

SUGGESTIONS REGARDING THE STRUCTURE OF THE APPLE.

BY HENRY M. SEELY, OF MIDDLEBURY COLLEGE, MIDDLEBURY,
VERMONT.

At an agricultural meeting in which the relation of the leaf to the fruit was a portion of one of the topics discussed, Dr. T. H. Hoskins enquired how the apple could be regarded as coming from a leaf or from a cluster of leaves. The question was answered only in part at the time, but gave rise to the observations on which the following thoughts are founded. I have not been able to consult authorities, but as opportunities have permitted, have watched with interest the growth of the fruit of the apple tree. Without being able at this time to offer observations at all complete, I do venture to make some suggestions, which perhaps had better be styled guesses, as to the possible structure of the fruit.

The very aspect of an apple tree will indicate whether it has yet come into bearing. The straight or gently curving branches of the symmetrical young tree become spurred, angular and irregular on the fruiting tree. The round full countenance of youth is no more surely changed by thought and responsibility than the shape and beauty of a tree by the crop it bears.

The buds at the falling of the leaves in autumn, disclose the possible crop of the succeeding year. Their size and position will not mislead a practical eye. Destruction of all promise of fruit may come from conditions both within and without the tree, but the germs of the crop are already established in the bud, and only favorable conditions are needed to secure a full yield.

It would be a most interesting study to follow the growth of the flowering bud from its first inception; that however is not the purpose of the present writing.

The flower bud of the apple opens and discloses five small flower stalks standing among the leaves and surrounding a sixth stalk a little longer than the others. Each of these is tipped with