himself. The importance of the grasses is shown in the relation which they bear numerically to the total vegetation of the earth. It is estimated that at least one-sixth of the plants that grow upon our earth, belong to this family, and nature takes great care for their production and protection. A large proportion of the species are perennials, they are uninjured by the laceration and cropping of their herbage, which is soon replaced by the internal energy of the plant. On the contrary, this very laceration which would utterly destroy many families of plants is really necessary for the most vigorous growth of many species of grass, and is essential to their continuance upon the same area. The most useful of those in which we are more directly interested, and which the dairyman depends so largely upon for his herd, is timothy and clover, (though the latter is really not a grass) ; and although there are various other species of the grasses that would be both profitable and desirable, yet little attention is paid to variety by the great majority of our dairymen, and the average quantity produced per acre, is far below what it should be. Our meadows and pasture fields, like our cows, are too apt to be reckoned by the number of acres instead of by the quantity produced, thinking that having sown the timothy and clover with sometimes perhaps a little red top, we congratulate ourselves on having done a very virtuous thing, seeming to think that when we have committed these few seeds to the earth, all has been done that man can do, not knowing perhaps that in the fine old meadows of England, not less than thirty different species are found growing upon one sod. Not one of us in one hundred knows the names of the different grasses growing upon the farm, nor do we understand the peculiar properties, or the relative value of the different species. Grass is grass, and that is all we trouble ourselves to know. Like Wordsworth's Peter Bell:

> "A primrose by the river's brim,
> A yellow primrose was to him,
> And it was nothing more."

The farmer goes into his meadow when the proper season comes, cuts his grass, and converts it into hay ; this being done he thinks no more about it till the corresponding season of the ensuing year, when he goes through the same operation again, often wondering why his returns are so small. The main reason for this is that so few try to improve their meadows. I believe much less care and thought, study, science or labor is bestowed upon the meadow than upon the land intended for grain.

The old adage that "he who caused two blades of grass to grow where but one grew before" has a great significance when we take into account the value of this product of husbandry is reckoned in dollars by the million ; and if these large figures are doubled how much is added to the real wealth of our country. It may be said by many of our farmers, that to talk of doubling our grass crops is quite impossible ; I believe, on the contrary, that it is quite practicable to double them and more. I do not think the meadows of our country will exceed, if they even reach, one ton of hay to the acre, while there are those farmers who reap two and three tons. Now, what has been done by one can be done by another if he bring into the task the same tact, energy and skill. As like causes produce like effects we scarce know to what extent this increase can be carried, as I have it on good authority that from some of the irrigated meadows near Edinburgh, twenty tons from the acre have been taken in six several cuttings the same year.

Among the few grasses that farmers know anything about, there is great diversity of opinion as to their nutritive value. This statement may be proved by asking six different farmers. Each one will have his favorite, and there will be as wide a difference as possible in opinion, showing clearly that they have no real valuable knowledge on this important question, and that conclusions are arrived at from very uncertain data. Now, in order to test the real merits