

pass through that portion of the wire screen projecting over the bottom board. The hive can be drawn back nearly half way on the bottom board, and there can be no danger of tipping. The screen might be dispensed with, but the bees in the hive, and outside enemies could then make an entrance of this portion, which would not be desirable.

Another way would be to cut an opening in the bottom board, arrange to close this with a solid or wire screen slide, as desired. But this means a good deal of additional expense, and supply dealers say, and I think with some show of justice, that beginners and inexperienced bee-keepers do not sufficiently appreciate well made hives now, and extra cost is objectionable. It increases the expense of manufacture, and of course the selling price, and those not seeing the value of accurate bee space, smooth work and well designed hives, prefer to purchase where they can get the cheapest, or rather lowest priced hives. I believe myself that for that reason, anyone desiring these slides should have them put in himself. But perhaps Mr. Post's method, or Mr. Pettit's will answer as well.

Now as to the top of the hive, ventilation should not be given from here. I do not believe in following natural inclination blindly, but the bees in nature hermetically seal as soon as possible the top of the hive. In the last number of the Canadian Bee Journal I explained some objection to ventilating at the top of the hive. Such a system is not desirable. But shade the hive. In the spring and early summer, the more warmth the hive absorbs from the sun the better, but when the heat of the sun makes the bees in the hive feel uncomfortable it is time to shade. Grape vines, which do not leaf out until about the time that the bees require shade are excellent if properly trained. Trees trimmed in such a way that the sun's rays strike the hive in early morning and late afternoon are very desirable. Failing this boards can be used to shade the top of the hive, and the portions of the hive exposed to the sun's rays during the warmest part of the day. A honey board, as described in last month's "Notes," allows us to raise the cover proper at the back, and this then becomes a shade board. Heavy projecting lids, with a cushion between the lid and the honey board are good, but here the same trouble arises. Bee-keepers do not appreciate their value, they are expensive, and the supply dealer dare not add that cost to hives. While in my estimation they are the best cover, the plans otherwise mentioned are a long way ahead of present systems.

By keeping bees together we secure strong full colonies which will work better defend their hive better, and winter better. Such management gives much more satisfactory results. It takes so many bees to do the work of the hive, defend it, gather the honey required by the bees themselves. Those above that number give you your surplus. The more the bees are kept together, the greater the percentage of bees which can work to give you surplus crop. In the next number I propose to take up management for comb or extracted honey. In closing let me say get your supplies in time, and use full sheets in sections and in brood frames.

Mr. E. B. Weed, the Inventor and
Expert Wax-Worker.

It would be a revelation to some of you if you could see the improvements that have been made in making comb foundation. The old way was to dip a thin board into a deep vessel of wax enough times to secure a sheet on both sides. It was then cooled in water, and the film stripped off. It was next run through the mills piece by piece, and each time it was necessary to "pick" and "claw" at the ends of the sheets sticking to the rolls as they came through. This operation did not improve the face of the mills, or the foundation. After the sheets were milled they had to be piled up, and cut to a size by hand, causing anywhere from 25 to 33½ percent trimmings that had to be melted over again. Last of all, the sheets were papered by hand and made ready for boxing.

Now if you were to peek into our wax working department you would see an attendant pick up a big cake of yellow wax (60 lbs) and set it into a machine, as it were, and then he leaves it and goes about other work. After it comes out it is converted into a long continuous sheet rolled up on a bobbin. This bobbin is then put into another automatic machine by the same or another attendant; the machine is started, and when this long bobbin of wax begins to unreel it is fed into the comb-mill and is cut to size without waste. There is a click-clack, and the trimmed sheet is next made to lie squarely over a sheet of paper of the same size as itself, and picked up; another click-clack, and it takes a hop skip, and a jump on top of the pile; and fingers almost human, but as lifeless