

The above quantities at \$1.50 a cord, \$2.50, \$3.50, \$4.50, \$1.25, \$1.75, \$2.25, \$2.75, \$3.25, \$3.75, \$4.25.

4 x 4 x 12 ft at \$2 a cord, 20 ft., 28 ft., &c., up to 76 ft.

The above quantities at the various prices.

4 x 4 x 10 ft. at \$2 a cord, 18 ft., 26 ft., &c., up to 74 ft.

The above quantities at the various prices.

4 x 4 x 14 ft. at \$2 a cord, 22 ft., 30 ft., &c., up to 78 ft.

### EXERCISE VI. THE CLOCK.

(a). At what time will the hour-hand and the minute-hand be together between 1 and 2 o'clock? At what time between 2 and 3 o'clock? Between 3 and 4 o'clock? &c.

NOTE.—The two hands are together eleven times in twelve hours, viz., at 12 o'clock, and at ten other points. The first of these points is  $\frac{1}{11}$  of 60 =  $5\frac{5}{11}$  minutes past 1, the second  $\frac{2}{11}$  of 60 =  $10\frac{10}{11}$  minutes past 2, the 3rd  $\frac{3}{11}$  of 60 =  $15\frac{15}{11}$  =  $16\frac{4}{11}$  minutes past 3, the 4th  $\frac{4}{11}$  of 60 =  $20\frac{20}{11}$  =  $21\frac{9}{11}$  minutes past 4, &c.

(b) At what time will the hour-hand and the minute hand be opposite one another, the hour-hand being between 12 and 1 o'clock? Between 1 and 2 o'clock? &c.

NOTE.—The two hands will be opposite one another, 11 times in 12 hours. The 1st point will be  $\frac{1}{2}$  of 60 + 30 =  $32\frac{8}{11}$  minutes past 12; the 2nd point will be  $\frac{3}{2}$  of 60 + 30 =  $38\frac{2}{11}$  minutes past 1; the 3rd point will be  $\frac{5}{2}$  of 60 + 30 =  $43\frac{7}{11}$  minutes past 2. The results may be obtained

by constantly adding 1 hour  $5\frac{5}{11}$  minutes. The hands are opposite one another at 6 o'clock.

(c) At what time will the hour-hand and the minute-hand be at right angles to one another, the minute-hand being in advance of the hour-hand, and the hour-hand between 12 and 1 o'clock? Between 1 and 2 o'clock? &c.

NOTE.—This position of the hands will occur 11 times in 12 hours. The 1st point will be  $\frac{1}{4}$  of 60 + 15 =  $16\frac{3}{4}$  minutes past 12; the 2nd point will be  $\frac{5}{4}$  of 60 + 15 =  $21\frac{3}{4}$  minutes past 1; the 3rd point will be  $\frac{9}{4}$  of 60 + 15 =  $27\frac{3}{4}$  minutes past 2. The results may be obtained by constantly adding 1 hour  $5\frac{5}{11}$  minutes. The hands will be in this position at 9 o'clock.

(d) At what time will the hour-hand and the minute-hand be at right angles to one another, the hour-hand being in advance of the minute-hand, and the hour-hand between 12 and 1 o'clock? Between 1 and 2 o'clock? &c.

NOTE.—This position of the hands will occur 11 times in 12 hours. The 1st point will be  $\frac{3}{4}$  of 60 + 45 =  $49\frac{1}{4}$  minutes past 12, the 2nd point will be  $\frac{7}{4}$  of 60 + 45 =  $54\frac{3}{4}$  minutes past 1; the 3rd point will be  $\frac{11}{4}$  of 60 + 45 = 60 minutes past 2, that is 3 o'clock; the 4th point will be  $\frac{15}{4}$  of 60 + 45 =  $51\frac{3}{4}$  minutes past 4. The results may be obtained by constantly adding 1 hour  $5\frac{5}{11}$  minutes. The expression "next after 12 o'clock" may be used instead of "between 12 and 1 o'clock" &c., so as to avoid the difficulty that may occur where the hour-hand is exactly at 3, 6, 9 or 12 o'clock.

To be Continued.