

hardly tell why it is. I am not against them, nor yet do I enthuse in their favor.

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It is not an uncommon thing to find the Hybrid Colonies as black as the black bee. They need just a little Italian blood in them to make them better honey gatherers, and we frequently find these Hybrid Colonies produce better results than either the black or Italian, but when they come to be crossed with the expectation of getting something better, we will find the result disappointing.

It is not unfrequently the case that Italians in this locality produce Hybrids which are as black or nearly as black as our blackest bees. Then a small drop of Italian blood is sufficient to make them better honey gatherers. Who has kept bees and have not found numbers of Hybrid Colonies giving better results than either the blacks or Italians, but when the attempt is made to cross them or improve them the result is frequently unsatisfactory. As the first gives better results our experience is entirely in favor of Italians over pure blacks. The comb honey by the blacks is better as they do not fill their cells so full and it leaves a larger air space under the capping, which makes the capping look whiter. Syrians are more inclined to fill the cells full to the cap than the Italians, and we have known them to cap large patches of comb so that it would look watery and dark.

From the Bee-Keepers' Guide  
Glueing Dovetailed Sections.

S. CORNEILL.

For several years I used nailed sections, but latterly I have used white poplar sections with dovetailed corners. My experience with these is that they do not keep their shape as well, and are far from being as strong as the nailed ones. I find that such prominent bee-keepers as L. C. Root, G. W. Demaree, Will M. Kellogg, S. Cushman, C. W. Dayton, and Capt. J. B. Hetherington agree in saying that their experience has been the same as mine. I have seen descriptions of appliances for glueing sections, but the machines seemed to be so difficult to make, or the process was so troublesome, that I never attempted it. During a conversation with Capt. Hetherington at the Albany convention, he said that if he could not conveniently glue the dove-

tailed sections, he would go back to the nailed ones. He then described a simple appliance which he used for putting a very little hot glue on the corners of the tenons of the narrow pieces before putting them into the section press. I have fitted up such a machine, and I find I can now glue my sections with very little additional labor. Near a wall place a kerosene stove on a stand, and on the stove place the glue pot. The problem to be solved is to invent an appliance by means of which the end of a stick, say an inch square, may be dipped into the hot glue by the pressure of the foot on a lever, and may then be quickly withdrawn, by means of a spring. At a cost of ten cents I procured from an upholsterer a spiral spring such as is used for sofas, etc. I placed this spring in a box, about seven inches square and 14 inches in height. When finished this box is closed on all sides except an opening of about an inch from top to bottom on the front side. The box is fastened vertically against the wall. From the centre of a board placed on top of the spring, a string is dropped down through the spring to the end of a treadle, near the floor. This gives us the downward and upward motions. For the dipping part of the arrangement fasten by screws to the board on top of the spring an arm extending horizontally through the opening in front. To this arm fasten the piece which is to dip into the glue, to make sure that the dipping piece shall always come down true into the glue pot, the piece to which the arm is attached should run in grooves or between sort of guides. I secured this feature by running saw cuts, say three-eighths of an inch deep, in the ends of a piece of board about four inches wide, and of such a length that it just goes into the box crosswise. The grooves in the ends of this piece run on the edges of two pieces of three-quarter-inch hoop iron, fastened in the saw cuts in the opposite sides of the box. The piece placed horizontally on top of the spring is fastened with screws to the lower edge of this grooved piece, causing the vertical motions of the arm to be true every time.

To glue the sections it is only necessary to hold two narrow pieces together in the hand, even at the ends, and, after dipping the stick into the glue by a motion of the foot, touch first the corners of the tenons on one side, then those of the other, to the glue on the stick, then turn the pieces in the hand, end for end, and touch the corners of the other end in the same way. When the section is put together there will be so little surplus glue that it will require close inspection to pick out glued sections from others not glued.

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