

英语速读

棉纺专业

英 语 选 读

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为什么语言要学，并且要用很大的气力去学呢？因为语言这东西，不是随便可以学好的，非下苦功不可。

入门既不难，深造也是办得到的，只要有心，只要善于学习罢了。

要自学，靠自己学。

中国人民有志气，有能力，一定要在不远的将来，赶上和超过世界先进水平。

前 言

1. 本书分选读和语法二部分。

选读部分是供阅读和翻译用的教材。全部节选自英国出版的一些科学读物编注的。一共8篇。前6篇是按棉织专业生产工艺顺序排列的。并非按文章的难易编排。后2篇是介绍棉纺工业新技术——气流纺纱。每篇选读后都有详细注释。注释包括专业词汇（不包括一般词汇）、专业术语、常用词组和短语以及语法上的一些难点。

2. 本书语法部分分6个专题编写。主要根据工农兵学员在阅读和翻译时经常遇到的一些难点，从英译汉的角度，着重介绍科技英语翻译方面的一些初步知识。仅仅是部分的，并不全面。同学们在翻译本书“选读部分”材料时可根据需要分别参考这6个专题内容。文中的例句，尽量结合专业。有的选自选读部分8篇材。

语法部分的6个专题内容也可供工农兵学员在今后阅读和翻译科技英语时参考。

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1. The Textile Fibre (I)

Important Properties of Fibres

Considering¹ the individual fibres, as distinct from² yarns and fabrics made from them, the following properties are of³ importance:

- (1) shape---length, thickness⁴, shape of cross-section⁵, straghtness;⁶
- (2) strength;⁷
- (3) extensibility⁸ and elasticity;⁹
- (4) softness;¹⁰
- (5) plassticity;¹¹
- (6) solubility in aqueous and organil solvents;¹²
- (7) general durability;¹³
- (8) lustre;¹⁴
- (9) density.¹⁵

Also important is the manner in which some of these properties are affected by wetting.¹⁶

Useful properties of another kind desired in a textile fibre are indicated below:

- (10) behaviour towards dyes;¹⁷
- (11) resistance to deteriorating influences,¹⁸ including:(a) light, particularly sunlight; (b) heat; (c) bacteria, mildew, fungi, and moths and various destructive insects;¹⁹ (d) wet or damp conditions;²⁰ (e) abrasion and wear;²¹ (f) corrosive chemicals;²² (g) creasing.²³

It is useful to discuss²⁴ some of the properties

enumerated above so that the usefulness of the various textile fibres may be better understood.

1. Fibre Extensibility

Most fabrics in everyday wear are subject to²⁵ stretching²⁶ or distortion²⁷ from time to time. Generally, we expect a fabric or garment²⁸ which has been stretched to return to its original size and shape after relaxing.²⁹ To a considerable degree³⁰ this elasticity is decided by the structure of the fabric. The extensibility and elasticity of the individual fibres, however, plays a part in³¹ the manufacture of yarns and fabrics.

The extent to which a fibre will stretch is roughly proportional to³² the stretching force.³³ This property varies a great deal among fibres. For example, a wool fibre can be easily stretched 10 per cent, whilst³⁴ a cotton fibre will break before stretchings per cent. Viscose rayon and acetate³⁵ fibres stretch easily up to³⁶ 20 percent and some of the special forms of the synthetic fibres nylon and Vinyon can be stretched up to 100 per cent without breaking.

There is no fixed standard of extensibility for a textile fibre since, in general, the manufacturing conditions can be adjusted to suit any

particular fibre. But it is essential that a fibre must have a certain amount of extensibility so as to³ withstand sudden strains placed upon it.

2. Fibre Density

The density of fibre is an important characteristic. The lower the density the greater is the volume of fibre for any given weight.⁷ With Yarns made of low-density fibres it is possible to produce woven and knitted fabrics having a full, solid appearance more cheaply than with more dense fibres. Cotton fibres has the high density of about 1.50 as compared with⁴⁰ wool fibres having a density of about 1.33; polythene⁴¹ fibres have the very low density of about 0.92, so that they float on water while the industrial fibre polytetrafluoroethylene⁴² has the exceptionally⁴³ high density of about 2.2.

Notes 注 释

1. considering 是动词 consider 的现在分词
2. distinct from 和.....不同。
3. are of 具有
4. thickness [θɪknis] n. 厚度
5. cross section 横切面。横断面
6. straightness ['streɪtnɪs] n. 伸直度
7. strength 强度
8. extensibility [ɪkstensə'bɪləti] 伸长性。延展性
9. elasticity [elæ'stɪsɪti] n. 弹性
10. softness ['sɒftnɪs] n. 柔软(性)
11. plasticity [plæ'stɪsɪti] n. 可塑性, 粘性
12. solubility in aqueous and organic solvents,
在水和有机溶剂里的溶解度
13. durability [dʒʊərə'bɪləti] n. 耐久性, 耐用性
14. lustre [lʌstə] n. (纤维或织物的)光泽, 亮光
15. density 密度
16. wetting [wetɪŋ] 是动词 wet 的动名词
17. behaviour towards dyes 染色的特性
18. resistance to deteriorating influence
耐老化
19. bacteria, mildew, fungi, and moths and various
destructive insects, 细菌, 霉, 菌类
和蛀虫以及各种有害的昆虫, (这里 fungi 是
fungus 的复数)
20. wet or damp conditions 潮湿的条件
21. abrasion and wear 磨损
22. corrosive chemicals 腐蚀性的化学制品

23. creasing 折痕, 皱纹
24. usefulness n. 有用, 有益
25. (are) subject to... 受到..., 经受...
26. stretching 伸长
27. distortion [dis'tɔ:ʃən] 扭变
28. garment ['gɑ:mənt] 衣服
29. relaxing 放松
30. to a considerable degree 在相当大的程度上
31. play a part in 在...起作用
32. proportional to ... 和...成比例的, 和...相称的
33. stretching force 拉力
34. whilst [waɪlɪst] = while
35. viscose rayon and acetate 粘胶人造丝和醋脂纤维
36. up to..., 直到...
37. so as to 以便, 为了要
38. The lower the density the greater is the volume of fibre for any given weight 这里的 lower, greater 是形容词 low, great 的比较级。句子的意思是: 对任何一定重量的纤维来讲, 密度越低, 它的体积越大。下面例句也是这种结构:
The harder you work, the greater progress you will made. (你越用功, 进步就越大)
39. as compared with... 和...比起来
40. polythene=polyethylene ['pɒliəi:n] 聚乙烯
41. polytetrafluoroethylene 聚四氟乙烯
42. exceptionally [ɪk'sepʃənli] adv. 例外地, 特殊地

2. The Textile Fibre (II)

The Properties of Cotton Fibre

Textile fibres are of interest to everyone, for they play a most important part in civilised life as we know it today.

Cotton is the most widely used fibre, being fine, strong, cheap and easily dyed. Cotton fibre is used in inner wear, outwear, accessories and decorative materials in the home and in industry.

Each cotton fibre is from $3/4$ to $1\frac{3}{2}$ inch in length and its diameter varies slightly from one end to the other but averages $1/1000$ in. Usually a long fibre is correspondingly finer. From the viewpoint of cotton manufacture, the finer and longer the fibre the more suitable it is for making high-quality materials.

Each cotton fibre weighs about $1/40,000,000$ Oz., so that in 1 lb. of cotton there are about $160,000,000$ cotton fibres. If these fibres were placed end to end they would extend for about 2,500 miles. The finer cotton fibres have more twists per inch than the coarser fibres. All these points about the shape and character of cotton fibre are of importance in the manufacture of cotton threads and fabrics.

Notes

1. are of interest to ..., 对... (采说) 是有意义的
2. play (a most important) part in...
在.....方面起(最主要的)作用
3. the most widely used fibre 最广泛被使用的纤维。
这里 "the most widely used" 是修饰
"fibre" 的, 作定语用
4. inner wear 内衣
5. out wear 外衣
6. accessories [æk'sesəriz] n. 附件
7. decorative materials 装饰品
8. 3/4 的读法: three quarters,
1 1/2 的读法: one and a (or one) half
9. varies (slightly) from..., (稍) 不同于.....
10. averages 1/1,000 in. 平均千分之一英寸 "in."
是 inch(英寸)的缩写形式
11. from the viewpoint of, 从.....观点(采看),
12. the finer and longer the fibre the more
suitable it is for making high-quality
materials, 越是优质、长的纤维, 越适合于制成高质量
的(纺织)材料,
13. OZ 是 ounce [auns] (盎司,)的代号。是英
制重量单位。
14. 1 Lb 1磅 Lb 是 pound [paund] (磅)代号
复数为 lbs 是英制重量单位 16ounces=1 lb
15. 基数词 160,000,000 读法 one hundred and sixty
million.
16. extend for... 延长, 伸长

3. The Production of Cotton Yarns (I)

The first stage in the production of a fabric from fibres is to clean and mix them thoroughly.¹ The fibres are then generally straightened,² but for the production of certain types of fabric they must be brought into³ a condition in which they are all parallel. The fibres are next drawn out⁴ into the form of roving,⁵ which resembles a loose rope.⁶ More drawing and twisting⁷ produces a finer roving which is still further drawn and twisted into Yarn. The yarn is used to produce fabrics by either knitting or weaving.⁸

Now we deal in⁹ some what more detail with¹⁰ the processes and machines used for producing yarns from cotton. These processes consist of¹¹ opening,¹² carding, drawing, roving and spinning, with combing in the case of¹³ fine yarns, performed between the carding and drawing stages.

I. Opening and Cleaning

Opening and cleaning are the first operation. These take place¹⁴ in the opening and blowing rooms¹⁵ of the mill. The cotton arrives at¹⁶ the spinning mill¹⁷ tightly packed in a bale. It is necessary to blend together a number of¹⁸ bales to insure a uniform product. The fibres are cleaned of¹⁹ leaves, dust and so forth.²⁰ Then the machine continues the

loosening²¹ and cleaning of the fibres until forms them into²² a continuous sheet called a lap.

A number of machines are used. The chief ones²³ are hopper balebreakers, hopper bale openers,²⁴ hopper feeders, and scuthers.²⁵

II Carding

The carding process converts the lap into²⁶ a sliver or strand of fibres.²⁷ During carding, the fibres are well separated by²⁸ the action of wire points,²⁹ and a high proportion of the trash³⁰ is rejected, together with³² some good lint. The carding machine consists of two cylinders³³ covered with card clothing.³⁴ The fibre Lap is fed between the two cylinders, which³⁶ straightens the fibres and forms them into a thin filmy sheet.³⁷ This sheet is then narrowed³⁸ to the form of a thick loose rope called a card sliver³⁹ which then is coiled⁴⁰ into tall narrow cans.

III Combing⁴¹

If the cotton is to be made⁴² into very fine yarns, it is advisable to subject the sliver from the draw-frame⁴³ to a combing operation.⁴⁴ The machines used in cotton industry for this purpose are highly intricate machines. Not only do they comb the cotton sliver by means of fine needles but at the same time they remove the shorter fibres and leave the cotton

much more uniform as regards the lengths of the fibres of which it is composed.⁴⁵ The spinning of fine yarns would be difficult if the cotton were made up of a mixture⁴⁶ of long and short fibres,⁴⁷ and since fine yarns are better spun from long fibres it is arranged that the short ones are removed in combing.

1. to clean and mix them thoroughly
是动词不定式短语。在句中作表语。
2. are (then generally) straightened 是动词
straightened [streɪtn] (伸直, 整直) 的被动态形式
then generally 中的 then 指时间, 即 after
first stage,
3. be brought into 是短语 bring into (产生, 实
现) 的被动形式。
4. are (next) drawn out 是短语 draw out
的被动形式 意思是: 引出, 抽出
5. roving 粗纱
6. which resembles a loose rope 这是一个由关系代词
which 引出的定语从句, 修饰 roving.
7. drawing and twisting 并条(牵伸)和加捻,
8. knitting 针织, weaving 机织
9. deal in detail with 详细的论述(讨论)。
10. some what 可写成 somewhat 意即“稍微, 有点”,
in some what more detail: 稍比较详细地
11. consist of 包括, 含有
12. opening 开棉
13. in (the) case of..... 在.....情况下, 要是.....
14. take place 发生, 产生。
15. Opening and blowing rooms 清棉间
16. arrives at (in) 到达
17. Spinning mill 纺纱厂
18. a number of 许多
19. (are) cleaned of (被)除去.....
20. so forth 等等 相同时的说法还有 so on, etc

21. loosening 开松
22. form (them) into..... 使.....形成.....
23. ones 这里 ones 代替 machines
24. hopper bale breakers 棉箱松包机
 hopper bale openers 棉箱开棉机
 hopper feeders 棉箱给棉机
25. scouter ['skʌtə] n. 清棉机
26. convertinto 把...变成...,把...转化为...
27. strand of fibres strand sliver的另一种
 说法, strand 的意思是“单股”。
28. are well separated by..... 很好地被...分开
29. the action of wire points 钢丝尖端的作用。
30. a high proportion of 大部分
31. trash [træʃ] n. 杂质
32. together with 与...一起
33. cylinder ['sɪlɪndə] n. 锡林
34. cardclothing 针布
35. 这里的 which 是关系代词。代 two cylinders
36. a thin filmy sheet 一张薄膜似的薄片
37. is (then) narrowed 是动词 narrow 的被动语态形式。
38. card sliver 粗梳条子。生条
39. is coiled 是动词 coil [kɔɪl] (并条)的被动形式
40. combing 精梳
41. to be made 是动词不定式 to make 的被动态形式
 to be made into very fine yarns (要制成优质纱)
 叫做“动词不定式的被动语态。”在句中做表语。
42. draw-frame 并条机
43. combing operation 精梳操作
44. "Not only dowhich it is composed."