SECOND GRADE

现代英语 第二级

• 读与写

READING AND WRITING

STUDENTS' BOOK 2

G.R. Evans
D. Watson

Macmillan
China HEP

参加《现代英语》审稿的有上海交通大学杨惠中，重庆大学韩其顺，北京外国语学院周献桃和高等教育出版社曹根望。

现 代 英 语

读与写

第2级

G.R.埃文斯　D.沃森

*

中国高等教育出版社

英国麦克米伦出版公司 出版

新华书店北京发行所发行

外 文 印 刷 厂 印 装

*

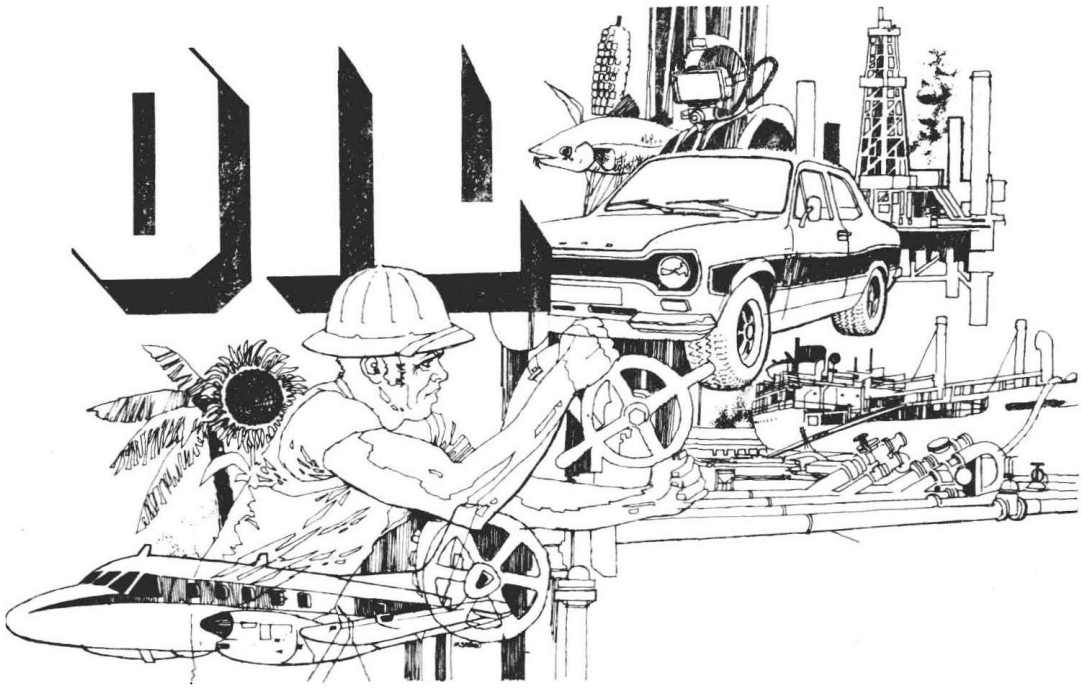
开本787×1092　1/16　印张7.25　字数190,000

1986年11月第1版　1986年11月第1次印刷

印数　000,001-130,300

书号 9010·0291　定价 1.35元

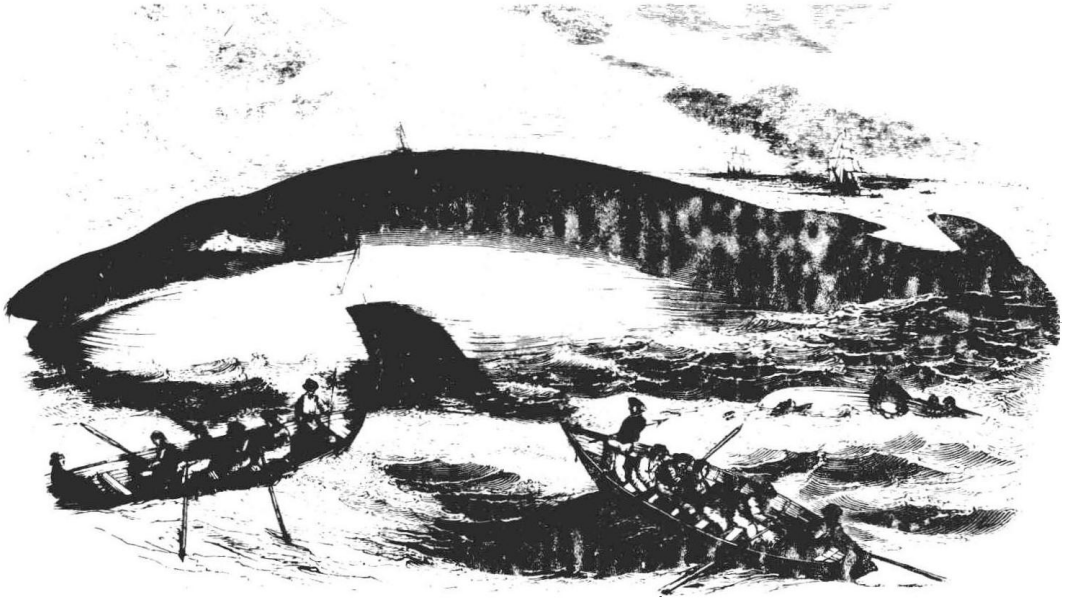
Contents



UNIT 1

OIL

There are three main groups of oils: animal, vegetable and mineral. Great quantities of animal oil come from whales, those enormous creatures of the sea which are the largest remaining animals in the world. To protect the whale from the cold of the Arctic seas, nature has provided it with a thick covering of fat called blubber. When the whale is killed, the blubber is stripped off and boiled down. It produces a great quantity of oil which can be used for human consumption. A few other creatures yield oil, but none so much as the whale.

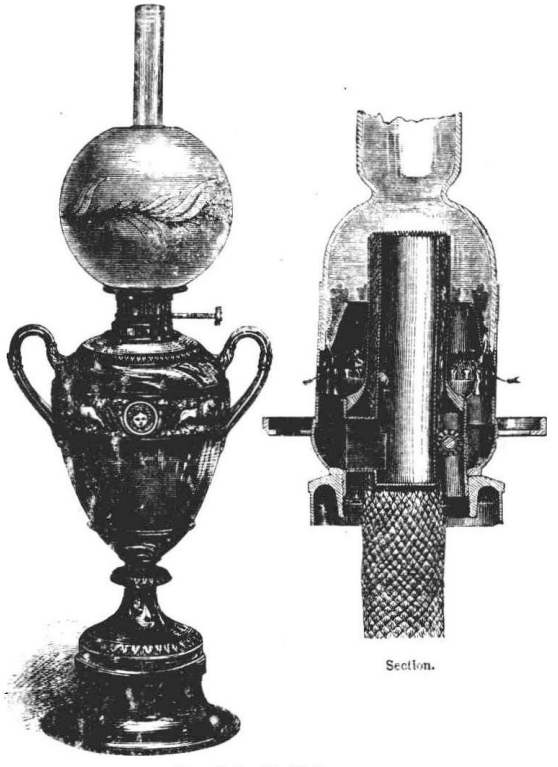


FIN WHALE OR ROKQUAL.—*Balænoptera Boops.*

Vegetable oil has been known from very early times. Few homes can get on without it, for it is used in cooking. The oils of certain flowers are used to make the body smell nice; soap is made from animal and vegetable oil.

To the ordinary man, one kind of oil may seem as important as any other. But when the politician or the engineer refers to oil, he almost always means mineral oil — the oil that drives tanks, aeroplanes and warships, motorcars and locomotives; the oil that is used to help all kinds of machinery to run smoothly. This is the oil that has changed the life of the common man. When it is refined into petrol it is used to drive machines in which petrol is burnt to give power. To it we owe the motorcar and to it we owe the possibility of flying. It has changed the methods of fighting on land and sea. This kind of oil comes out of the earth. Because it burns well it is used as fuel and in some ways it is superior to coal in this respect. Many big ships now burn oil instead of coal. Because mineral oil burns brightly it is used for giving light; many homes are still lit by oil-burning lamps. Because it is very smooth it is used in all machines. Two metal surfaces rubbing together cause friction and heat; but if they are separated by a thin film of oil, the friction and heat are reduced. No machine would work for long if it did not have oil in it. The oil used for this purpose must be of the correct thickness; if it is too thin it will not separate the surfaces of the machine sufficiently, and if it is too thick it will not reach all the parts that must be lubricated.

The existence of oil wells has been known for a long time. No-one, however, seems to have realised the importance of this oil until it was found that paraffin-oil, used for lighting, could be made from it. This led to the development of the wells and to the making of enormous profits. When the petrolburning engine was invented, mineral oil became of world-wide importance.

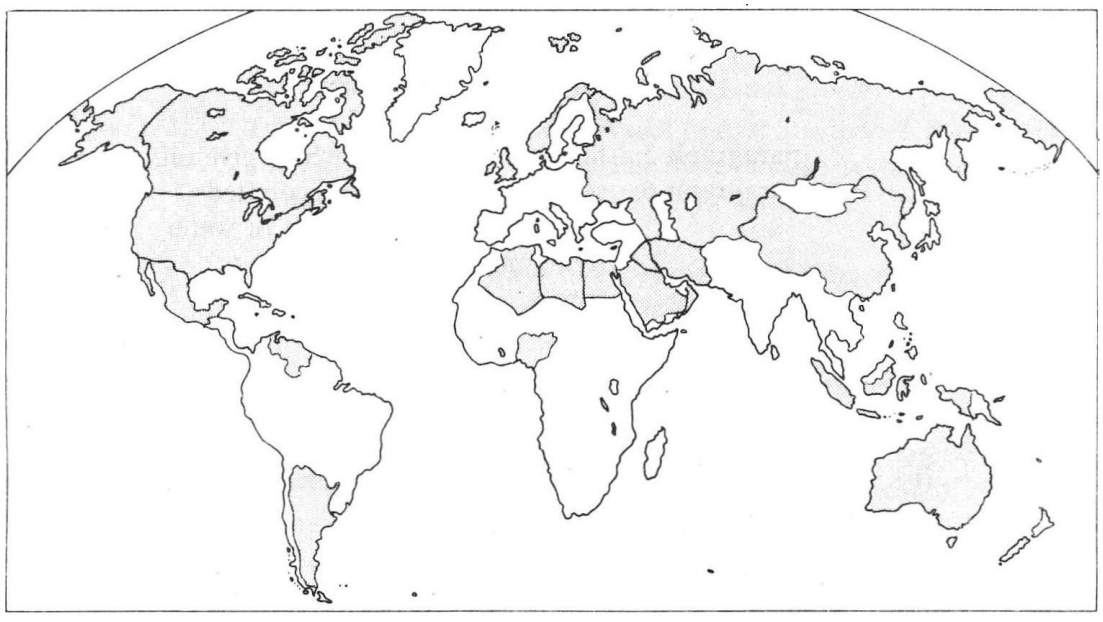


Young's Paraffin Oil Lamp.

What was the origin of the oil which now drives our motorcars and aircraft? Scientists are confident about the formation of coal, but they do not seem so sure when asked about oil. They think that the oil under the surface of the earth was made in the distant past and was formed from living things in the sea. Countless billions of minute sea creatures and plants died and sank to the sea bed. They were covered with huge deposits of mud and, by being pressed and heated, were changed through long ages into what we know as oil. For these creatures to become oil, it was necessary that they should be pressed between layers of rock for an enormous length of time. The statement that oil was made in the sea is confirmed by a glance at a map showing the chief oilfields of the world; very few of them are far distant from the oceans of today.

There are four main areas of the world where deposits of oil appear. The first is that of the Middle East, and includes the regions near the Caspian Sea, the Black Sea, the Red Sea and the Persian Gulf.

Another is the area between North and South America, and the third, between Asia and Australia, includes the islands of Sumatra, Borneo and Java.



The fourth area is the cold region near the North Pole, not yet exploited. Yet the difficulties will be great, and the costs may be so high that no company will undertake the work. It is possible, too, that other sources of power may be developed to take the place of oil. In that case the deposits of the North Pole may rest where they are for ever.

EXERCISES

BEFORE READING

1 **Before reading the text, think about the following questions. Write down your answers.**

1 What are the uses of animal oil, vegetable oil and mineral oil?
2 Which type of oil is the most important? Why?
3 Which parts of the world yield mineral oil?
4 How was mineral oil formed?
5 Which of these words, corresponding to the questions above, do you think will appear in the passage?
   (i) cooking, perfumes
   (ii) machinery, motorcar, burn, friction, lubrication
   (iii) seas, North America
   (iv) creatures, pressed, rock

Can you think of any other words which will probably appear?

AFTER READING

VOCABULARY

2 (a) **Find words in the text which mean approximately the same as the following:**
paragraph 1: give (there are two examples; one is a phrase)

paragraph 2: a place where people live
paragraph 3: a person who takes part in governing a town, country etc
better than
paragraph 4: illuminating
the force which tends to prevent the movement of one object against another
go to
paragraph 5: holes in the ground which give oil, water etc
paragraph 6: so many they can't be counted
the land beneath an area of water
flying machines
sure
a quick look
paragraph 6: used or developed
start or do

(b) **Now use the words you have found to complete these sentences. You may need to change the form of the words.**

1 Modern watches and clocks have fewer moving parts; this makes for less ____ and so they last longer.
2 The fisherman waited and waited, but all he caught was an old boot which had lain on the river ____ for years.
3 All visitors visiting the factory will be ____ protective hats.
4 The stars in the sky, like the hairs on a donkey, are ____.
5 Scientists are ____ that the satellite will work.
6 The weather was so bad that no ____ could fly.
7 Modern timepieces are generally ____ those of our parents and grandparents.
8 ____ is the science of reality, not the art of ideals.
9 After a wet summer, many agricultural areas ____ poor harvests.
10 I'm so busy that I doubt I can ____ any more work, I'm afraid.
11 If you want to know what the weather is like, a ____ out of the window will tell you.
12 I've been working all day but now I'm going ____.
13 Many people now think that the few areas of the world which remain ____ should be left alone.
14 Deep ____ in the Sahara now irrigate parts of the desert.
15 We can still see plants and animals which were ____ between layers of rock long ago.

SIGNPOSTS 3 IN LANGUAGE

(a) You'll find it easier to read texts like 'Oil' if you understand and look out for certain words and phrases called 'semantic markers'. They can help to guide you through the most difficult passages. Here are some:

1 *because, for, therefore:* these words introduce a cause and effect relationship.
2 *for example, for instance:* an example will follow.
3 *the first, another, the fourth:* these words accompany a list.
4 *then, when, after, for:* these words indicate a time relationship.
5 *but, however, on the other hand:* these markers introduce a contrasting sentence.
6 *in other words; that is:* the writer is going to repeat what he is saying in another way.

7 *only when, if, unless:* these words introduce a condition.

(b) **Can you think of more semantic markers for each of the seven categories? Now underline all the semantic markers in the text.**

TIME 4

(a) The text contains a lot of phrases to describe time, e.g. *from very early times* and *through long ages*. Underline these phrases in your book. Time phrases are common in certain types of scientific writing.

The two common ways of expressing past time are:
1 to define the time after a specific date or event, using *since* (or *from*);
2 to describe the length of the time itself, using *for* (or *through*).
For example:
1 Oil has been of world-wide importance *since* the invention of the motorcar/*since* the early 19th century/*since* the Great War.
2 Oil has been of world-wide importance *for* most of our lives/*for* three-quarters of a century/*for* 85 years.

(b) **Here are some more time phrases. First decide whether they should follow *for* or *since* and then write ten sentences like those in the text.**

e.g. Vegetable oil has been known for centuries.

centuries many generations time immemorial 1066 the Stone Age millenia prehistory the formation of the seas the discovery of fire decades

TOO THICK OR TOO THIN? 5

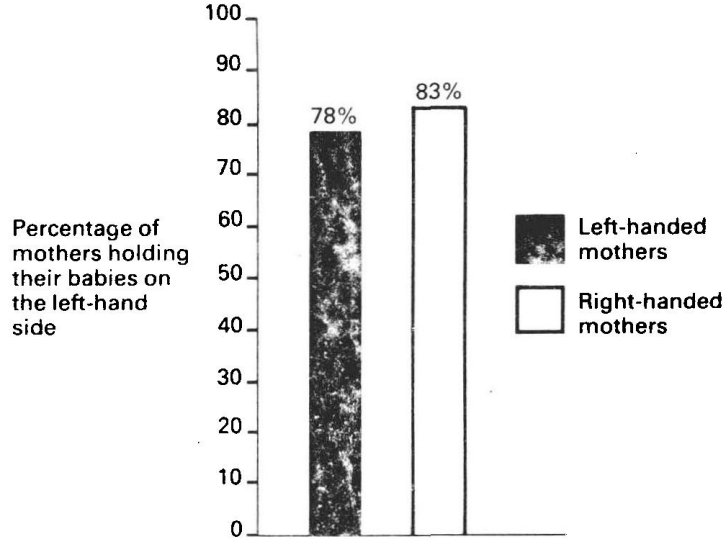
(a) **Read these sentences carefully:**
1 The oil must be of the correct thickness.
2 If it is too thick it will not separate the surfaces of the machine sufficiently.
3 If it is too thick it will not reach all the parts.
4 This oil is too thin to separate the surfaces of the machine sufficiently.
5 That oil is too thick to reach all the parts.

(b) **Now complete these similar sentences:**
1 Aircraft must approach the airport at the correct speed.
2 If they _____ they won't stop in time.
3 If they _____ they won't reach the airport.
4 This plane approached _____.
5 That plane approached _____.

UNIT 2

OBSERVATIONS AND EXPLANATIONS

It is worth looking at one or two aspects of the way a mother acts towards her baby. The usual touching, stroking and cleaning require little comment, but the position in which she holds the baby against her body when resting is rather important. Careful American studies have revealed the fact that *80 per cent of mothers hold their babies in their left arms,* against the left side of their bodies. If asked to explain the significance of this preference, most people reply that it is obviously *the result of the greater number of right-handed people in the population.* By holding the babies in their left arms, the mothers keep their more important arm free. But a detailed analysis shows that this is not the case. True, there is a small difference between right-handed and left-handed mothers, but not enough to give an adequate explanation. It emerges that 83 per cent of right-handed mothers hold the baby on the left side, but then so do 78 per cent of left-handed mothers. In other words, only 22 per cent of the left-handed mothers have their left hands free for actions. Clearly there must be some other explanation.



The only other clue comes from the fact that the heart is on the left side of the mother's body. *Could it be that the sound of the heart-beat is the vital thing?* And in what way? Thinking along these lines it was argued that perhaps while it is inside the body of the mother the growing embryo starts to depend on the sound of the heart-beat. If this is so, then the rediscovery of the familiar sound after birth *might have a calming effect on the baby,* especially as it has just come into a strange and frighteningly new world. If this is so, then the mother, either naturally or by an unconscious process of trial and error[1], would soon arrive at the discovery that her baby is more at peace if held on the left side against the heart than on the right.

This may sound strange but *tests have now been carried out* which reveal that it is the true explanation. Groups of new-born babies in a hospital were exposed for a long time to the recorded sound of a heart-beat at a standard rate of 72 beats per minute. There were nine babies in each group and it was found that one or more of them was crying for more than 60 per cent of the time when the sound was not switched on, but that this figure fell to only 38 per cent when the heart-beat recording was thumping away. The heart-beat group also showed greater weight gain than the others.

So it seems fairly certain this is the explanation of the mother's left-sided method of baby-holding. It is interesting that when *466 Madonna and child paintings*[2] *(dating back over several hundred years)* were analysed, 373 of them showed the baby on the left breast. Here again the figure was at the 80 per cent level. This contrasts with observations of females carrying parcels where it was found that 50 per cent carried them on the left and 50 per cent on the right.

Nor does it stop there. Right into adult life the phenomenon seems to stay with us. *We rock back and forth on our feet when we are nervous.* The next time you see a lecturer swaying from side to side, check

his speed for heart-beat time. His nervousness at facing an audience makes him do the most comforting thing he can in the circumstances. He switches on the old familiar beat of the heart.

Notes

1 trying again and again without thinking until the best way is found

2 paintings showing Jesus Christ as a child in the arms of the Virgin Mary

EXERCISES

BEFORE READING

1 (a) **Before reading the text, find the parts which are *in italics*. Read these parts quickly, then answer these questions.**

1 The passage is about one aspect of the way a mother acts towards her baby. Which aspect?
2 What are two possible reasons for what she does?
3 What could be the effect of it?
4 Have there been any experiments to support the writer's opinion?
5 What historical observation does he make?
6 What observation does he make of adult life?

(b) **Now read all the sentences which contain figures. Do they help you to understand and answer any of the questions above?**

AFTER READING

VOCABULARY

2 (a) **Try to guess the meaning of these words from their context in the passage. Then use a dictionary to check their meanings.**

paragraph 1: stroking
revealed
paragraph 2: clue
heart-beat
vital
embryo
paragraph 3: exposed to
thumping away
paragraph 4: analysed
parcels
paragraph 5: rock
swaying

(b) **Find words in the text which mean approximately the same as the following:**

paragraph 1: explanation
meaning *or* reason
choice of one thing (or action) rather than another
good or strong enough
becomes known as the result of research
paragraph 2: need
without thinking
paragraph 3: (of babies) very young

usual or normal
(of electrical equipment) in operation (phrase of 2 words)
increase

paragraph 4: way of doing something
is different from (*2 words*)

paragraph 5: something that can be observed
unhappy or frightened about something
group of people who watch or listen

(c) **Now use the words you have learnt in (a) and (b) to complete these sentences. You may need to change the form of the words.**

1 Oil is ____ to machines.
2 In high winds trees ____ from side to side.
3 Workers whose pay is ____ will soon get pay ____. (make a negative adjective)
4 When it became dark I ____ the lights ____. (*phrase of 2 words*)
5 The truth ____ after many experiments and tests.
6 Life in towns ____ greatly ____ life in the countryside. (*phrase of 2 words*)
7 The student felt very ____ while waiting for the result of his examination.
8 What is the ____ of that bell?
It means Fire! Help!
9 Nowadays we ____ so many things that people didn't need a hundred years ago, such as motor cars and television. (*Phrase of 2 words*)
10 In adult life many ____ remind us of the mother's heart; popular music is one.

READING AT A GLANCE 3

Read the following quickly and without moving your eyes to find the words which are repeated:

1 nervous obviously embryo trials embryo
2 aspect result error effect error
3 significance preference population significance
4 touching stroking dating rocking stroking

NOTES 4

Here are notes based on the reading text.

1 Make notes of your own on one paragraph and then compare them with the notes below.
2 Underline the original sentences in the other paragraphs of the passage.

paragraph 1: US studies = 80% mothers hold in left arm
why? 1 ∵ more r/handed mothers ∴ to keep r hand free
but so do 78% l/handed mothers

paragraph 2: why? 2 ∵ heart on left
∴ embryo depends on h/beat
→ calming effect after birth into strange new world
natural or trial and error

paragraph 3: = strange
but v hospital tests
h/beat = less crying + greater weight gain

paragraph 4: 373/466 Madonna + child with baby on left
of females carrying parcels = 50%

paragraph 5: continues into adulthood

e.g. 1 lecturers rocking on feet

3 Are there any unnecessary notes in this list?

4 Are there any notes you would like to add?

5 Now rewrite each line of notes in grammatical English. Try to use your own words. The first paragraph has been done for you.

paragraph 1: American studies show that 80% of mothers hold their babies in their left arms.
Why is this? One reason may be that there are more right-handed mothers.
Therefore mothers do it to keep their right hand free.
But 78% of left-handed mothers also hold their babies in their left arms.

THE IMPERSONAL 'IT'

5 (a) There were two examples of this usage in the text in Unit 1. Can you remember these examples well enough to complete them?

1 For sea creatures to become oil, it was necessary _____.

2 The North Pole will be difficult and expensive to exploit, and it is possible _____.

'It' in these two sentences doesn't mean or stand for anything; but there are many common phrases and idioms where it must not be omitted.

(b) There are more examples in the text in this unit. Try to remember them before looking at the list below.

paragraph 1: it emerges that...
paragraph 2: could it be that...?
it was argued that...
paragraph 3: it was found that...
paragraph 4: it seems fairly certain that...
it is interesting that...

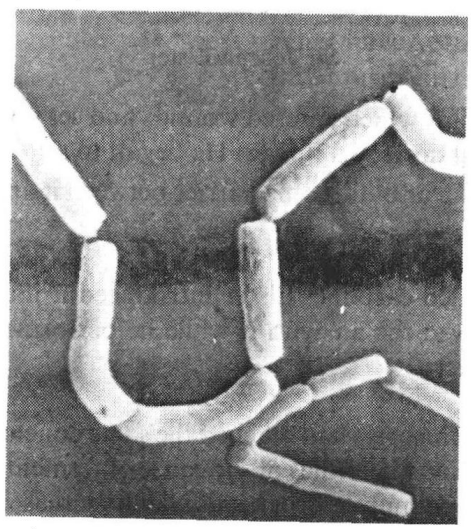
(c) In the following sentences from the passage, 'it' stands for something, unlike the impersonal 'it' above. Look at the passage again to find out what it stands for in each sentence.

paragraph 1: ... it is obviously the result of the greater number of right-handed people in the population.
paragraph 2: ... it has just come into a strange and frighteningly new world.

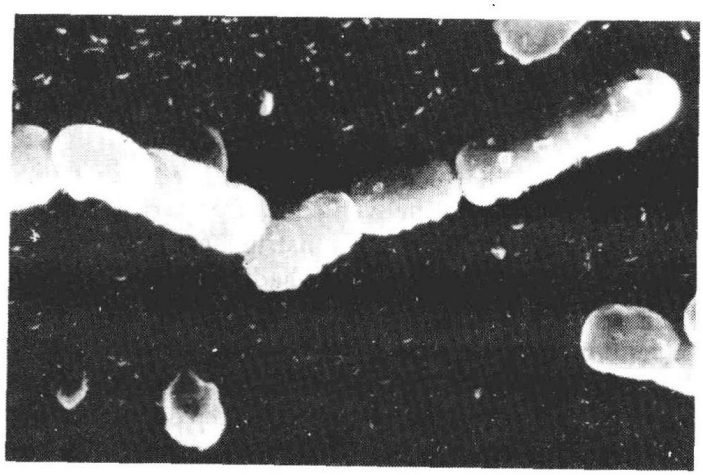
UNIT 3

MAKING SURGERY SAFE

In the early 1860s three men who knew nothing of each other were each working towards a discovery which saved millions of lives, revolutionised surgery, made great changes to the food we eat and supplied the clue to hundreds of diseases. What they discovered was germs, the minute organisms which could only be seen through the most powerful microscropes, but which were able to destroy the living cells around them.



Clostridium welchii, the cause of blood poisoning, some types of food poisoning and gas gangrene in man



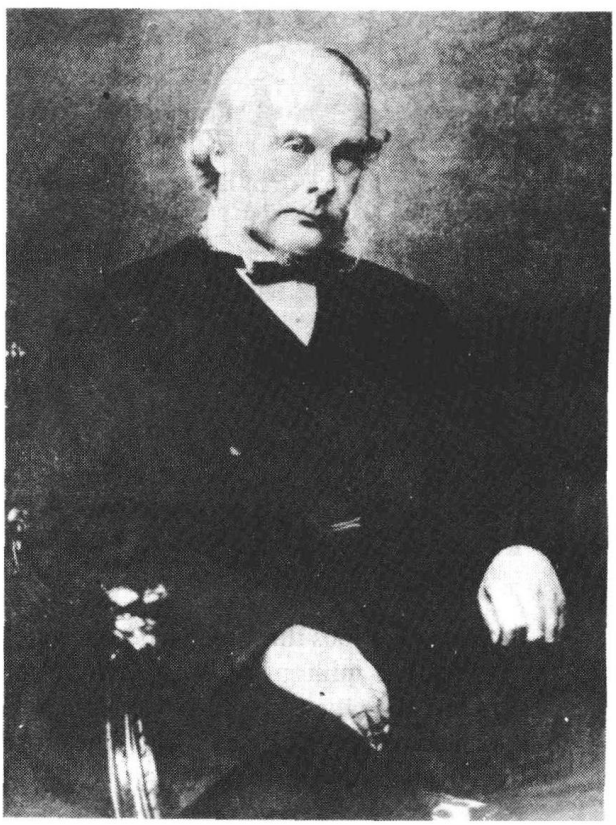
Pseudomonas aeruginosa, associated with infections in wounds and severe burns

It was in surgery* that the most interesting results of that discovery were obtained.

In those days, in every hospital, whether from some original injury or from the surgeon's knife, wounds became diseased, and in a few days the patient died as the whole body became poisoned. Terrible epidemics of this 'Hospitalism', as they called it, would spread through the hospitals. Often the authorities would close a hospital for a time to try to stop the disease. But always it returned.

In a great Glasgow hospital a brilliant surgeon* named Joseph Lister fought this evil. He was a serious young man, and he was giving his life to this task of making surgery safe. Once he said, concerning a wound that was improving: 'It is the main object of my life to find out how to procure such a result in all wounds.'

A sixteenth-century amputation (artist unknown)



Sir Joseph Lister

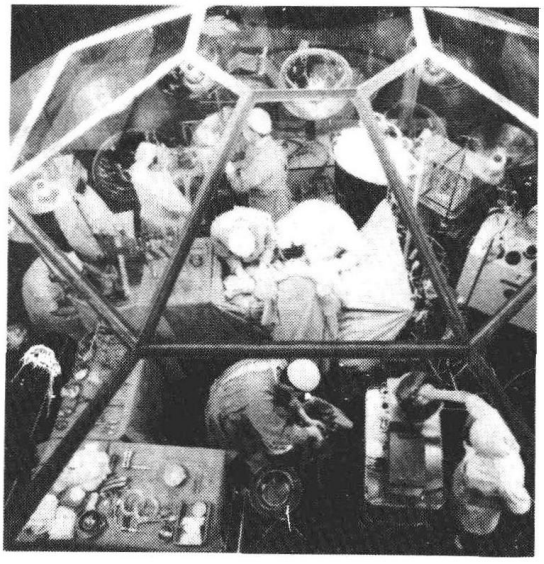
What Lister suspected was that there were minute organisms which entered wounds and set up their own existence there, destroying human cells as insects will destroy a flower. He began to search for some substance which would destroy this lower form of life, or build some barrier between it and the open wound.

He found what he wanted in a powerful disinfectant called carbolic. Lister introduced it into the hospital. He dipped his instruments in it, and even sprayed the air with it while he performed his operations. Joseph Lister had introduced antiseptic surgery.

It is interesting that in his hospital in Vienna, Dr Ignaz Semmelweis had reached the same conclusion. And in France the chemist, Louis Pasteur, had just published his studies of the cause of fermentation in wines. He demonstrated that the dust of the air contained minute organisms which increased and multiplied when they came into contact with the right conditions. He conducted the most careful experiments, and demonstrated that fermentation which took place in the dirty air of Paris did not do so in the pure air of the high Alps.

On the Continent, in Copenhagen, Leipzig, Munich, and under the great doctor Volkmann at Halle, the idea of antiseptics expanded to the idea of creating operating theatres and operating conditions which give no place at all for germs. The antiseptics of Lister evolved into the aseptics of modern surgery.

Germs, these enemies of mankind, had at last been discovered. By the hard work of three men, mankind has become healthier and is living longer.



An open heart operation in a modern French hospital

EXERCISES

BEFORE READING

1 (a) **Before reading the text, look up these words in your dictionary:**

antiseptic disinfectant epidemic germs
injury poisoned chemical diseased surgery

(b) **Now think about these questions:**
1 What problem does the text deal with? Who did it affect and where?
2 What was the cause?
3 What was the solution?

(c) **Read the first and last paragraphs of the text.**
What have you learnt about:
1 the problem, and its cause?
2 the solution and its effects?

(d) **Write down ten words that you would expect to find in the text.**

AFTER READING

VOCABULARY

2 (a) **Find words in the text which mean approximately the same as the following:**

paragraph 1: caused revolutionary changes in living things
paragraph 2: not healthy (= diseased)
paragraph 3: a very bad thing
a difficult thing which must be done

make something happen

paragraph 4: a small animal with six legs (and sometimes with wings)
something between one thing and another

paragraph 5: put into water or another liquid
to spread, or cover something with, a liquid in very small drops

paragraph 6: an opinion reached after careful thought or experiment
made known through books, newspapers, etc
chemical change (e.g. in sugar when making wine or beer)
showed by explaining or conducting an experiment

paragraph 7: freedom from germs

paragraph 8: all the people in the world

(b) **Now use the words you have found, or the words given above, to complete these sentences. You may need to change the form of the words.**

1 Modern ____ techniques enable doctors to replace diseased organs.
2 In the 16th century a great ____ killed thousands of people in London.
3 The Thames ____ was designed to prevent river water flooding nearby land.
4 The two ____ of starvation and war are still killing millions each year.
5 To kill germs, toilets and cooking areas should be regularly cleaned with ____.
6 The flu ____ is a very common ____.
7 In warm weather ____ often carry germs on to our food.
8 The object of medicine is to ____ healthy bodies.
9 It is now known that large-scale ____ of certain chemicals on the land can poison our water supply.
10 Sheep are regularly ____ in liquid chemicals to prevent the spread of diseases.

NOTES (1) 3

Here are some notes on the text. They were done rather quickly and most of them are inaccurate. Put a tick (✓) next to the right ones and a cross (×) next to the wrong ones. Do this exercise as quickly as you can.

1 In the early 1860s three men were working towards a discovery which:
(i) revolutionised millions of lives
(ii) supplied the clue to hundreds of diseases
(iii) saved surgery
(iv) could only be seen through the most powerful microscopes
(v) made great changes to our food
(vi) was able to destroy living tissues

2 In hospitals:
(i) wounds became original
(ii) the surgeon's knife became diseased
(iii) the bodies of patients became poisoned
(iv) epidemics spread
(v) diseases were stopped

3 Lister:
(i) worked in Glasgow
(ii) lived in a great hospital
(iii) was an evil surgeon
(iv) was a brilliant young man
(v) wanted to make surgery safe