## TO THE READER.

added to the common fund. In such of the following Lectures as deal with but the established geologic phenomena, and owe whatever little merit they may possess to the inferences drawn from these, or to the conclusions based upon them, most of the figured illustrations, though not all, will be recognised as familiar: in the two concluding Lectures, on the contrary, they will be found to be almost entirely new. They are contributions, representative of the patient gleanings of years, to the geologic records of Scotland; and exhibit, in a more or less perfect state, no inconsiderable portion of all the forms yet detected in the rocks of her earlier Palæozoic and Secondary floras.

It will be seen that I adopt, in my Third and Fourth Lectures, that scheme of reconciliation between the Geologic and Mosaic Records which accepts the six days of creation as vastly extended periods; and I have been reminded by a somewhat captious critic that I once held a very different view, and twitted with what he terms inconsistency. I certainly did once believe with Chalmers and with Buckland that the six days were simply natural days of twenty-four hours each,-that they had comprised the entire work of the existing creation,-and that the latest of the geologic ages was separated by a great chaotic gap from our own. My labours at the time as a practical geologist had been very much restricted to the Palæozoic and Secondary rocks, more especially to the Old Red and Carboniferous Systems of the one division, and the Oolitic System of the other; and the long extinct organisms which I found in them certainly did not conflict with the view of Chalmers. All I found necessary at the time to the work of reconciliation was some scheme that would permit me to assign to the earth a high antiquity, and to regard it as the scene of many succeeding creations. During the last nine years, however, I have spent a few weeks every autumn in exploring the later formations, and acquainting myself with their peculiar organisms. I have traced them upwards from the raised beaches and old coast lines of the human period, to the brick clays, Clyde beds, and drift and boulder deposits of the Pleistocene, era and