EIGHTH DEPARTMENT.

PAPER XXVII.

251. A man's income is derived from the proceeds of \$2275 at a certain rate per cent, and \$2710 at 1% more than the former rate. His whole income is \$453. What are the rates ?

262. A boy can split a cord of wood in 3 hours and pile a cord in 45 minutes. How long will it take him to split and pile 6 cords?

263. The time occupied by a train 352 yards long, going at the rate of 40 miles an hour, in crossing a bridge is 50 seconds. Find the length of the bridge.

264. A man sells goods for \$1125. Half he sold at an advance of 25% on the cost, $\frac{2}{5}$ at an advance of $12\frac{1}{2}$ %, and the remainder at $\frac{1}{2}$ of the cost. What did he pay for the goods?

265. Equal weights of gold and silver are in value as 20 to 1, and equal volumes are in value as 1284 to 35. A certain volume is composed of equal weights of gold and silver. Find how many times more valuable the same volume would be well, it composed wholly of gold.

266. A person buys a horse upon borrowed money, for which he pays 6% per annum. The horse earns 70 cents a day and costs $\frac{1}{2}\%$ of his purchase price for daily keeping. The owner sells him at the end of a year for \$50 and realizes \$132.40 upon the whole transaction. What did the horse cost?

267. A man owns a horse and a saddle; $\frac{1}{4}$ of the value of the horse is equal to 4 times the value of the saddle; the horse and saddle together are worth \$170. Find the value of each.

268. By selling an article for \$21 I lost $12\frac{1}{2}\%$. At what price should I have sold it in order to gain $12\frac{1}{2}\%$?

269. The pendulum of one clock makes 24 beats in 26''; that of another 36 beats in 40''. If they start at the same time, when first will the beats occur together?

270. What is the market price of 5% bank stock which yields 6% interest after an income tax of 3% has been paid?