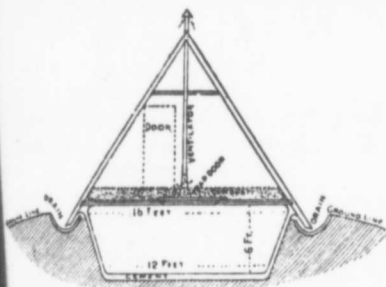


## THE VENTILATION OF BEE CELLARS

By  
E. R. ROOT,  
in  
"Gleanings"

The following article by Mr. E. R. Root, in "Gleanings", describes the construction of T. F. Bingham's cellar, and also gives the rather adverse views of Mr. Doolittle and Mr. Bingham on the question of ventilation.



The Bingham Cellar

built on the same general plan, with the exception that the sides are less sloping, and are lined with a single thickness of hard brick laid in cement—that is, the sides are lined with a 4 inch wall. In our clay soil we were afraid to trust the cement lining; but to strengthen the wall further, the sides and ends were made slanting, so that the top of the cellar is 8 inches wider and longer than the bottom.

Instead of constructing a plain cheap gable roof we moved a building which was out of use, over this cellar, put in it a double floor packed with sawdust 10 in. thick, this floor serving as a ceiling to the room below. The building had been constructed and bees put into the cellar, before I happened to think that no ventilator had been provided; then remembering that some of the prominent advocates of indoor wintering had said that no ventilation, or but very little, was required, I began to wonder whether any was really needed. I accordingly wrote to Mr. Doolittle (a no-ventilator man), who had used successfully for a number of years a bee-cellar built on the side of a hill, having walls somewhere about 20 inches thick. I explained the construction of our cellar, and asked him if, in his opinion, a ventilator would be needed. This is his reply:

Mr. E. R. Root:—I have made no provision for ventilation of my underground bee-cellar for the past 15

As indicated in the diagram, the cellar is 16 feet square at the top, and 12 feet at the bottom. The sides are sloping (to prevent caving in), and are lined with cement. A double floor, packed with sawdust, covers it, and over this is a gable roof. Through this floor there is a trap-door, and along about the center a 16-inch ventilating-flue connects through the top of the cellar to the roof in the super structure. Mr. Bingham's idea seemed to be that the bees need a great deal of ventilation. In the drawing the ventilator is shown to be only about 16 inches in diameter; but as he explains, this was not found to be large enough, and was subsequently replaced by the larger one.

Our cellar at the out-yard was