

(b) Quilled Bark.

Santen.....	0.77—Mean of five analyses.
Michaelis.....	2.01
Dolondro.....	1.30
Soubeiran.....	2.13
Reichardt.....	0.69

Average..... 1.33

II. CINCHONA RUBRA—(Red Bark).

I. CINCHONA SUCCIRUBRA.

Santen.....	0.29—Mean of seven analyses.
Polletier & Caventou	1.70
Michaelis.....	0.83
Duflos.....	2.34
Henry.....	1.66
Pfaff.....	0.30—Mean of many analyses.
Reichardt.....	0.95

Average..... 1.12

III. CINCHONA PALLIDA—(Pale Bark).

1. CINCHONA CONDA-MINEA—(Loxa Bark).

Michaelis.....	0.10
Santen.....	0.70
Winckler.....	0.43
Bucholz.....	0.00
Howard.....	0.00

Average..... 0.24

{ 2. CINCHONA NITIDA—(Lima Bark).

{ 3. CINCHONA MICRANTHA—(Coarse, or Grey Lima).

Howard.....	0.24
Geiger.....	0.29
Von Santen.....	0.00
Delondre.....	0.15
Michaelis.....	0.39

Average..... 0.21

NON-OFFICIAL BARKS.

Of barks which are not official in the British or U. S. Pharmacopœias, the following classification may be made :

(a) Pitaya Bark (*Calisaya Pitayensis*)—

Delondre and }	1.50
Bouchardat }	1.86
Weightman.....	1.40
".....	2.10

Average..... 1.71

(b) Bogota, or Fibrous Carthagena Bark (*Cinchona Lancifolia*)—

Karsten.....	1.55
Henry.....	1.55

(c) Carabaya Bark (*Cinchona Ovata* var. *Rufineris*)—

Delondre and }	0.90
Bouchardat }	1.34

Average..... 1.12

(d) Red Bark of Cusco (*C. Scrobiculata* var. *Delondriana*)—

U. S. P..... 0.24

(e) Heavy Carthagena Bark, Santa Martha (*Cinchona Cordifolia*)—

Von Bergen..... 0.23

(f) Maracaibo Bark—

Delondre and }	0.15
Bouchardat }	0.22

Average..... 0.18

(g) Jaen Bark (*Cinchona Ovata*)—

Geiger.....	0.05
Michaelis.....	0.58
Howard.....	0.00
".....	0.00

Average..... 0.15

(h) Cusco, or Arica Bark (*Cinchona Pubescens*)
Trace of quinia.

IX.—The subjoined answer to this question is given by W. A. C., Orono.

ACACIA.—The most common varieties of this drug are the Turkey, Barbary, Senegal, Indian, Cape and Australian gum.

1.—TURKEY GUM—is obtained from *Acacia Arabica*, *Acacia Vera*, and probably other species of *Acacia*. It is procured chiefly from Egypt, Nubia, Kordofan and Darfur. We obtain it chiefly from Smyrna, Marsoilles, or some other entrepot of the Mediterranean commerce. Two varieties are noticed one more or less coloured, the other white, in tears, and is the variety with which druggists are generally supplied, this is the best variety met with in commerce.

2.—BARBARY GUM—derived from *A. Vera* and *A. Gumifera*, is obtained from Barbary and Mogador, is very inferior, dark and mixed with impurities.

3.—SENEGAL GUM—is derived from *A. Vera* and *A. Senegal*. St. Lewis, at the mouth of the Senegal, and Portendic, export this variety. It is imported into the United States chiefly from Bordeaux, is consumed largely in France; is in large peices, yellowish or reddish.

4.—INDIAN GUM—is derived from *A. Arabica* and probably other species of *Acacia*; imported from the Indies, is very rough externally, with many impurities.

5.—CAPE GUM—imported from the Cape of Good Hope, collected probably from *A. Karroo* or *A. Horrida*; is of a pale yellowish colour, in tears or fragments, of an inferior quality.

6.—AUSTRALIAN GUM—imported from South Australia, is in peices, elongated or globular, rough and wrinkled upon the surface, of a violaceous tint.

X.—Opium in solution is incompatible with the alkalies and their carbonates; most metallic salts, as the acetate of lead, nitrate of silver, salts of copper, zinc, and iron; and with tannic and gallic acids, and astringent infusions.

Notes and Queries.

MR. CARRE, of Meaford, writes:—"Did you ever use a tool, somewhat like a carpenter's chisel, for reducing stiff extracts and masses? The pestle and mortar are nowhere beside it; and with a stout pill-knife, having the round part of the end cut off square, and ground on both sides to an edge, you can thoroughly clean the slab, as well as blend the mass most effectually. I always cut my pill-knives so, and would now feel lost without them. This is a trivial matter, and yet I have met some who were not aware of the pleasure with which you can accomplish what is often a rather tedious operation without it."

J. S. Allan.—We have sent by mail the catalogues of medical and scientific works for which you enquire, and shall be happy to procure any books you may require.

E. S. P.—METALLIC ANTIMONY.—The ordinary black antimony of commerce, is a sulphide, and does not occur, in nature, in the form in which we usually see it, but is prepared from the native sulphide—a mineral found chiefly in Hungary, Saxony, Scotland, and at Cornwall, in England. The sulphide is separated from the matrix by fusion, and is cast into blocks of six or eight inches in height, by about half that width. It may be reduced to the metallic form by mixing eight parts of the powdered sulphide with six parts of cream of tartar, and three parts of nitro; and throwing the mixture in small portions into a red hot crucible. The heat must be maintained until perfect fusion. The yield will be about 70 per cent. of the sulphide employed. Metallic antimony fuses at 800 F.; it possesses a silvery lustre, and always exhibits evidence of crystallization. A metal for taking sharp impressions, such as you require, may be made by fusing together antimony 25 parts, lead 70 parts, and tin 5 parts. This is the usual composition of type foundry's metal.

Assistant wants to know what studies he must pursue in order to qualify himself for his business. We have already treated this subject, at length, in previous numbers of the journal, but may now briefly say that as a basis, a thorough English education is necessary; the student should also possess some knowledge of Latin. The special branches of study are chemistry, materia medica, and botany. For chemistry, either Fownes or Roscoe, may be selected; materia medica—Pareira, Garrad, or Royle; botany—Gray or Bentley. A careful study of these works, and due attention to shop duties, if continued for a few years, cannot fail to make a good druggist.

Member.—TESTING OF CHLOROFORM.—There is no test of the purity of chloroform which is

ORDER OF MERIT.

Number of Marks awarded for Answers.

QUESTIONS—	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	Total.
1. W. M. Rose.....	0	10	7	10	10	10	10	6	8	10	81
2. W. A. C., Orono.....	10	10	9	8	10	8	10	2	10	7	79
3. Price Jackson, Eglinton..	5	10	8	10	5	10	10	2	8	8	76
4. E. B. Borland.....	9	10	3	7	5	8	0	2	6	10	63
5. Oxyglen, Toronto.....	7	10	8	7	0	8	0	2	3	10	55
6. J. J. Hall, Woodstock.	0	10	9	0	5	10	0	0	10	7	51
7. J. S. Allan.....	0	10	0	5	0	10	0	0	10	1	43