voted to the circumstances of the invasion of Ireland and its results, and yet the only title they recognise in Henry is that monarch's power and the submission of the Irish chiefs. They simply ignore any Bull of Adrian and any investiture from the Holy See. There is, we are told, another letter of Alexander III. preserved by Giraldus, granted to Henry in 1172, confirming the gift and investiture made by Adrian IV. This, it is triumphantly asserted, sets at rest for ever any doubt about the authenticity of Adrian's Bull. This objection is met with the answer that the confirmatory letter of Alexander III. is also a forgery, because the three genuine letters of Alexander are dated from Tarentum 1172, while the supposed confirmatory letter is dated from Rome 1172. Now, owing to the disturbed state of Rome, it was impossible for the Pope to reside there at that period, and as a matter of fact, he did not return to the city till 1178. Moreover, Dimock asserts, what Ussher long ago remarked, that the confirmatory letter of Alexander once formed part of *The Conquest*, though later copyists and the first editors, including the learned Camden, recognising its spuriousness, excluded it from the text. The same letter is found in another work of Giraldus, *De Instructione Principis*, and here it is stated that, "some assert or imagine that the Bull was obtained from the Pope, but others deny that it was ever obtained." Thus the confirmatory letter, with its evidence in support of Adrian's Bull, goes by the board.

(To be continued.)

AUCKLAND DIOCESAN CATHOLIC TEACHERS' INSTITUTE

REPORT OF PROCEEDINGS.

(Continued.)

THE TEACHING OF SCIENCE.

(By a Marist Brother.)

The purpose of this paper is not to outline definite methods of teaching science in the school, especially the primary school, nor is its purpose to set out schemes of work in elementary practical science, but it is sought that it might prove an incentive to an introduction into all schools and all classes in those schools of a more scientific method in imparting knowledge, a method which will make for the cultivation of the habit of accurate investigation and be a means of mental discipline of the highest value.

Till recent years, the pupils' powers of observation were left lie dormant, and were it not for the old timed but very useful object lessons, science was practically unknown in the primary school, and as for secondary schools the subject was on the curriculum unfortunately, but was so treated that instead of its promoting interest in the facts of everyday life, of fostering a habit of right reasoning, it was made a "cram" subject for public examinations, with the disastrous result that science for most pupils was nothing more nor less than a number of dry facts and theories, bearing no relation to one another, loosely strung together to be memorised.

Formal science itself need not be introduced into the primary school, at least in the lower standards, but what is there to prevent an enthusiastic teacher being ever on the look out for opportunities of making clear to the child mind the various happenings going on around him. The child's mind is curious and active, seeking in a general way an explanation of all that happens, and the teacher should be ever ready to afford that explanation and present it in such a way as can be grasped by the child mind, and make it more eager to delight in organising by late studies some of the vast store of general knowledge, it has been acquiring during its earlier years. We must develop in the child the desire to find purpose and motive in its occupations; the motive may be trivial, but what is not so, and what will make it effective is, that it must be felt at the time to be important. Moreover, if we are in earnest, and desire our children to grow rational, that is, to note the relations of cause and effect in daily life, then we shall always be seeking to base our scholars' activities on those motives which lie within their grasp.

The real study of true science commences, then, at a very early stage. The children who show a desire to play with boxes of letters, picture blocks, to notice the succession of objects by counting, experience a marked pleasure in all this, and a tactful teacher, far from debarring such enjoyment, will encourage it. At this stage all the science the child needs is such as bears immediately on problems which are presented by his occupation. No wealth of apparatus is needed, all they require is simple material—the simpler the better—which they can employ to give concrete expression to their fancy. There must be something tangible, such as chalks, blackboard, bricks, plasticine, with which each might be occupied.

Once the child has come to realise that the new acquirement is really of benefit to himself—an avenue to new experience,—it will learn with better success. The time is ripe for such teaching when the teacher finds that the pupils have become curious as to the use of the various objects in the home, in the classroom, in his general surroundings. The term correlation in its wide and more important sense is applicable here, for if the young mind is to go forward to new pursuits with its maximum of energy all new information must be introduced as an interpretation of practical interests, for it is well known that though science in its various branches has rendered service *to* practical life, yet the rise of such science was *from* practical life. We must then seek for some powerful motives which will elicit the best attention and energy of the learner. These are to be found in the varying normal interests, which a boy or girl of seven or eight years manifests, and from then, till the age of thirteen there is a gradual succession of fields of activity leading from the home indoors to the busy world around. It has already been mentioned that science as a separate subject need not find a place on a curriculum covering the years from seven to twelve—there is no necessity during that time of the boy formulating the ideas, collected from his varied experience—this belongs to the organised studies of the next stage. That is not to say that the child is to neglect science, for he is ever curious, and the teacher will take time as occasion arises to treat separately of any topics in natural science when explanation seems required in order to help the young mind to master a situation, but all this must be done within limitation, for in school practice it is often the teacher alone that masters the pursuit, and expounds it to a docile audience: it is treated as matter merely to be read and learned: here it is the text-book discourses and the audience is still more docile. What is needed is co operative activity from the pupils while the teacher falls into the background and acts merely as a guide.

Apart altogether from the general scientific training which should run through all the lower forms and provide foundation for the more systematic study of elementary science in late school-life, there should be some definite schemes in natural science arranged for the various grades. In formulating these schemes for the different standards, we can be guided largely by realising that the school itself should produce an environment where a love of nature can be fostered and this by means of its garden, its natural history collections, its laboratory, or by means of excursions to neighboring parks or fields, the river side, or sea coast, etc.

In the lower classes the studies would be of a very general nature, mainly observations on outdoor life, spring gardening, etc. At the next stage the observations might be more extensive—simple experiments might be worked in the school garden, in the field or classroom, while enthusiasm might be maintained by well-devised excursions to some neighboring plantation, field, or seaside. A higher course should provide material for connected observation and study: drawing