64. Value of 1 oz. $=934\frac{1}{2}$d. $\therefore$ gold valued at (1869×240)d. weighs 480 oz., or 40 lb. Troy.

65. 66, page 238.

66. The price of the mixture is $37\frac{5}{16}$c. per lb. They must be mixed in ratio of $2\frac{5}{16}$ to $2\frac{1}{16}$ (page 128).

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67. 37, page 151.

68. Let \$100 = cost. $\therefore$ \$70 = new cost. $2\frac{1}{2}$ times the gain on \$70 $=1\frac{3}{4}$ times the gain on \$100. $\therefore$ \$100 + gain on \$100 = \$70 + $1\frac{3}{4}$ times the gain on \$100. $\therefore$ $\frac{3}{4}$ of gain on \$100 = \$30. $\therefore$ rate of gain $=40\%$.

69. It costs \$2·80 + ·20c. + 6·3c. or \$3·063 to buy 1 cwt. of flour. Com. on sale of apples is $\frac{3}{100}$ of amount of sale, or $\frac{3}{97}$ of amount left to buy flour. $\therefore$ com. on sale of apples, sufficient to buy 1 cwt. of flour, is $\frac{3}{97}$ of \$3·063. $\therefore$ total com. when 1 cwt. is bought $=1\frac{53}{97}$c. Hence no. of cwt. bought $=\$63+1\frac{53}{97}$c.

70. Vol. of plate in cu. in. $=4\times 4\times\frac{22}{7}\times 2$. Vol. of shot $=\frac{4}{3}\times\frac{22}{7}\times(\cdot 05)^3$.

71. The eagle (\$10) contains $\frac{258}{480}\times\frac{9}{10}$ oz. pure gold. But $\frac{1}{2}\frac{1}{2}$ oz. of pure gold is valued at $\frac{1869}{2}$d. $\therefore$ $\frac{258}{480}\times\frac{9}{10}$ oz. is valued at $(\frac{1869}{2}\times\frac{12}{11}\times\frac{258}{480}\times\frac{9}{10})$d. $\therefore$ 240d., or £1 = \$4·866+, which is very nearly $109\frac{1}{2}\%$ of \$4·44$\frac{4}{9}$.

72. He gives 35·28 in. for 90% of M. P. per yd. $\therefore$ he gives 36 in. for $91\frac{41}{49}\%$ of M. P. per yd. $\therefore$ he could give a disct. of $8\frac{8}{49}\%$.

73. \$1200 amounts to \$1389·15 in 3 yr., or to $\frac{23161}{20000}$ of the prin. $\therefore$ the amt. in one year is $\frac{21}{20}$, or 1·05 of the prin.

74. Page 129.

75. 27, page 200.