## Frost in the Hollows

AMONG the by-products of this Calendar—they are rewards, but I hesitate to suggest that I deserve or earn them—are the corrections of my ignorance by men of science. I have found that if I go on repeating an error I will sooner or later provoke an expert into letting me have a broadside of fact; and the only thing to do then is to drop as quickly as possible into a funkhole. That is my position as I write this

OCTOBER 25 note and remember my last. I have been sent the latest issue

of the New Zealand Journal of Science and Technology, which opens with a 12page paper by R. A. Cumber on the Life Cycle of Humble Bees in New Zealand-and makes me look a little worse than foolish. I did not know that so much work had been done on humble bees in this country, and that the results were so freely available. I knew that men had studied bees since the earliest days of which we have record, and for many earlier days now lost to us; that philosophers and poets had rubbed bees into our hair since Aristotle: and I remembered vaguely that a bee (perhaps mummified, perhaps inscribed) had been found in the tomb of one of the Pharaohs. But the bee story that particularly worried me in New Zealand was the legend, about as old as I am myself, that the millions of clover flowers seen every summer are fertilised by humble bees, and produce no seed unless the bees find them. I could not believe that there had ever been enough bees in New Zealand to do the job, and I gave up trying to believe in such a miracle when I discovered, or thought I had discovered, that only the queens among humble bees survived the winter.

Well, belief and unbelief are both easier when no one has the facts We can all call spirits from the vasty deep if there is no one present to say whether the spirits come. I could cast doubt on the secret life of the humble bee as long as no one was ahead of me with the true story. It covers me with confusion to learn that the story is already well

by "SUNDOWNER"

known, and differs only in minor details from the legend. I am not compelled to surrender all my doubts or cease asking questions. It is even more difficult than it was before to believe that there is a bee for every clover head, since it seems to be established that although three species of humble bee were introduced to New Zealand, only two were firmly established, and that of these two only one has a long enough tongue to pollinate the clover successfully. I can go on wondering what happens to the flowers the bees miss. But I can no longer suppose that the bees themselves have not been numbered, taped and tagged.

THE frost that has just wiped out my tomatoes and blackened my potatoes seems not to have risen more than a foot or two from the ground. With the exception of my gooseberry bushes, which are young and low, I have lost very little fruit, if any, though neighbours less than a mile away have lost everything. I don't understand these capricious-seeming hits and misses, but

OCTOBER 27 if I did understand them—I mean if I knew what regu-

lates them-I am sure I would see that they are not capricious at all. I have always supposed that cold air descends, drifting down slopes as I have so often seen fog descending, and coming to rest in the hollows. If this is the case it would explain why my fruit escaped and my vegetables suffered, but it would not explain why the pattern changed in other orchards not very far away. I suspect that the air currents are deflected by trees, rocks, twists in gullies and currents meeting them from other directions, and that they do not often repeat themselves. There must sometimes be freezing pockets by night as there are so often warm pockets by day, and just at the close of day, and there will always, I suppose, be unavoidable surprises and losses. In this particular case the surprise was not so much the severity of the frost as its duration. It came long before bedtime and lasted till the

sun approached next morning, holding surface plants in a freezing chamber for eight or nine hours.

It is, I suppose, possible to believe that if such things did not happen now and again the same results would be achieved in other ways. We see what happens in gardens and orchards because the living things there are numbered and controlled. The floods, the droughts, the fires famines and stranglings are started by our own hands. We don't see what a frost does over the garden fence, beyond our little cultivated patches. under the bushes, and at the root of every blade of grass. There its killing is secret, silent, ruthless, indiscriminate. If we could see what happens as it happens I don't think an atom bomb would worry us much, or the fear of annihilation by any other method. We would know that the myriads of living things on the earth are feeding from the ous' of the countless myriads more for which the earth has no room.

A CORRESPONDENT has asked me two questions about Raymund Ward: Why, if he knew so much, did so few know him? And why did he not share his knowledge with the world?

I am not sure that either question deserves an answer, and I am sure that there is no answer which will satisfy such a questioner. But the facts are quite simple.

Raymund Ward was widely known in those places in which scholarship is valued. He was as

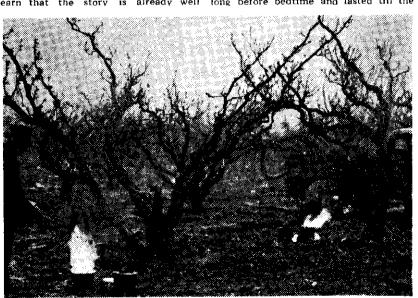
OCTOBER 31 widely known everywhere as he wished

to be, and desired nothing so much as to remain a stranger in the (to him) strange land that most of us inhabit. He did not despise that land or the people who lived in it. With the few whose paths crossed his own he maintained humble and warm and sympathetic relations. But with the others it would have been a waste of time—theirs as well as his—to exchange more than courtesies.

To the second question the best answer is another question: What did he hold back that other people wanted? Knowledge can be shared only with those who have it and value it. Even if we concede that a scholar owes what others may retain, or is under an obligation from which others are free—and without qualifications I would not concede that—the simple fact is that knowledge can't be cornered. It must be shared to become and remain knowledge as the players in an orchestra must pool their taste and talent to produce a symphony It is shared by being possessed.

That is half the answer in Raymund Ward's case. The other half I hesitate to suggest, but it could have been this: that he took no steps to share his knowledge in the popular and external sense by giving lectures, say, or writing books because he was not quite satisfied with it. The more he knew the more conscious he became of his limitations. The nearer he was to greatness the more clearly he con the oulf it was not worth trying to cross. In all my contacts with him I was conscious of something that went a little further than diffidence and modesty-a firm, calm, but slightly sad refusal to accept the position I gave him. It was the attitude of a man who was too big for mock-modesty, but too rlear-eved to deceive himself. He knew that he could if he tried, push the door half open, but not open it wide enough to walk through to fame and stay there

(To be continued)



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