

as with all others whoever produces at maximum cost will fail, and whoever produces at minimum cost will succeed. As the hive is closest connected with the laborer, so much of his time being spent in manipulating it, it still holds true that in this implement far more than in any other, and perhaps I might say more than in ALL others combined, we must arrange it for economy of labor.

Over a quarter of a century, as almost a specialist, has taught me the following: It is a mistake to use double-walled hives or heavy hives of any kind. One-story hives, deep frame hives, or hives with slide doors, movable sides or observatory attachments, are a great mistake.

We are now using hives so constructed that almost every needful manipulation, such as are essential to successful honey production, can be performed in from one-half to one-tenth of the time heretofore required, besides decreasing risks, such as robbing and stinging, to a minimum. While each and every comb is readily removable, nearly all useful operations can now be performed without the waste of time necessitated in moving single combs. This is accomplished by the use of extremely shallow, close-fitting frames, in a horizontally divisible brood-chamber. With this construction we have all the advantages of a deep hive, a shallow hive, a large hive, a small hive (or brood chamber I might better say) with none of their disadvantages. We can practice contraction in its best possible form, without lessening the top surface of the brood-chamber. The quantity of honey, brood and bees, can be almost instantly ascertained with almost no exposure to robbers and with least danger from stings; queens can be found, queen cells destroyed, nuclei formed, artificial swarming practiced, etc., with less than one-fourth the time needed by the old methods, because all can be done without the removal of a single frame, and all of this because of a twelve-inch brood chamber being made divisible, in two cases containing two separate sets of extremely shallow frames, while readily removable, still solidly screwed to position. Shallow ex-

tracting supers (a favorite with practical beekeepers, and used by me for over 20 years) with this hive, and this hive only, can be made a fac simile of the brood-cases. This hive construction is the only one with which we may expand the brood-chamber in the most natural manner and with which we can at all times keep our brood closely up to the break-joint, bee-space honey-board upon which the surplus cases rest. In consideration of the above advantages, together with many others we will omit for want of space, several of which are experienced in wintering, every bright and successful honey-producer will sooner or later be compelled to adopt this style of hive or be left behind in the race.

The successful honey producer will not use cloth covers in summer, nor enamel cloth at any time of year; he will use nothing but a well-cleated, flat board hive-cover, which will be used to cover the surplus receptacles. He will make his hives of lumber less than $\frac{3}{4}$ in. thick, in no case having the cover or bottom boards more than $\frac{3}{4}$ in. thick.

The bearings of the different parts, as they come together, will be as narrow as possible, never exceeding $\frac{3}{4}$ inch, materially aiding in manipulating, with safety to the little workers. The successful honey-producer of the future will use the break-joint, bee-space honey-board, and usually made queen excluding. A board is the best thing for shade, so necessary in the heat of summer. All hives should be painted dull white, so as not to accumulate heat from the sun, and yet not reflect his rays in the form of a glisten, so tormenting to the eyes of the bees and bee-keeper. When wintered outdoors these hives should be packed in outer cases, not to exceed two or three inches space between the two and this should be solidly packed with sawdust and the outer case painted dark red. This dark color and the solidity of the packing, together with not too extensive space, will furnish your bees with much beneficent solar heat throughout the winter. Oh! I mustn't forget to mention the Reese bee-escape. You may call it the "Porter," or the "Davis," or "Smith,"