of the greatest parallelopipedon that can be cut out of it. Find the area of a square whose diagonal is $3\frac{1}{2}$, and multiply this area by the given length.

92. A farmer uses a roller, 4 feet 8 inches wide, and 2 ft. 8 in. in diameter. How many revolutions does it make over 7A 3R 25P? 8809.32, the answer.

93. A cow is tithered with a rope so as to graze over 1A 35 P of pasture; but the grass being insufficient to feed her, what additional length of rope will allow her the use of another acre? Answer 16 yds 1 foot.

94. Required the dimensions of an upright cylindrical vessel, capable of containing 16 gallons, when the depth is equal diameter of the base? $.7854\ x^2 \times x = 277.264 \times 16$. This equation gives $x = 17.809$ = height, or diam. of the base.

95. If into a cylindrical vessel whose inner diameter is 3 inches, we put as many wires of $\frac{1}{14}$ inch diameter, as possible; how much water can be afterwards poured in, allowing the height of the vessel to be 12 feet?