as possible. Though he cannot procure for tnem the mild air of Italy, he should at least make their winter quarters as warm as he possibly can in order to lessen the injurious effect of the cold. There can be no objection to cut down the combs moderately in spring, and after a colony has done swarming, when the bees are able to renew them in a short space of time. which they evidently do with eagerness, and I myself frequently have recourse to this means in order to obtain guide comb, but to destroy in autumn the winter quarters which the bees have arranged for themselves, and to expose them during a long winter to the direct influence of a fierce cold; and, finally, to advocate destroying bees by brimstone, is a barbarism of which societies for the protection of animals should inform the police in order to have, the offenders Want of water afflicts, and even ruins, many colonies, when olliged to consume candied honey, or honey which has become very thick. Dr. Krasicki considers want of moisture in the hive an invention and fancy of the Ger-

But more dangerous than candied honey is the honey collected from fir and pine trees. When bees are able to fly out it does not appear to affect them injuriously, but if compelled to use it exclusively at a time of extreme cold in the winter there is a great risk of its doing them harm. Such honey being of a slimy and viscous character, capable of being drawn out in the shape of a rope when the temperature is low, appears to be almost insoluble in the absence of water, and less nutritious and warming than other kinds of honey, for which reason a large quantity of undigested matter is retained by the bees in their body, which generally causes dysentery when bees are confined to their hives for some considerable time. long and severe winter thousands of colonies die of dysentery, which disease is quite unknown in southern countries where the winter is mild and of short duration.

The number of colonies which perish from queenlessness every year is also very large, for if an old queen dies in autumn or winter, or a young queen is lost during her wedding-trip, or if she remains unfertilized, the bees in the hive sooner or later disperse, or the colony becomes a prey to bees from other hives. According to the opinion and experience of Baron von Ehrenfels, the number of colonies of wild bees which perish through having lost their queen is greater than those which die from starvation, as he infers from traces of drone-brood which he discovered. As, however, districts and seasons vary considerably, we may expect to

find a great difference in this respect. During the present winter, which was preceded by a season universally described as most unfavorable to bees, it is very likely that more colonies will die from starvation than from queenlessness.

We are unfortunately not able to afford assistance to colonies which have settled in some inaccessible place, but it would be inexcusable if a bee-keeper permitted a colony to die from starvation after it had managed to exist till now, as in hives with movable combs it is easy to insert food at the side of the winter quarters of the bees or above, either in the shape of pieces of or sugar moistened malt-sugar, or combs filled with dissolved sugar in the absence of honey; and this is practicable even when the thermometer indicates a few degrees . After a favorable season when the colonies are plentifully supplied with food the bee-keeper need not be concerned about his bees; but after a bad season like the past, it is necessary to watch the hives and examine them frequently, in order that repentance may not come too late.

Dr. Dzierzon.

## QUERIES AND REPLIES.

UNDER THIS HEAD will appear Questions which have been asked, and replied to, by prominent and practical bee-keepers—also by the Editor. Only questions of firpertance should be asked in this Department, and such questions are requested from everyone. As these question as have to be put into type, sent out for answers, and the replies all awaited for, it will take some time in each case to have the answers appear.

## WINTER PASSAGE OVER COMBS.

QUERY No. 236.—Do you arrange for a winter passage over the combs? If so, how?

WM. McEvoy. Woodburn, Ont.-No.

G. A. Dradman, Brussels, Ont. — No. The  $b_{t+1}$  sometimes do.

S. ( REEL, LINDSAY, ONT.—I have used Hill's c vice in winter.

MARTIN EMICH, HOLBROOE, ONT.—I leave it all to the bees.

- A. B. MASON, AUBURNDALE, OHIO.—Sometimes, by laying small sticks across the frames.
- G. M. DooLITTLE, BORDDINO, N. Y.—No. Have tried it for years, and those having no such passage winter fully as well.
- R. McKnight, Owen Sound, Ont.—I used to do so, but the more I learn of bees the more I am disposed to call on them to attend to their own wants.