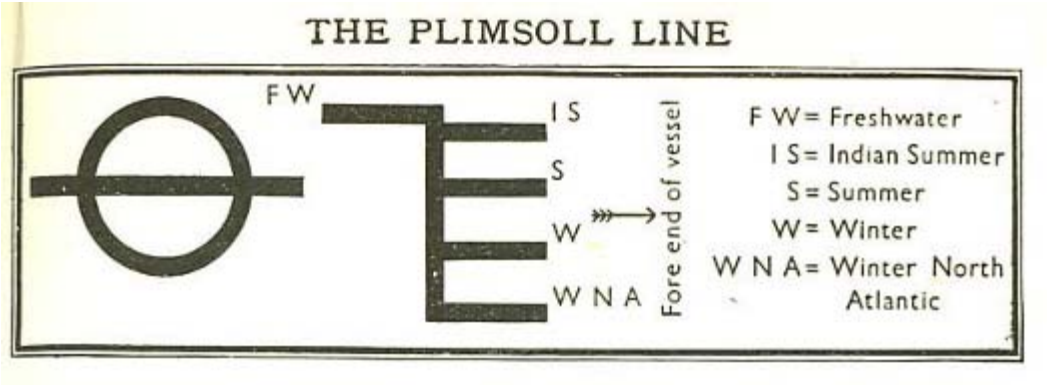

HOW TO DISTINGUISH SHIPS AT SEA
FULL-RIGGED SHIP
BARQUENTINE
BRIGANTINE
SCHOONER
BRIG
TOPSAIL SCHOONER
FISHING SMACK
*(KETCH)
CUTTER
LUGGER
BERMUDA RIG



ADMIRALTY Charts are hydrographic maps the guidance of navigators. The main features are lights and buoys with their descriptions, soundings, the depths of water in fathoms or feet registered by the lead-line at low water, and the Magnetic North compass. Charts also show the nature of the unseen bottom of the sea, and its character in the shape of hidden rocks or sandbanks.

With the aid of a chart and mariners' compass a ship is directed from one position to another. If a navigator wishes to find his ship's position when in sight of land he selects three or more conspicuous objects ashore — for example, a hill, church spire and lighthouse, so that the compass-bearing lines cut each other at a wide angle. The compass bearing is then drawn through each object and the point where these lines join shows the ship's position (see diagram).

When out of sight of land the exact position of a vessel is obtained by the sun, moon and stars. The altitudes of the heavenly bodies are found with the aid of a sextant, and Greenwich mean-time is noted at the time of observation. From these figures the exact latitude and longitude is calculated.



The Board of Trade requires every British mercantile ship to carry a mark, known as the Plimsoll mark or Plimsoll line, painted or marked on both sides of the outside of the hull. This mark, which is designed to prevent overloading, shows to what depth the ship may be loaded in fresh water and in salt water in different oceans during different seasons; for example, Indian summer is the line to which a ship can be loaded in the Indian Ocean during the summer months. The mark consists of a circular disc of 12 inches diameter, through which passes a horizontal line 18 inches long, indicating the load line assigned by Lloyds' register; the level of this always indicates the summer load line in salt water.

FINDING THE DEPTH OF THE SEA

In spite of recent electrical inventions which simplify depth soundings for big liners and battleships, the old method of sounding by log and line is still used in most ships to-day.

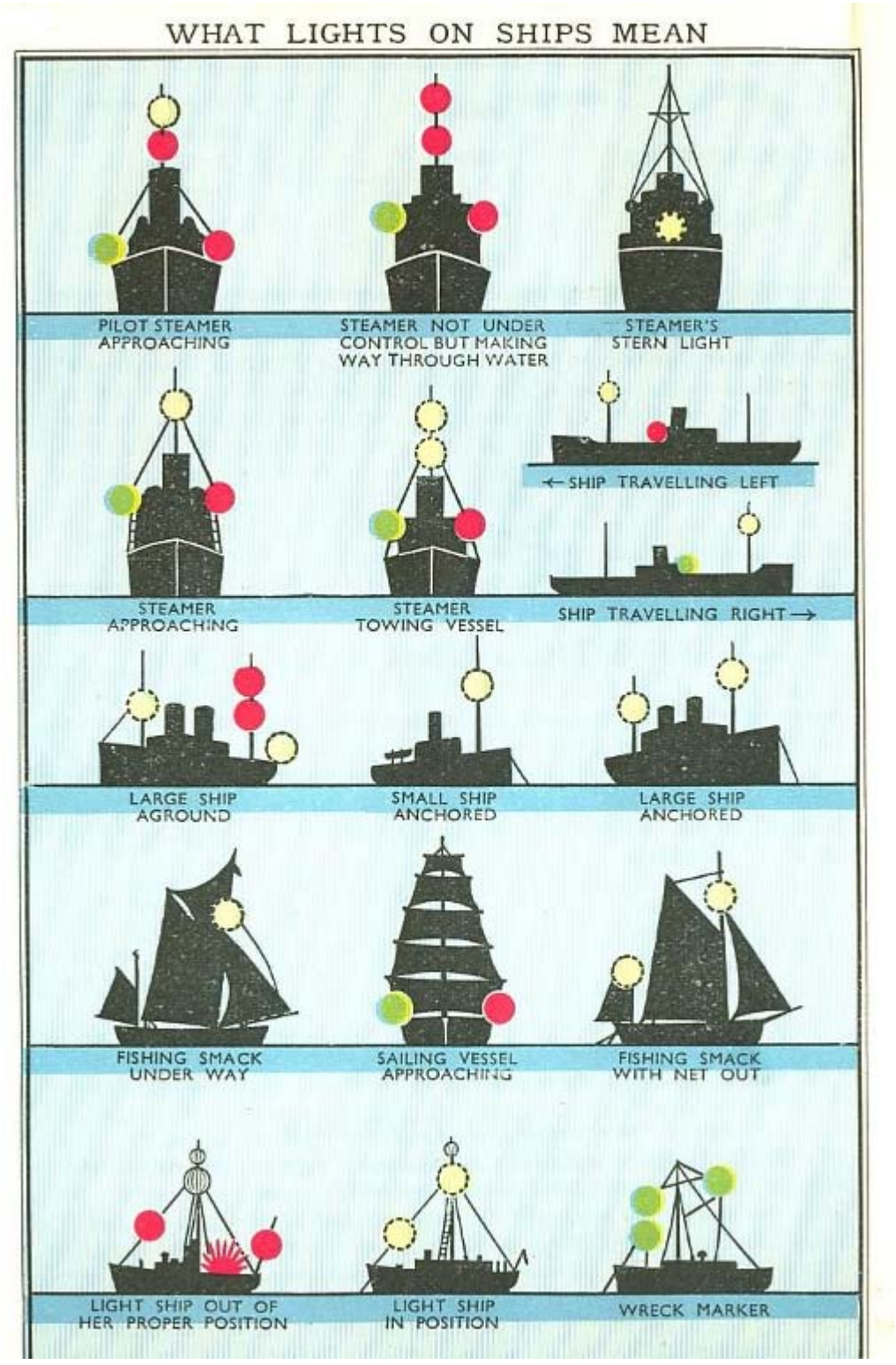
The lead is 7 lbs., 14 lbs., or 28 lbs., according to the depth to be reached, and the line is marked at certain intervals; the markings being different so that they can be distinguished by sight, and also by feel in the dark.

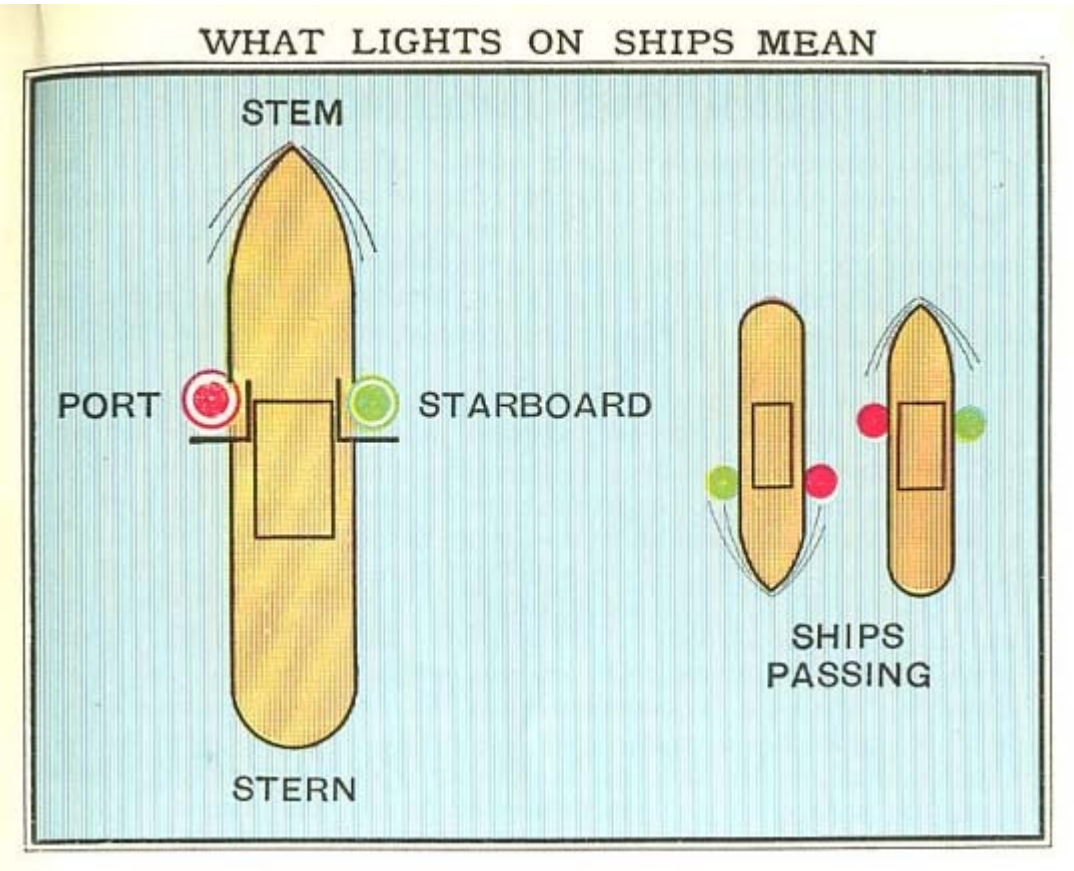
At	2	fathoms it is marked with a piece of			leather with two ends.
”	3	”	”	”	leather with three ends.
”	5	”	”	”	white calico.
”	7	”	”	”	red bunting.
”	10	”	”	”	leather with a hole in it.
”	13	”	”	”	blue serge.
”	15	”	”	”	white calico.
”	17	”	”	”	red bunting.
”	23	”	”	”	strand with two knots in it.

A fathom is six feet.

TO TAKE SOUNDINGS

The leadsman stands on the windward side of the vessel and swings the lead round his head so that it falls ahead of the ship, to give the lead time to reach the bottom before the line becomes perpendicular. Then in the old custom of the sea he sings out the depth by “marks” — the fathoms marked as above, or by “deeps” — the unmarked fathoms. If the depth is seen to be 10 fathoms he sings out “by the mark of ten”; if 9 fathoms, he sings “by the deep nine”; 4½ fathoms would be “by the deep four and a quarter four,” and so on.


WHAT LIGHTS ON SHIPS MEAN
PILOT STEAMER APPROACHING
STEAMER NOT UNDER CONTROL BUT MAKING WAY THROUGH WATER
STEAMER'S STERN LIGHT
← SHIP TRAVELLING LEFT
STEAMER APPROACHING
STEAMER TOWING VESSEL
SHIP TRAVELLING RIGHT →
LARGE SHIP AGROUND
SMALL SHIP ANCHORED
LARGE SHIP ANCHORED
FISHING SMACK UNDER WAY
SAILING VESSEL APPROACHING
FISHING SMACK WITH NET OUT
LIGHT SHIP OUT OF HER PROPER POSITION
LIGHT SHIP IN POSITION
WRECK MARKER



ALL ships at sea carry lights, and these convey a message according to their colour and arrangement. In the first place a steamship must carry a white light upon the foremast, and if over a certain length a second one upon the mizzen (rear) mast. Additionally, when "under way," she must show two coloured side lights at about amidships — a red one on the "port" or left side, looking forward (remember port wine is red!), and a green one on the right or "starboard" side. These lights should be visible from the front, and one from each side of the vessel, but *not* from the rear, and the most important "rule of the road" at seas runs as follows:—

"*Green to green, red to red,*
Perfect safety, go ahead."

This means that when two ships meet and pass one another, the same coloured lights should show on each vessel.

When two ships are *directly* meeting each other, that is when both red and green lights are visible on each, the rule is for both vessels to steer to starboard (*right*), so that their red lights only can be seen by one another, and so they pass in safety — just the opposite to the "rule of the road" on land, where one drives to the *left.*

As the illustrations show, additional lights indicate either the nature of the vessel, or the fact that it is anchored, engaged in fishing, and so on.

Tides, and Time at Sea

ONE of the most striking of seaside phenomena is that of the tides, changing as they do what is a tennis-court, riding school or cricket pitch during one part of the day into a swimming pool and fishing ground a few hours later.

The variations in the rise and fall in the tides differ greatly around our coasts, generally speaking being greatest in estuaries such as the Bristol Channel.

Tides are caused by the "pull" of the moon, and to a less extent, of the sun. When these two pulls are "in line," as they are at new and full moon, the effect is at its strongest, and we have *spring* tides, whereas at the moon's "quarters," the pull being at right-angles, is at its least, and we have *neap* tides, when the sea neither "comes in" nor "goes out" so far. Over wide stretches of almost level sands, as in Solway Firth and the Dee estuary, the tide rises very rapidly, and at such places there is the greatest risk of being cut off upon some isolated sandbank. On certain points along our coast the strength of the tides is causing erosion. A striking example of this is to be found a few miles from Lowestoft, while the contrary is happening elsewhere, and shingle is being piled up at several points along the south coast such as Chesil Beach and Dungeness.

Currents must not be confused with tides, as they are really streams of water, moving usually parallel to the shore round a salient point, or through a narrow channel. They occasionally attain great strength and speed, and then are a menace to bathers or even to shipping. In the Pentland Firth (between Scotland and the Orkney Islands), the currents sometimes exceed twelve miles an hour. A combination of currents and tides will raise a confused and tumbling sea known as a "race," of which a good example occurs off Portland Bill.

Time and Watches at Sea

"Ship's Time" is based upon "watches," that is periods of time during which various members of the crew are on duty. The ship's "day" commences at noon and is divided up into various "watches" as follows:—

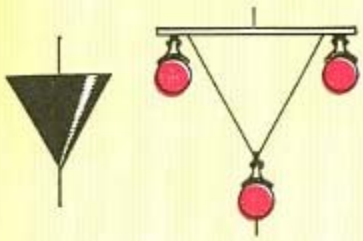
Afternoon Watch	…Noon to 4 p.m.	Middle Watch	…Midnight to 4 a.m.
First Dog Watch	…4 p.m. to 6 p.m.	Morning Watch	…4 a.m. to 8 a.m.
Second Dog Watch	…6 p.m. to 8 p.m.	Forenoon Watch	…8 a.m. to noon.
First Watch	…8 p.m. to midnight.		

The so-called "Dog Watches" of only two hours each are designed to change every night the hours during which the "starboard" and "port" watches are on duty. The time on board ship is announced on a bell: the number of strokes being given every half-hour; thus 12.30 is "1 bell"; 1 o'clock "2 bells"; 1.30 "3 bells'; 2 o'clock "4 bells," and so on up to "8 bells," which occurs at noon, 4 o'clock, 8 o'clock and midnight.

STORM SIGNALS, Etc.

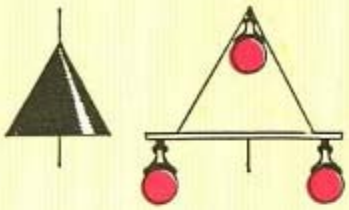
Visual Gale Warnings

South Cone A



By Day By Night

North Cone B



By Day By Night

A. Hoisted for Gales commencing from a Southerly Point

Commencing from a southerly point, such gales often veer, sometimes as far as north-west.

For gales commencing from east or west the S cone will be hoisted if the gale is expected to change to a southerly direction.

B. Hoisted for Gales commencing from a Northerly Point

For gales commencing from east or west the N cone will be hoisted if the gale is expected to change to a northerly direction.

When one of these signals is hoisted it indicates that a telegram has been received from the Meteorological Office by the station exhibiting the signal, that a gale is expected in the vicinity of the station.

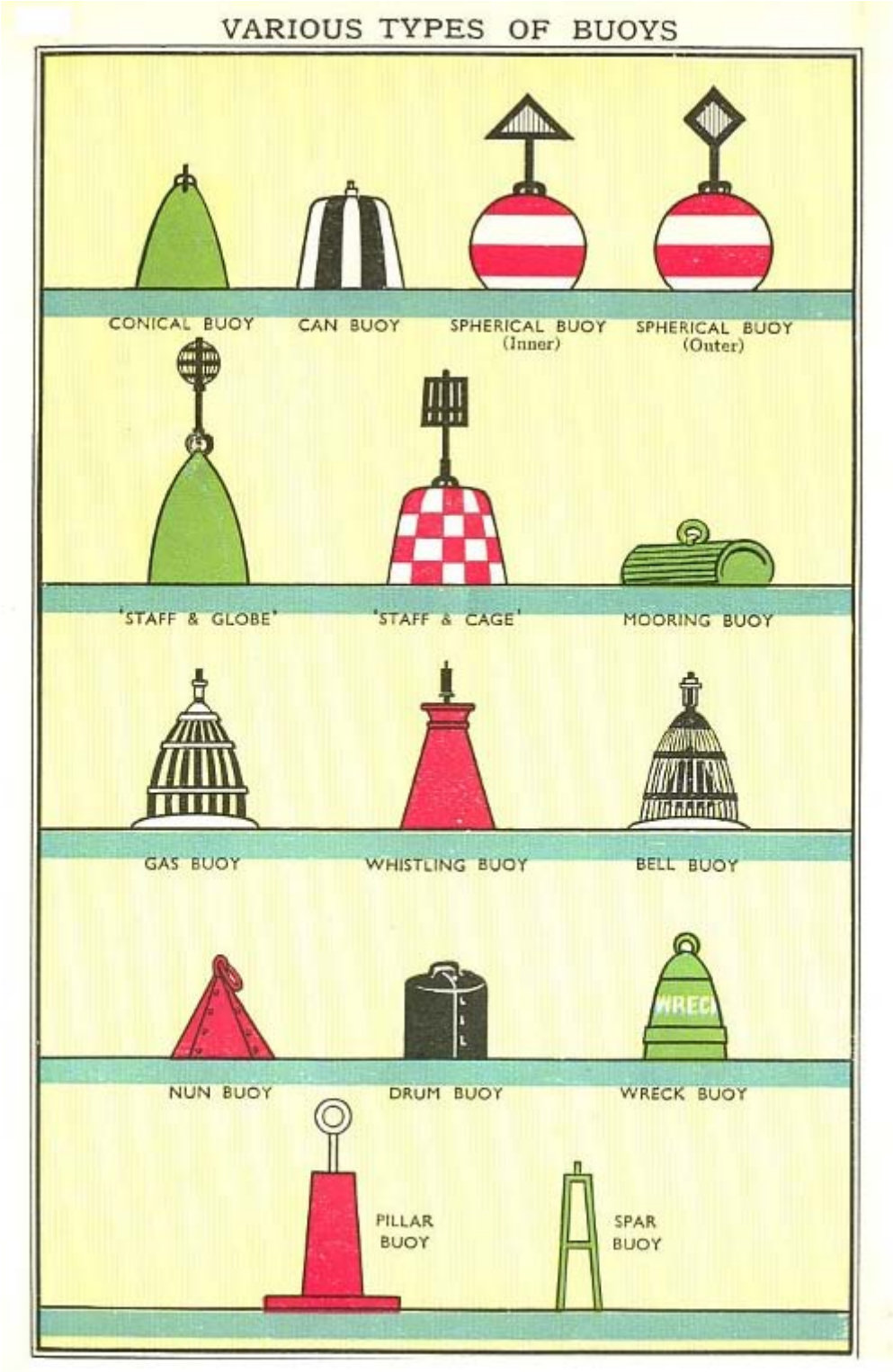
The signal will be lowered when the gale has passed, and it is anticipated that there will be a period of not less than twelve hours with winds of less than gale force. The cone is kept flying during a lull of the wind if a renewal of the gale is expected.

SIGNALS OF DISTRESS

When a vessel desires to attract attention to the fact that she requires assistance the usual signal is to fly the red ensign *upside down*, that is with the Union Jack in the bottom corner next to the mast.

To make the signal still more conspicuous the ensign is sometimes tied together in the centre, as shown in the second illustration.

At night a system of lights and flares is adopted. The wireless signal is, of course, the well-known international code, "S.O.S."


VARIOUS TYPES OF BUOYS
CONICAL BUOY
CAN BUOY
SPHERICAL BUOY (Inner)
SPHERICAL BUOY (Outer)
'STAFF & GLOBE'
'STAFF & CAGE'
MOORING BUOY
GAS BUOY
WHISTLING BUOY
BELL BUOY
NUN BUOY
DRUM BUOY
WRECK BUOY
PILLAR BUOY
SPAR BUOY

Buoys and their Meaning

BUOYS, generally, are sued to mark navigable channels, sunken dangers such as sandbanks or rock, telegraph cables and wrecks, while mooring buoys are means by which a ship can be secured without having to anchor. Buoys themselves have to be anchored to the bottom by a cable or cables; a certain amount of "slack" being allowed so that they can rise with the tide, but at the same time not swing too far out of position. When they are used for indicating the "fairway" or navigable channel leading to a port or harbour, buoys with a flat top showing above the surface, known as **"can"** or **"staff and cage"** buoys, are always placed on the "port" or left-hand side of the channel when entering, whilst those with a **conical** top, or **"staff and globe"** buoys, are always used on the "starboard" or right-hand side.

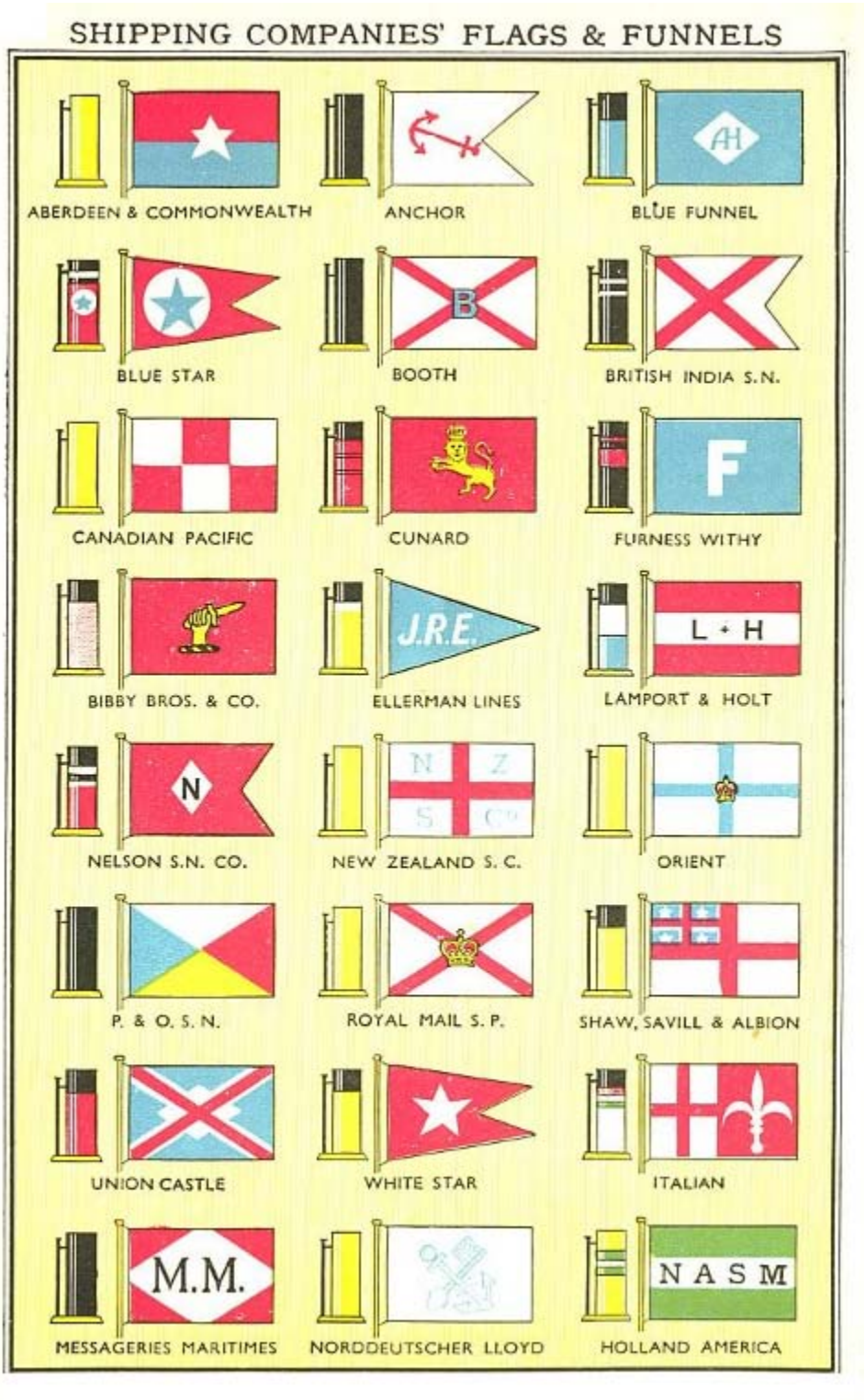
Buoys of each series must be painted a characteristic colour, so as to be distinguished readily one from the other, irrespective of their shape. When a channel is divided into two by a sandbank or other obstruction, this is known as a "middle ground," and its two ends are indicated by **"spherical"** buoys, which are always distinguished by white horizontal stripes: the one at its inner end being surmounted by a triangle, and that at its outer end by a diamond-shaped structure.

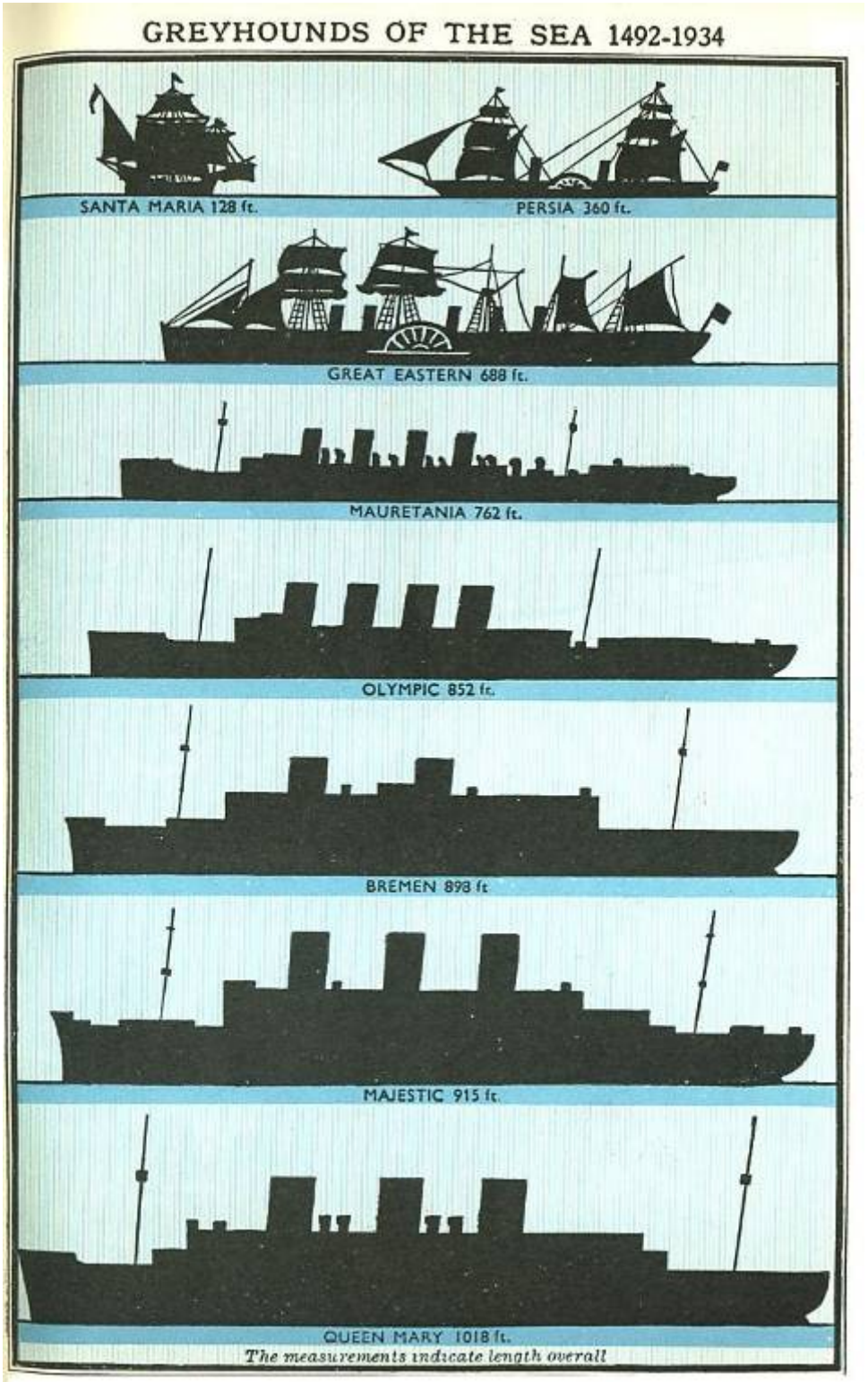
Buoys at the same side of a channel may be distinguished one from the other by names, numbers or letters.

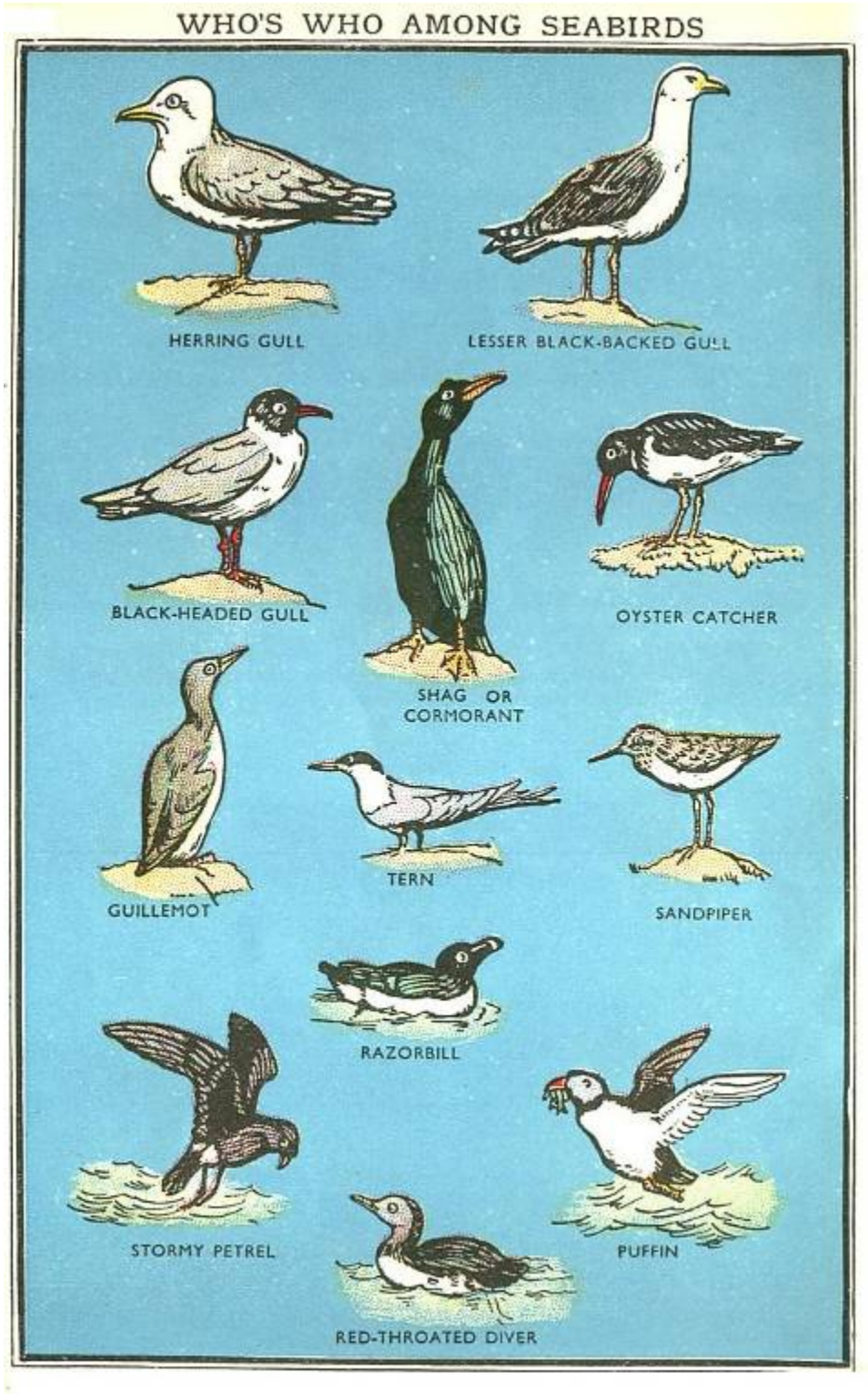
Those consisting of a tall central structure upon a broad "float" are known as **"pillar"** buoys, and like all other special buoys such as **gas** buoys, **bell** buoys and automatic sounding buoys are so placed as to mark special positions or dangers. **Gas** buoys enclose a chamber containing compressed gas which gives a light, and requires recharging at infrequent intervals but no other attention. **Electric-light** buoys are gradually coming into use: a turbine, operated by the movement of the water being connected with a dynamo which generates electricity. The so-called **whistling** buoy is operated by compressed air acted upon by the movement of the waves, while the **bell buoy** is kept in motion by the same means. The **nun buoy** indicates the position of an anchor after it has been let go; it is painted red for a port anchor, and green for the starboard.

Mooring buoys are of various shapes and sizes, but when marking telegraph cables they are always painted green with the word "Telegraph" painted on them in white letters.

Wreck buoys are also painted green with the word "Wreck" in white letters, and are usually placed to the side of the wreck nearest to the fairway.


SHIPPING COMPANIES' FLAGS & FUNNELS
ABERDEEN & COMMONWEALTH
ANCHOR
BLUE FUNNEL
BLUE STAR
BOOTH
BRITISH INDIA S.N.
CANADIAN PACIFIC
CUNARD
FURNESS WITHY
BIBBY BROS. & CO.
ELLERMAN LINES
LAMPORT & HOLT
NELSON S.N. CO.
NEW ZEALAND S. C.
ORIENT
P. & O. S. N.
ROYAL MAIL S. P.
SHAW, SAVILL & ALBION
UNION CASTLE
WHITE STAR
ITALIAN
MESSAGERIES MARITIMES
NORDDEUTSCHER LLOYD
HOLLAND AMERICA


GREYHOUNDS OF THE SEA 1492-1934
SANTA MARIA 128 ft.
PERSIA 360 ft.
GREAT EASTERN 688 ft.
MAURETANIA 762 ft.
OLYMPIC 852 ft.
BREMEN 898 ft
MAJESTIC 915 ft.
QUEEN MARY 1018 ft.
The measurements indicate length overall


WHO'S WHO AMONG SEABIRDS
HERRING GULL
LESSER BLACK-BACKED GULL
BLACK-HEADED GULL
SHAG OR CORMORANT
OYSTER CATCHER
GUILLEMOT
TERN
SANDPIPER
RAZORBILL
STORMY PETREL
PUFFIN
RED-THROATED DIVER

Who's who among Seabirds

THE Herring Gull is one of the larger gulls, measuring about twenty-four inches in length. The eggs, two or three in number, vary in colour, being every shade of blue or grey, or like the rocks on which they are laid. The Herring Gull frequently can be seen following shoals of herring.

The Lesser Black-backed Gull is not so widely distributed as the Herring Gull, preferring western England and Scotland for breeding, where it is found in colonies on grass-covered places. Their legs are yellow; those of the Black-headed Gull are red.

The Black-headed Gull is familiar in London and other places far inland during the winter, although the black colour of the head is absent until the following spring. They are the farmer's friends, as their food mostly consists of worms, crane-flies and wire-worms.

The Shag and Cormorant are very similar in appearance, but the latter can easily be distinguished by its larger size, sometimes being three feed in length. They are essentially marine birds and favour rocky coasts, feeding on fish, and the nests, which are found on rocks or in caves, are made of coarse vegetation. There are usually three, four, or five blue eggs with a chalky surface.

The Guillemot is one of the Auk family, but sits bolt upright like a penguin. Its food consists of fish. This bird builds no nest, but lays its solitary pear-shaped egg on the bare rock. Countless numbers frequent Bempton Cliffs near Flamborough, where fishermen secure their eggs, being lowered by ropes over the edge of the cliffs.

The Oyster Catcher breeds on the west coast and in Scotland and Ireland; its food consists of shell-fish, seaweed and worms. The nest is built on rocks, sand or rough ground, and the eggs, three in number, are stone colour with brown markings.

The Common Tern is widely distributed over the British Isles. The breeding grounds are usually shingle or ground without vegetation, where a rough nest is scooped out.

The Sandpiper is common in the west of England, but rare on the south-eastern coast. In flying away, when disturbed, it just skims the surface of the water. It nests on shingle, and lays four pear-shaped eggs with dark brown blotches.

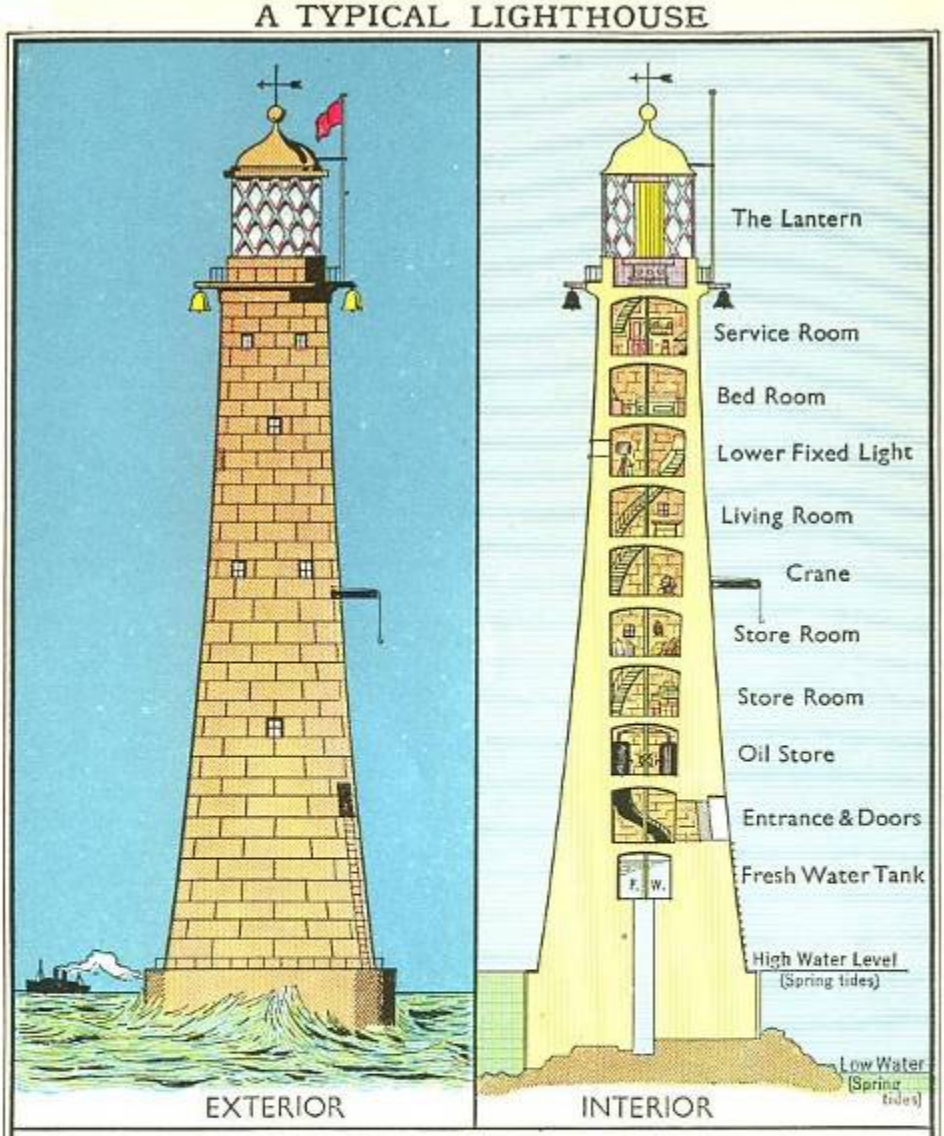
The Razorbill stays with us all the year round and lays its one egg in some corner of the rocks. This bird is often found with the Guillemot, sharing the same nesting places.

The Stormy or Storm Petrel (sometimes known as Mother Carey's chicken) breeds only in certain places on the extreme west coasts of our islands, but is seen off all our shores during spring and autumn. Its nest is on some rocky spot, where one egg is laid on a lining of grass, usually the same nesting site year after year.

The Puffin is another of the Auk family, and is easily recognised by its curious beak and characteristic pose, which gains it the nickname of "Pope." It visits all our coasts in summer, and is an expert diver, breeding in colonies, and laying one whitish egg.

The Red-throated Diver is the most common of the divers; it breeds in Scotland and only visits our southern coasts in winter. Its nest is merely a depression in the ground at the water's edge and is scantily lined with coarse grass. There are usually two eggs, which are dark brown spotted with black.

A TYPICAL LIGHTHOUSE



VARIOUS LIGHTS SHOWN BY LIGHTHOUSES, Etc.

Lighthouses are usually placed at salient points along the coast, or, occasionally, on isolated rocks some distance out at sea, as in the case of Eddystone. Their lights not only warn passing vessels not to approach too close, but owing to the type of beam they throw it is possible for the mariner to identify each one and so check his position.

The simplest of all is the "**Fixed**" light, that is a continuous beam, which, as in the other types, may be either white, red or green in colour—usually the first. Secondly, there is the "**Flashing**" light, which is exposed at regular intervals for a moment or two only, and the "**Revolving**" light, whose beam sweeps over the water as the mechanism revolves, while "**Occulting**" lights are fixed lights which at intervals are obscured or occulted. Several combinations of these types are used, such as "**Fixed-Flashing**," "**Group-Occulting**," etc., and by this means and by their colour the watch on a passing ship on reference to his chart can readily recognise a light, even though the coastline is quite invisible.

SEA PIE

Meat (steak)	**4 lbs.**
Onions	**1 lb.**
Mixed Vegetables	**1 lb.**
Flour	**1 lb.**
Suet	**4 ozs.**

Clean meat and vegetables; cut in small cubes; put in pot, just cover with water and bring to a boil. Make suet crust (flour, suet, baking-powder) cut to shape of pot; place it on meat, etc., in pot, simmer slowly for 2½ hours.