from those of either of the former, simply because the early settlers of this particular locality came from an eastern state and started building the style of barn then common in Pennsylvania.

In a certain community in Ohio where a milk condensing factory is located, a large number of farmers have barns 36 × 60 feet, with an "L" the same size. The loft of the "L" is used for the storage of straw, and the cows run loose in the lower portion. These barns are all built on practically the same plan and are usually of the same size, and this is the only community known to the writer where this form of barn is used in this manner.

This tendency to imitate emphasizes the fact that men do not exercise sufficient originality. Because most barns are rectangular is no reason that this is the best and most economical form.

WHY MORE ROUND BARNS ARE NOT BUILT

[Illustration: FIG. 1. BARN NO. 5. 100 FEET IN DIAMETER, SCALE 20 FEET TO ONE INCH; SHOWING INCREASED MOW CAPACITY GIVEN BY SELF-SUPPORTING ROOF.]

In an early day when lumber was cheap, buildings were built of logs, or at least had heavy frames. Under these conditions, the rectangular barn was the one naturally used, and people have followed in the footsteps of their forefathers in continuing this form of barn. The result is that the economy and advantages of the round barn have apparently never been considered. This is because they are not obvious at first sight, and become fully apparent only after a detailed study of the construction. For these reasons, the rectangular form still continues to be built, altho it requires much more lumber. As the price of lumber has advanced so materially in recent years, the possible saving in this material is a large item, and well worth investigating.

The objections to round barns have usually been made by those who have only a superficial knowledge of the subject, and do not really understand the relative merits of the two forms. To the writer's knowledge, there has never been published a carefully figured out, detailed comparison of a properly constructed circular barn with the rectangular barn.

The difficulty with most round barns that have been built, thus far, is that they do not have a self-supporting roof, and consequently lose many of the advantages of a properly constructed round barn. This is the principal reason why round barns have not become more popular. A straight roof necessarily requires many supports in the barn below. These are both costly and inconvenient, and make the roof no stronger than a dome-shaped, self-supporting roof which nearly doubles the capacity of the mow. See Fig. (1).

Many who have thus disregarded capacity have also wasted lumber and made a needless amount of work by chopping or hewing out the sill and plate, thus requiring more labor and lumber, besides sacrificing the greater strength of a built-up sill. Rightly constructed round barns are, however, being built to a limited extent. One contractor has erected twenty-four round barns, with self-supporting roofs, in the last nine years. These barns vary in size from 40 feet in diameter with 18-foot posts to 102 feet in diameter with 30-foot posts.

Another reason for the scarcity of round barns is the difficulty in getting them built. Most carpenters hesitate to undertake the work because in the erection of a round barn the construction should be entirely different from that of the rectangular form. Many new problems present themselves, but when these are once understood, the round barn offers no more difficulties in construction than the rectangular form. It is, however, important to have a head carpenter who is accustomed to putting up round barns, as a man with ingenuity and experience can take