



自学函授基础课教材

# 自学函授英语(三)



北京工业学院出版社

## 内 容 简 介

本书是供高等工业学校函授大学第三学期公共英语课之用, 约需155学时。全书12课, 共有精读课文12篇, 阅读材料24篇, 生词430个, 词组147个; 重点讲解常用词语166个, 短语动词33个。精读课文和阅读材料绝大部分选自英美原著, 是科普性文章, 内容新颖广泛, 富有知识性和趣味性。

本书在基本语法授完的基础上, 就英语中某些较难掌握的语言现象, 分12个专题从翻译的角度加以阐述, 并配有相应的练习。这有助于读者掌握一定的翻译技巧和加深对某些英语句型的理解。书末附有参考译文和练习答案, 可供查阅。本书也可作为英语爱好者提高阅读能力和翻译技能的良师益友。

## 自 学 函 授 英 语

### (三)

赵同水 桂济世 编  
史润东 朱君瑞

\*

北京工业学院出版社出版  
新华书店北京发行所发行 各地新华书店经售  
外文印刷厂印刷

\*

787×1092毫米 32开本 18.75印张 385千字  
1988年6月第一版 1988年6月第一次印刷  
I S B N 7-81013-032-3/H·4  
印数: 1—8,000册 定价: 3.05元

## 编 者 的 话

本书是《自学函授英语》第三册，供高等工业学校函授大学第三学期公共英语课之用，约需155学时（包括面授、自学和测验时数，具体安排由教师酌情决定）。本册编写原则、内容安排和教学要求与第二册相同。

全册分12课，共有精读课文12篇，阅读材料24篇，生词430个，词组147个（阅读材料中出现的生词除外）。精读课文和阅读材料绝大部分选自英美原著（为了控制生词量，有些文章略有修改），是科普性文章，内容新颖广泛，富有知识性和趣味性。学生必须学好精读课文，才能顺利完成全部练习。为了提高阅读能力，每课选编了两篇阅读材料，均有注释和理解性练习，务必要求学生及时阅读这些材料，并逐渐提高他们的阅读速度和理解的准确程度。

在基本语法已授完的基础上，本册就英语中某些较难掌握的语言现象，分12个专题从翻译的角度加以阐述，并配有相应的练习。我们的意图是想使学生既掌握某些英语句型的翻译技巧，又可加深对这些语言现象的理解和英汉两种语言特点的认识。

同第二册一样，本册仍重视对常用词语的讲解和练习。在“Usage of Words”中共选常用词语156个，在“Phrasal Verbs”中共选短语动词33个，均举例说明其意义和用法。要学好英语，必须掌握足够数量的常用词语。

本册练习仍包括三部分：第一部分侧重词语用法和对

课文理解的训练，第二部分就该课的语法重点集中进行翻译训练，第三部分是有关所学语言知识的综合性练习。只有通过尽可能多的练习，才能巩固和掌握所学的语言知识。因此，要求学生必须按时完成全部练习。

书末附有参考译文、练习答案，供教学参考之用。由于篇幅所限，不附总词汇表了。

本书全部初稿由北京外国语学院夏祖燧教授审阅，并作了细致的加工润色，我们在此向他表示衷心的感谢！书中可能还存在一些缺点和错误，希望广大读者和同行们给予指正。

编 者

一九八七年十一月

# Contents

<b>Lesson One .....</b>	<b>1</b>
Text: Glass	
Usage of Words: bring, take, get, carry; material, matter, substance; shape, form; pipe, tube; enough	
Phrasal Verbs: work into; blow into; decorate with	
Grammar: It 的用法和翻译	
Reading Material: I. Our Eyes II. Rubber	
<b>Lesson Two .....</b>	<b>39</b>
Text: Sometimes They Seem Almost Human	
Usage of Words: complex, complicated; probable, possible; look after, take care of, care for; perform, do; draw	
Phrasal Verbs: drive away; adapt to; send out	
Grammar: As 的主要用法和翻译	
Reading Material: I. Porpoises II. Electric Fish	
<b>Lesson Three .....</b>	<b>75</b>
Text: Balance of Nature	
Usage of Words: recover, restore; fall, drop, sink; power, energy, force, strength; plant, grow	
Phrasal Verbs: put on; take away; depend on (upon)	
Grammar: 省略和翻译	

- Reading Material:** I. Nature Recycles Water  
II. Environmental Pollution

**Lesson Four** ..... 111

**Text:** Automation

**Usage of Words:** technology, technique; question, problem; consequence, result; rule, control; get, obtain, gain; a great (good) many, many a (an), a great deal of, a lot of, plenty of

**Phrasal Verbs:** put to; relieve of

**Grammar:** 定语从句及翻译

- Reading Material:** I. "Ever Tried Talking to a Computer?"  
II. Machines that Mimic Man

**Lesson Five** ..... 148

**Text:** An African Student in the United States

**Usage of Words:** sound, noise, voice; used to be (do), be (get) used to something; labour, work; prepare, ready; expect, hope, wish, desire, look forward to

**Phrasal Verbs:** get out of; put into; pay for

**Grammar:** 不定式的译法

- Reading Material:** I. A Sabbatical Leave  
II. Engineers

**Lesson Six** ..... 190

**Text:** Marketing, Past and Present

**Usage of Words:** accept, receive; separate, divide; use, utilize, apply; product, produce, production; service

Phrasal Verbs: agree on; agree to; agree with; exchange for	
Grammar: 倒装结构及翻译	
Reading Material: I. Gathering Market Information II. Consumer Behavior	
<b>Lesson Seven</b> .....	227
Text: Communication	
Usage of Words: distant, far, remote; improve, better, help; instant, moment; instance, example, sample, specimen; quick (ly), swift (ly), fast, rapid (ly); avoid	
Phrasal Verbs: clear up; communicate with	
Grammar: 名词从句的译法	
Reading Material: I. The Telephone and Its Inventor II. Clocks through Time	
<b>Lesson Eight</b> .....	268
Text: Transport in the Future	
Usage of Words: matter; challenge; economic, econo- mical; abrupt (ly), sudden (ly); development, evolution; large, big, great; huge, vast, immense, enor- mous, giant	
Phrasal Verbs: develop into; concentrate on (upon)	
Grammar: 分词的主要译法	
Reading Material: I. Around the World in 80 Minutes II. The Victoria Line	
<b>Lesson Nine</b> .....	307
Text: Hydroponics	
Usage of Words: stop, cease; decide, determine; area,	

region, district; produce, yield, turn  
out

Phrasal Verbs: let in; lie in; keep out

Grammar: 否定句的译法

Reading Material: I. How to Stop the Growing  
Deserts

II. Crop Irrigation without Wast-  
ing Water

**Lesson Ten ..... 349**

Text: Education of Mature Women in U.S.A.

Usage of Words: need, want; choose, select, elect,  
pick; finish, complete, accomplish,  
end, close, terminate, fulfil; plan,  
design

Phrasal Verbs: go on; go on with; help out

Grammar: 倍数的翻译法

Reading Material: I. Women in the Soviet Union  
II. Women in Ghana

**Lesson Eleven ..... 391**

Text: Finding Substitutes for Energy Resources

Usage of Words: resource, source; rely, depend; es-  
timate, compute; current, present;  
advance, progress; centre (center),  
focus, centralize, concentrate

Phrasal Verbs: result from; relate to; set to

Grammar: 长句的译法

Reading Material: I. Saving Energy by Building  
Better Houses

II. Methods of Using the Sun's



## Energy

### **Lesson Twelve** ..... 431

**Text:** A Scientific and Technological Revolution

**Usage of Words:** benefit, profit; able, capable; basic,  
fundamental; relation, relationship;  
process, procedure

**Phrasal Verbs:** rub out; bring about; lead to

**Grammar:** 文章的翻译过程

**Reading Material:** I. Transfers of Technology

II. Science, Technology and Educa-  
tion

### **Appendix: The Chinese Version and Key to the Exercises** ..... 471

# Lesson One

Text: Glass

Grammar: It 的用法和翻译

Reading Material: I. Our Eyes

II. Rubber

## Text

### Glass

Glass was discovered a very long time ago. The Roman historian Pliny<sup>1</sup> pictures one discovery this way: the crew of a Phoenician<sup>2</sup> boat landed at the mouth of a river in Syria.<sup>3</sup> The crew could not find any thing to support their kettle, so they used some pieces of nitre, from the ship. When the heat of the fire melted the nitre, it mixed with the sand under it and the mixture became liquid glass. After this discovery the glass factories at Tyre and Sidon became quite famous, and the Phoenicians learned how to blow glass. Untold years later the Romans also knew how to make glass. They made large amounts of glass and began using it for windows. They made dishes and the like out of glass, and they decorated their palaces with glass mosaics.

The Romans took the art of glass-making to the lands they ruled in Europe and the Near East.<sup>4</sup> During the Middle Ages, Constantinople was an important glass center.<sup>5</sup> When the Venetians took control of Constantinople, they sent many of the expert glassmakers back to Venice,<sup>6</sup> and Venice became very famous for its glass. The Venetians made their glass on the island of Murano, near Venice, for two reasons: to prevent the hot fires from spreading to the city and to keep the process a secret. The glassmakers were not allowed to give their knowledge of glassmaking to other cities or countries. Those who did were punished or killed.

The Venetians developed a kind of glass that was so clear it could be made into lenses.<sup>7</sup> Using this special glass it was possible to make many optical instruments. In the seventeenth century, Venetian glassmakers were taken to Paris to make mirrors for the Palace of Versailles, built by King Louis XIV.<sup>8</sup>

In the past centuries glass was shaped by blowing through a long pipe into a ball of very hot, soft, molten glass. The air could make the glass thick or thin and give it different shapes. The final shaping was done with special tools. Sometimes the glass was heated several times again before it was finally worked into the desired shape.<sup>9</sup> Today, machines and molds are used to blow and shape glass.

In the present century, safety glass was invented for use in modern cars and planes. Safety glass is made by placing a layer of plastic between two layers of plate glass. When the outside layer of glass is broken, the pieces do not scatter and injure people. Some glass of this kind is strong enough to resist bullets.

Although in recent years plastics have taken the place of glass under conditions where glass might be easily broken, there are new uses being developed for glass that were never imagined in the past.<sup>10</sup> Perhaps the greatest advantage of glass is that its raw material is not expensive and can be found all over the world.

### New Words

1. historian	[his'tɔ:riən] <i>n.</i>	历史学家；编史者
2. crew	[kru:] <i>n.</i>	全体船员，全体乘务员
3. river	['rivə] <i>n.</i>	江，河，川
4. support	[sə'pɔ:t] <i>vt.</i>	支持，支承，拥护
5. kettle	['ketl] <i>n.</i>	壶（烧水用）；水锅
6. nitre (= niter)	['naitə] <i>n.</i>	硝石；硝酸钠
7. fire	[faɪə] <i>n.</i>	火；火灾
8. melt	[melt] <i>v.</i>	融化，熔化，使熔化
melted, melted (or molten ['mɔltən])		
	<i>n.</i>	熔体，熔料；熔解量
9. mixture	['mɪkstʃə] <i>n.</i>	混合；混合物
10. liquid	['likwɪd] <i>n.</i>	液体
11. dish	[dɪʃ] <i>n.</i>	盘；碟

12. decorate	[ˈdekəreɪt] <i>v.</i>	装饰, 布置
13. mosaic	[məˈzeɪɪk] <i>n.</i>	镶嵌砖; 镶嵌细工
14. rule	[ru:l] <i>vt.</i> <i>n.</i>	统治, 支配; 规定 规则, 规章; 惯例
15. expert	[ˈekspə:t] <i>a.</i>	熟练的, 有经验的
16. spread	[spred] <i>v.</i>	传开, 蔓延; 伸展
17. secret	[ˈsi:krit] <i>n.</i> <i>a.</i>	秘密; 奥秘, 秘诀 秘密的, 机密的; 神秘的
18. knowledge	[ˈnɒlɪdʒ] <i>n.</i>	知识; 了解; 学问
19. punish	[ˈpʌnɪʃ] <i>vt.</i>	惩罚, 处罚
20. kill	[kɪl] <i>vt.</i>	杀死, 杀害, 屠杀
21. lens	[lens] <i>n.</i>	透镜; (凸凹) 镜片
22. optical	[ˈɒptɪkl] <i>a.</i>	光学的
23. instrument	[ˈɪnstrʊmənt] <i>n.</i>	仪器, 仪表, 乐器
24. mirror	[ˈmɪrə] <i>n.</i>	镜子, 反射镜; 借鉴
25. king	[kɪŋ] <i>n.</i>	国王
26. shape	[ʃeɪp] <i>vt.</i> <i>n.</i>	使成形, 使具有...形状 形状
27. pipe	[paɪp] <i>n.</i>	管子
28. ball	[bɔ:l] <i>n.</i>	球; 球状物
29. soft	[sɒft] <i>a.</i>	柔软的, 柔和的; 悦耳的
30. thick	[θɪk] <i>a.</i>	厚的; 浓厚的; 粗大的
31. thin	[θɪn] <i>a.</i>	薄的; 瘦的; 稀薄的
32. final	[ˈfaɪnəl] <i>a.</i>	最后的; 结局的; 告终的
33. mold	[məʊld] <i>n.</i>	模型
34. modern	[ˈmɒdn] <i>a.</i>	现代的; 现代化的; 时髦 的
35. layer	[ˈleɪə] <i>n.</i>	层, 夹层
36. scatter	[ˈskætə] <i>v.</i>	散开, 扩散

37. injure	[ˈɪndʒə] vt.	伤害, 损害, 损伤
38. resist	[rɪˈzɪst] vt.	阻挡, 反抗, 抵制
39. bullet	[ˈbʊlɪt] vt.	子弹
40. advantage	[ədˈvɑːntɪdʒ] n.	优点; 效益

## Phrases and Expressions

1. this way	这样
2. at the mouth of	在...之口
3. a lump of	...块
4. mix ... with	与...混合
5. large amounts of	大量的
6. and the like	等等
7. out of	从...中, 出自; 越出...外, 失去, 缺乏
8. take control of	管理, 管辖, 控制
9. be famous for	因...而出名
10. make ... into	把...制成

## Proper Nouns

1. Roman	[ˈrəʊmən] n.	罗马
	a.	罗马的, 古罗马的
2. Pliny	[ˈplɪni]	蒲林尼 (罗马学者)
3. Phoenician	[fiˈniʃən]	腓尼基人
4. Syria	[ˈsɪriə]	叙利亚
5. Tyre	[taɪə]	泰尔 (在今黎巴嫩)
6. Sidon	[ˈsaɪdn]	希登 (黎巴嫩西南一港 埠)

7. Constantinople [kɒnstæntiˈnəʊpl] 君士坦丁堡(土耳其港市)

Notes

1. Pliny (23—79): 普林尼, 古罗马作家及政治家。公元79年8月维苏威火山爆发时, 他亲自前去救援和调查, 中毒窒息而死。著有哲学、历史、修辞学等多种著作。现仅存一部百科全书《自然史》, 共37卷。
2. Phoenician: 腓尼基人; 公元前3000年定居在腓尼基 (Phoenicia, 地中海东岸的古国, 约当今黎巴嫩和叙利亚的沿海一带) 主要集中在乌加里特 (Ugarit), 比布鲁斯 (Byblos), 西顿 (Sidon) 等地区。在古代, 腓尼基人以航海和经商 (包括贩运奴隶) 而闻名。公元前1200年至800年, 是其鼎盛时期, 贸易遍及地中海沿岸各国。约在公元前十三世纪时腓尼基人主要依据古埃及文字制定了历史上第一种书写字母, 共22个 (无元音)。它们是希腊、罗马 (拉丁) 以及后世其它西方的字母的起源。
3. Syria: 叙利亚, 国名, 即今阿拉伯叙利亚共和国, 位于西南亚西部。现在的面积是185,680平方公里, 人口为870.5万 (1976年), 80%是阿拉伯人。首都大马士革。
4. the Near East (近东): 指离欧洲较近的东方地区, 过去指巴尔干诸国和奥托曼 (即今土耳其) 帝国, 现在指中东地区 (西南亚及东北非各国), 是欧、亚、非三洲的交通枢纽, 战略地位非常重要。
5. Constantinople: 君士坦丁堡; 今称伊斯坦布尔, 是东罗马帝国的故都。  
Middle Ages: 中世纪, 指欧洲史约自5世纪末至15世纪中叶的时期。
6. Venice: 威尼斯, 位于意大利东北部亚得里亚海岸。公元六世纪时属东罗马帝国, 十世纪末建成商业共和国, 领土有亚得里亚海

东北岸大片地区。1866年并入意大利王国。现为意大利重要海港。

7. The Venetians developed a kind of glass that was so clear it could be made into lenses:

① developed 在此当“研制”讲。

② ...so clear it could be...: it 前省掉了 that。so...that 引起状语从句，修饰 clear，说明其程度。

8. the Palace of Versailles: 凡尔赛宫，法国封建时代帝王的行宫，在巴黎市西南凡尔赛城。始建于十六世纪，至十八世纪形成现存规模，包括宫前大花园、宫殿和放射形大道三部分。其规模与风格曾被当时欧洲其它王宫所模仿。1919年凡尔赛和约签订于此。

Louis XIV: 路易十四，法国国王（1643—1715在位）。即位时才5岁，由其母安娜（Anne）摄政，首相马萨林掌握实权。1661年亲政后，加强专制统治，强化中央集权。晚年参加西班牙王位继承战争，持续十余年，国库因而空虚，农民起义此起彼伏，法国封建专制制度开始走向没落。

9. worked into 在此作“制成”讲。
10. 这是一个复杂的句子。Although...broken 是让步状语从句，其中 where 引出定语从句，修饰名词 conditions。there are...in the past 是主句，其中分词短语 being developed for glass 是修饰 uses 的定语；that 所引出的从句也起定语作用，修饰 uses 而不是修饰 glass，that 在此是关系代词，在从句中作主语，因此，谓语用复数形式 were。

全句可译为：“虽然近年来由于玻璃在有些情况下容易打破而为塑料所代替，但现在正在研究过去从未想象的玻璃的新用途”。

## Usage of Words

bring

take

get

carry



在表示“带”、“拿”这些概念时，这几个词含义不同。

**bring** 表示从别处把某物“拿来”或把某人“带来”。例如：

- a. *Bring the book when you come next time.*

你下次来时，请把书带来。

- b. *Wars of any kind bring man suffering and pain.*

不论何种战争都会给人类带来痛苦和灾难。

**take** 表示把东西“拿去”或把人“带走”，方向与 **bring** 正好相反。例如：

- a. *He took the material with him when he left.*

他走时，把资料带走了。

- b. *The Romans took the art of glass-making to the countries they ruled.*

罗马人把玻璃制造工艺带到了他们统治的国家。

**get** 指到别处去把东西“弄来”或把人“找来”。例如：

- a. *Get me something to eat, I am hungry.*

给我弄点吃的来，我饿了。

- b. *Will you please get Comrade Liu for me?*

劳驾把刘同志给我找来好吗？

**carry** 含有负重、搬运的意思，不指明固定的方向。例如：

- a. *The great ship carried 1,500 passengers.*

这条大船运载了一千五百名乘客。

- b. *A car carried him to the station.*

一辆小汽车把他送到火车站。

- c. *He carried the child in his arms to the hospital.*

他抱着孩子到医院去。

**material**

**matter**

**substance**

作“物质”讲时，这三个词意思相近。

**material** 指制造、编写等所需的资料或材料。例如：