

To turn any given Currency into any Currency required.

Rule 1. Let the value of the Spanish Dollar be expressed in Shillings, or Pence, in each of the Currencies, writing them in form of a Fraction, and making the $\left\{ \begin{array}{c} \text{required} \\ \text{given} \end{array} \right\}$ Currency the

Numerator $\left\{ \begin{array}{c} \text{required} \\ \text{given} \end{array} \right\}$ of the Fraction.
Denominator

Reduce this Fraction to its *least terms*, and it will serve as a constant Multiplier, by which any sum of the *given* Currency being Multiplied, it will be converted into the Currency required.

N. B. When the Fraction is not an improper one the *Multiplier* will become a Divisor.

Examp. To form a rule for changing Sterling at 4/6. pr. Dollar into New-York at 8/ pr. Dollar.

Here *Sterling* is *given*, and *York* *required*: The Dollar in $\left\{ \begin{array}{l} \text{York is } 8/ \text{ or } 96 \text{ Pence Numerator,} \\ \text{Sterling } 4/6. \text{ or } 54 \text{ Pence Denominator.} \end{array} \right.$

Therefore $\frac{96}{54}$ is the Multiplier sought, which reduced to its least terms becomes $\frac{16}{9}$ or $1\frac{7}{9}$, therefore if Sterling be multiplied by 16 and divided by 9 the result will be York, thus. $\frac{16}{9}$ is the same as 2 into $\frac{8}{9}$, but $\frac{8}{9}$ is the same as 1 less $\frac{1}{9}$, therefore 2 into $\frac{8}{9}$ is equal to 2 into 1 less $\frac{1}{9}$, which is that Rule, expressed shorter thus, $\frac{16}{9} = 2 \times \frac{8}{9} = 2 \times 1 \frac{1}{9}$.

Tot urn sterling into	$\left\{ \begin{array}{l} \text{Currency or Halifax, add } 11-9 \\ \text{Army, add } 1-27 \end{array} \right.$
Currency into	$\left\{ \begin{array}{l} \text{Sterling, deduct } 1-10 \\ \text{Army pay, deduct } -15 \end{array} \right.$
Army pay into	$\left\{ \begin{array}{l} \text{Sterling, deduct } 1-28 \\ \text{Currency, add } 1-14 \end{array} \right.$
A Half Joe is	£ 1 16 0 sterl. 2 0 0 cur. 1 17 4 army
A Guinea is	1 1 0 1 3 4 1 1 9
A Dollar is	0 4 6 0 5 0 0 4 8