

BARNSELY NATURALIST AND SCIENTIFIC SOCIETY.

A VALUABLE MUSEUM. (ARTICLE II.)

The main asset of the above Association is, of course, its Museum, and at the present time the well-appointed room in Cass's Warehouse presents quite a striking appearance. It has taken many years to bring the Museum up to the condition it is in to-day, but by dint of care and perseverance the Committee and members have been successful to a degree.

The Museum is under the joint curatorship of Messrs. W. Barraclough and R. Turner, assisted by a sub-committee composed of experts in some branch of natural science. To this arrangement is due the attractive and scientific manner in which the geological exhibits are now displayed. These represent gifts from Messrs. H. B. Nash, F.G.S., a former president of the Society, W. Hemingway, W. Barraclough, and the late Stephen Seal, F.G.S., and it is due to Mr. W. R. Barker that this department at last occupies a position worthy of the centre of the South Yorkshire coalfield. The Botanical department contains a representative collection of British plants, including many local specimens. Some of these were preserved by the late Mr. Hy. Johnson, another past president of the Society, and were presented to the museum after his death by Mr. C. Plumpton, J.P., C.C. Others comprised Dr. Sadler's collection, and besides these are a collection of masses and hepatics, several of which came from the collection of the famous Sir Joseph Banks, for many years president of the Royal Society, who accompanied Captain Cook to the South Seas to observe the transit of Venus, and was one of the foremost scientists of his day. The work of Drs. Smith and Payne, who investigated the local flora fifty years ago, is also represented, not only by the actual specimens, but also by their list containing localities

which was afterwards incorporated by Dr. A. F. Lees in his West Yorkshire Flora. The botanical specimens are not displayed, considerations of space prevent that, but they may be consulted by those interested on application to the Curators.

THE "FATHER" OF THE SOCIETY.

One botanical exhibit, which never fails to excite interest, particularly when a class from one of the elementary schools is being shown round the Museum, is a large case containing a complete cotton plant, roots, and all. The case and its contents, which were especially imported from New Orleans for the purpose, are the gift of Mr. W. Barraclough, who in virtue of his lengthy and continuous membership, may be styled the "Father of the Society."

NATURAL HISTORY SECTION.

Turning now to the Natural History Section, and taking the mammals first of all, it will perhaps strike the ordinary Museum frequenter that this class is but poorly represented. A more careful survey will show that while the larger species are conspicuous by their absence, most of the local species, from the fox downwards, are present, besides exotic species which are of exceptional interest. Yorkshire specimens of the old English black rat from Scarbro', bitch otter from the Dearne Valley, near Stairfoot, and a seal from Thorne, and a fine polecat may be mentioned in the former group, and in the latter the flying fox armadillo, and a specimen of that puzzling creature from Australia, the ornithorynchus, or duck-bill.

BIRDS—A FEATURE.

The exhibit of birds is the dominant note in the Museum; they occupy the greatest amount of space, their variety is infinitely larger, and it is obvious that they have been collected, arranged, and cased with all the care and attention that enthusiasm can command. The first beginnings of the Museum consisted of a few cases of birds presented by the late Mrs. Charles Wright, of Worsbro', and, as previously stated, the long connection of Thomas Lister, an enthusiastic ornithologist, had the very natural result of the collection being developed with a very decided bias in the direction of ornithology. By

numerous gifts from many members and friends, and by judicious purchases of interesting local specimens, or hitherto unrepresented species, the society's collection may contain some 560 specimens, including nearly all the British species. During recent years much progress has been made in arranging these in cases containing as far as possible complete families. Thus, the families of thrushes, owls, hawks, ducks, crows, gulls, game birds, and tits may be studied, en bloc, the similarity between their different representatives noted, and likewise the points which distinguish them one from another. Special mention may be made of a complete and comprehensive case containing specimens of all the British warblers, including the rarer species, such as the Arctic blue throat, and the Dartford warblers. Local varieties include the Alpine swift, rough-legged buzzard, bittern, Leach's fern-tailed petrel, recently taken at Barugh, and the stormy petrel, from Staincross. The exotic species are represented by a fine bearded vulture, a gorgeous scarlet ibis, an albatross, and an emu, etc.

FOREIGN SPECIES.

One end of the room is completely taken up with a large tripartite case containing herons and other wading birds, the smaller British birds, and one portion occupied with a magnificent collection of 170 foreign species, some of which exhibit most gorgeous plumage. These latter reflect the interest taken in his charge by the senior curator, Mr. Barraclough, for the whole of these foreign species is one of his many gifts to the museum. Another exhibit is a tail of the lyre bird, a species fast disappearing from its home in the Australian continent. A fitting complement to this attractive section is the collection of British birds' eggs, and also the nests of various species.

FISHES AND SHELLS.

Fishes are represented by a few striking examples, reptiles by specimens and skins of several exotic species, and representatives of the British species; alligators, crocodile, and various lizards, etc. Another large case, which, with its contents, were presented by Mr. E. H. Wakefield, is devoted to specimens taken from the North Sea fishing grounds. They range from fishes in various stages of growth from the egg onwards, to sea urchins, anemones, star-fish, seaweeds, marine shells, and the like. A fine specimen of the king crab is another noteworthy object. Then there is a case containing many showy examples of marine shells, both British and foreign, making an attractive and interesting display. Thanks to Mr. W. E. Brady, the museum is also in possession of an excellent collection of British land and fresh water shells. These include all the local British species, and in their almost infinite variety of colour and banding, justify the zeal and attention which so many have been induced to take in the subject. The insect collection contains an almost complete series of butterflies and the larger moths, the beginning of another of beetles, and interesting local examples of other orders. Of these it is enough to mention a locust caught alive at Wiltorpe during what was known as the locust year, when these immigrants were numerous all over the country, and caused no small amount of consternation and fear; and a very large wasp's nest from Stainbro' Hall. This somewhat hasty survey will give some indication of the high character of the natural exhibits which may be seen in the museum. And yet the half has not been told.

CURIOSITIES AND ANTIQUITIES.

Any reader of this article going round the Museum would overlook many of the subjects we have mentioned, and instead, see many others we have not so much as hinted at. There is, however, one department of the Museum we should not omit to mention, and that is the one devoted to curiosities and antiquities. Some of these are connected

with bygone Barnsley, such as one of the old bobbin winders, a cheese press dated 1781, from Cudworth, and a portrait in oils of old Harry Woodcock, the latter the gift of Mr. W. J. Guilar. Others are indirectly connected with the town, as a magnetic compass used during one of the Arctic expeditions in search of Franklin by Dr. Kane, a relative of the late Supt. Kane. Ancient pottery from Cyprus, the gift of the late Mr. James Fox; shells, bullets, and other relics of the siege of Paris, given by Mr. O. P. de Mirimonde; spring-gun, military weapons of various kinds, ancient and modern—these include Chinese bows and arrows, Maori clubs, Zulu assegais and shield. Here also should be mentioned an Ashanti war drum, and a large Chinese flag, the latter presented to the Society by the late Rev. Hy. Bowen Cooke, of Darfield. There is also an interesting display of coins, tokens, and medals.

There remains another feature of the Society's work which may fittingly be alluded to here, and that is the formation of an album of views of old and vanishing Barnsley. Localities once familiar to most of our older townspeople are gradually being transformed out of all recognition. The Society's photographers seize them before the hand of the destroyer is laid upon them, and now in looking through the collection they are brought back to the mind. In a society like the Barnsley Naturalist Society, where everything that is done is purely voluntary in character—whether it be in providing the means whereby specimens may be acquired and housed, or in arranging them when they have come into the Society's charge—the possession of a good heart has prompted the open hands of past and present members. Thanks to his great interest in its welfare, a former president, the late Dr. Lancaster, bequeathed to the Society the sum of £100 to be used for museum purposes, the last of many proofs of his devotion. Another former president, happily still with them, whose benefactions to the society have not hitherto been alluded to, is Mr. B. Turner, whose name is identified with its fortunes in many ways, and will ever be remembered with love and gratitude.

THE ROYSTON BOULDER.

Many of our readers will perhaps be interested to know a little of the history of the granite boulder which forms one of the attractions in Locke Park. It was at the request of the Barnsley Naturalist and Scientific Society that the stone was removed from Royston to the park, and at a later stage the Park and Lighting Committee granted a site and undertook the removal. This was in 1899. The boulder is now the town's property, and a few details of what is at present known to science about the distribution of erratic boulders in this county will be of interest. Mr. J. H. Howarth, F.G.S., secretary of the Boulder Committee of the Yorkshire Naturalists' Union, in an address on "What we know of Yorkshire Boulders," before the Leeds Geological Association, of which he was president, said the question of erratic boulders had for many years received constant attention from the Boulder Committee of the Yorkshire Naturalists' Union, under the active secretaryship of the late Mr. Thomas Tate, and the problems incidental to it had received a great stimulus from the energy and observational genius of Mr. Kendall. Yorkshire boulders came to us by three main routes: (1) Down the Vale of York from the Tees, and down the East Coast by the way of the Tees mouth; (2) over the Pennine Range from Lancashire into one and probably two of the South-West Yorkshire river valleys; (3) from Southern Norway and Sweden across the sea. Each of the routes is sufficiently marked by the presence of distinctive boulders, and from petrological examination the districts have been traced from which they came, and in a few cases almost the exact spots. The Tees route is marked by boulders of Shap granite, and of rocks from districts lying north of a line drawn from Whitehaven and Cocker-mouth to Coniston. The dispersion of Shap granite is an object lesson in that complicated character of glacial phenomena. It is fortunate that the rock is distinctive and unmistakable; or that vagaries of its wandering specimens would be beyond belief. From a small outcrop of about two miles by one (at Shap in Westmoreland) it has travelled east.

Stainmoor by a pass 1,440 feet high, having broken off, and carrying along masses of Shap and other rocks, passed down the Tees valley, and, in part, right out to sea off the Tees mouth, as observations have shown, and was then deflected down the Yorkshire Coast by the Norwegian ice. This Tees glacier was dammed back by the Scandinavian ice, but what happened in mid-Tees is not quite clear; except that a part of the Tees glacier either (1) driven by the opposing glacier, (2) deflected by the Cleveland hills, or (3) by coming under the influence of other contemporary glacial movement, turned south through the Vale of York, depositing its distinctive Shap boulders en route. Much yet remains to be done before all the points of the evidence can be made clear. After describing in detail the route of the Lancashire glacier and its entering into Yorkshire by the Calder Valley above Todmorden, and also dealing with the Scandinavian glacier, Mr. Howarth said great interest attached to Balby, near Doncaster, where an anomalous patch of boulder clay, 40ft. thick, is found, with specimens not only of rocks from the Lancashire route, but also of Shap granite by the Tees and Vale of York route—evidently a meeting place of boulders from the north and from the west. Royston, near Barnsley, was even more remarkable, for it suggested a meeting place for boulders from all three routes. Quartz, porphyry, and Shap granite indicate the Tees route, Emeraldale granophyre and Borrowdale plumbage suggest the Lancashire route, while glassiferous glints and certain red and grey granites, which are not British, suggest a complication of the remains of the coast, and of the materials from the Norwegian routes. The Shap granite at Royston, there referred to, is shown in the fine boulder removed to the Park, and is the only example of this distinct rock which has yet been discovered in the immediate district, and rivals in size many of the Shap boulders found much nearer the source of the glacier. Roughly speaking, it measures 40x30x24in., and its weight has been estimated at 25cwt. Some time ago the British Association recommended its removal to the Park, an object which was attained, to the

pleasurable satisfaction of scientists.