and have been surprised and really disgusted to note the very long time it took to get a load, contrasting very unfavorably with the work done on wallflowers and mustard, which latter We can recommend as a plant that can be brought in to suit almost any district at a time of scarcity. Rape sown during the previous autumn will give an unlimited supply of pollen from the end of April, earlier or later, according to the season, for three or four weeks just at the right time; but for the most part bee-keepers can use their own judgment, bringing into bloom What is likely to prove more serviceable at a time of scarcity, according to their respective needs, while plants grown especially for honey may, in many cases, be made to bloom several Weeks longer than is naturally the case, by a judicious pruning of the fading flowers, or partial cutting of the crop, as the case may be.

Read before the Maine Bee Keepers' Association at Brunswick, Jan. 8-10, 1889.

## COMB HONEY.

SOME PRACTICAL POINTS IN ITS PRODUCTION.

HERE was a time—way back so far that we don't care much about it now-that honey formed the great sweet of the world, and it held its place in the affections of our oldtime esteemed relations up to a little matter of time of about 200 years ago-more or less, a few Years either way don't make much difference. The Production of cane sugar and syrup by the labor of the slaves in the seventeenth century-our remote relatives hadn't begun to imbibe the great moral lessons taught by the bees-had, in a great measure displaced honey as an article of food, and while our several times great grandfathers Quite readily caught on to the idea of manufacturing sweets themselves from the products of the fields in the sugar cane, they had the most ridiculously absurd notions concerning the wonderful little bee, that hasn't changed a whit in its instincts, habits or want of respect for its

Hence, while the bee was just as wise then as to-day, and laughed out of both corners of her mouth at the old-time obtuseness of our relatives in missing the real business end of the bee,—for which, as now, they often gave emphatic pointers, for this reason slow progress was made in improvements in bee culture, and instead of increasing the number of colonies, there were annually thousands of them destroyed with the brimstone match, in order to secure their honey. So, on account of this wholesale destruction of bees and a lack of a proper knowledge of their instincts and their successful management, honey

fell into comparative disuse for many years. And this state of things continued, with only slight improvements up to within a quarter of a century ago. Since that period the most wonderful strides have been made, both in the science of bee-keeping and the appliances used in their successful management.

These wonderful improvements, and the close study and painstaking experiments. Yankee beekeepers have adopted, have been the means of increasing the amount of honey production immensely, and if this production continues to increase as rapidly during the next ten years, as it has in the last decade, may we not reasonably expect that honey will take its place among the leading products of this country.

## STRENGTH OF COLONIES.

A fundamental principle to be observed in the production of honey in either form,—comb or extracted,—is strength of colonies. And I would, if possible, make provision for the contingency of weak swarms in spring by having all stocks go into winter quarters strong in numbers. There are extremes to be avoided in both ways—too large colonies and too weak ones.

I mean by that that the abnormally large swarms we often find in the apiary where a part or all, has been run for extracted honey, are not the best to winter, unless special provision is made in order to get them through and then, my experience has been that it is better to divide such swarms immediately after the summer harvest is over, giving a laying queen to the queenless portion, and build up two swarms for winter in lieu of one. There is a strong liability that the large mass of bees in such a colony, left undivided, will die before spring, while on the other hand, the two medium ones, if properly taken care of, are pretty sure to survive the winter months.

These medium populous colonies in the fallwhich may be called strong ones-as a rule, are the ones which will come through the winter when wintering in a good cellar, nearly as strong as when they are put into winter quarters in November. This may be accounted for on the supposition that early breeding commences and their numbers are kept up by production of young bees. Now I know there is a point for discussion here; some of our best apiarists believing that it is injurious to the future prospects of the colony to have the queen commence laying before March or April. But it is need. less to remark that it is the strong swarms which store the surplus honey in June and July, and take advantage of the white clover harvest. Then the question arises: How shall we attain to this maximum strength of colony unless we