

APPENDIX

The following methods of reducing Sterling to our currency, at different rates of Exchange, will often be found convenient:—

At 1.09½. RULE.—Reduce the amount in Sterling to currency at \$4 to the £1, and to that result add the aliquot parts for 86½ cents, viz., ¼ for 80 cents and ⅙ of that for 6½ cents; the result is the amount in our currency.

EXAMPLE.

Reduce £84 13 9 Sterling to our currency @ 1.09½.

$$\begin{array}{rcl}
 & 4 & \\
 \hline
 336 & = & \text{value of } £84 @ \$4. \\
 2.75 & = & \text{,, } 13s. 9d.—i.e., 10s. = \$2, \text{ and } 3s. 9d. = 75 \text{ cents.} \\
 \frac{1}{4} & \hline
 338.75 & = & \text{,, } @ \$4 \text{ per } £1. \\
 \frac{1}{6} & \hline
 67.75 & = & \text{,, } @ 80 \text{ cents.} \\
 & \hline
 5.65 & = & \text{,, } @ 6\frac{1}{2} \text{,, nearly.} \\
 \hline
 \$412.15 & \text{Ans. to the nearest cent.}
 \end{array}$$

In the above example, and all others of the same kind, the value @ 6½ cents represents the premium @ 1½ per cent., and, consequently, the value @ 1.10 may be found by merely adding to the value @ 1.09½, ⅙ of the value @ 6½ cents, as found above.

At 1.10. RULE.—To the value @ \$4 per £1 add ⅙ of the same repeated twice; the result is the value in our currency.

EXAMPLE.

Reduce £76 19 4 to our currency @ 1.10.

$$\begin{array}{rcl}
 & 4 & \\
 \hline
 304 & = & \text{value of } £76 @ \$4. \\
 3.87 & = & \text{,, } 19s. 4d.—i.e., 15s. = \$3, \text{ and } 4s. 4d. = 87 \text{ cents.} \\
 \frac{1}{6} & \hline
 307.87 & = & \text{,, } \$4. \\
 & \hline
 34.21 & = & \text{,, } \$\frac{1}{3}. \\
 & \hline
 34.21 & = & \text{prem. @ 10 per cent.} \\
 \hline
 \$376.29 & \text{Ans. @ 10 \% prem. or 1.10.}
 \end{array}$$

When Sterling is reduced @ 1.10 by the last method, the value at almost any other rate is easily obtained. For example,

Reduce £420 7 8 @ 1.09½—i.e., ⅙ less than 1.10.

$$\begin{array}{rcl}
 & 4 & \\
 \hline
 \frac{1}{6} & \hline
 1681.53 & @ & \$4. \\
 & \hline
 186.836 & @ & \$\frac{1}{3}. \\
 \frac{1}{6} \% = \frac{1}{6} & \hline
 \text{of } 186.836 & \text{prem. @ } 10 \% & \\
 \hline
 2055.202 & @ & 1.10. \\
 & \hline
 2.335 & \text{subtract } \frac{1}{6} & \text{of } 10 \% = \text{value @ } \frac{1}{6} \% \\
 \hline
 \$2052.87 & \text{Ans. @ } 1.09\frac{1}{2}.
 \end{array}$$

To get ⅙, divide by 8, and set the figures one place to the right.

Reduce £735 7 10½ @ 1.10½.

$$\begin{array}{rcl}
 & 4 & \\
 \hline
 \frac{1}{6} & \hline
 2941.575 & @ & \$4. \\
 & \hline
 326.841 & @ & \$\frac{1}{3}. \\
 \frac{1}{6} & \hline
 326.841 & \text{prem. @ } 10 \% & \\
 & \hline
 16.342 & \text{,, @ } \frac{1}{6} \% & \\
 \hline
 \$3611.60 & \text{Ans. @ } 1.10\frac{1}{2}.
 \end{array}$$