used in the building processes of to-day is superficiality. The world wants thoroughness. Our own beloved land is cursed with shallow men, with half developed industries and professions. Our factories turn out imperfect products, cheap goods made but to sell. Our educational institutions, in too many cases, are in the hands of men who, daring to hazard anything for a fat salary, thrust themselves, by skillful manipulation of political wires, into positions for which they know themselves utterly incompetent. Our daily press is fast becoming a by-word among journalists abroad and a "skeleton in the closet" of thinking men at home. Our pulpits are desecrated by hollow-headed orators. And so throughout the list of industries and professions appears this same deplorable lack of thorough preparation and conscientious execution. Do horticulturists stand above the accusation? Do you not find as practical gardeners andfruit growers, too much of this same element in your ranks? Are you not hampered by the work of men, who, having acquired one idea, take no pains to study out its proofs or bearings, but securely mounted in the saddle of self-confidence, ride their hobbies ruthlessly over the many careful labors of their neighbors? Even the most proficient of our number feels the insufficiency of his knowledge, and the very object of this organization acknowledges the science to be in its infancy.

You have asked me what is the relation of botany and horticulture, and I answer this: That only as these two subjects are developed hand in hand and made mutually interdependent, can either one be thoroughly mastered.

Whether botany depends upon horticulture, or horticulture depends upon botany, in other words, which is the primary and which is the secondary subject, is a problem similar to Froude's famous question of "which first existed, the owl or the egg?" The owl, you remember, in discussing the problem, remarked: "When I reflect upon the beauty of a complete owl, I think that must have been first, as the cause is greater than the effect. When I remember my own childhood, I incline the other way." So, when we reflect upon the magnitude of our State Horticultural Association, we are inclined to give to this science the precedence. When we remember the practical benefits of our botanical experiments, we incline the other way. So, leaving the question unsettled, let us proceed in detail to the relations which these two subjects, whether treated as sciences or industries, bear to each other.

It may be well, in the beginning, to understand clearly what is embraced in each. The term horticulture, from the Latin words "*hortus*," a garden, and "*cultor*," a tiller, means literally the tilling of a garden. Botany, a word of Greek origin, is defined as the science which treats of the structure of plants, their places of growth, their classification and the terms employed in their description and denomination.

Thus defined, the work of the horticulturist would necessarily be very blind without some botanical preparation. In the garden of such a husbandman we might indeed expect to gather grapes from thorns, or figs from thistles. Without any knowledge of the functions of their parts, their places of growth, etc., he would, as likely as not, try to grow oranges in frigid climes or cacti in a marsh. Of course a few years of experience would teach these lessons, but the years spent thus would be years of botanical and horticultural experience.

Aside from this general way in which a knowledge of botany is indispensible to the horticulturist, we may take time to note two particular cases in which the latter is under endless obligation. The first is the discovery and the development of the process of cross fertilization. Fruit and flower growers need only an allusion to this