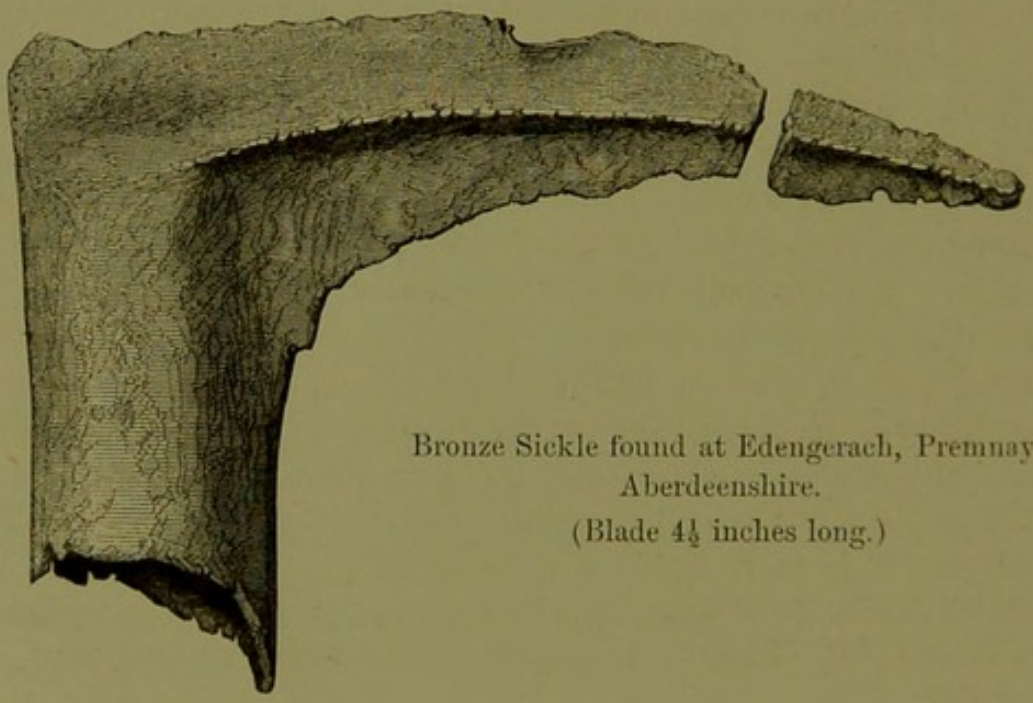
Notes on bronze sickles : with special reference to those found in Scotland / by John Alexander Smith.

NOTES ON BRONZE SICKLES; WITH SPECIAL REFERENCE TO THOSE FOUND IN SCOTLAND.

By JOHN ALEXANDER SMITH, M.D., Sec. S.A. Scot.

Among the various antiquities brought under the notice of the Society at this meeting, there is a small curved blade of bronze, which belongs to the class of implements believed by antiquaries to have been ancient sickles. It is exhibited by Robert Farquharson of Haughton, Esq., and was found on the farm of Mr John Brown, Edengerach, in the parish of

Premnay, Aberdeenshire. This bronze sickle is of a brownish colour, rather a rough casting, and is formed of a yellow-coloured bronze. It consists of a rounded tubular socket for a wooden handle, from the upper part of which a flattened and slightly curved blade, rapidly tapering to a point, projects transversely outwards at nearly a right angle. The blade measures 4¼ inches in length from the upper angle of the socket to its pointed extremity, and 2¼ inches from the same angle to the broken end of the socket, which is imperfect, and probably measured



Bronze Sickle found at Edengerach, Premnay, Aberdeenshire.
(Blade 4½ inches long.)

about 3 inches in length when entire. The socket is oval-shaped, in the same plane as the blade, and measures about an inch across in its longest diameter. The usual rivet-hole, which occurs in all bronze sickles, is wanting in this specimen, that part of the socket being apparently broken away. The blade of the sickle is sharp on both its edges, and is ornamented as well as strengthened by a projecting rib running on each side along its centre, to the point of the blade, which has been unfortunately broken across.

From the apparently unusually small size and slender character of this implement, it is a little difficult to conceive that it was intended to assist in cutting down the patches of grain of even a very small population, and it may show us how very scanty the grain crops must have been in the early times when such sickles were in use. (The preceding woodcut gives a good idea of its shape and general character.)

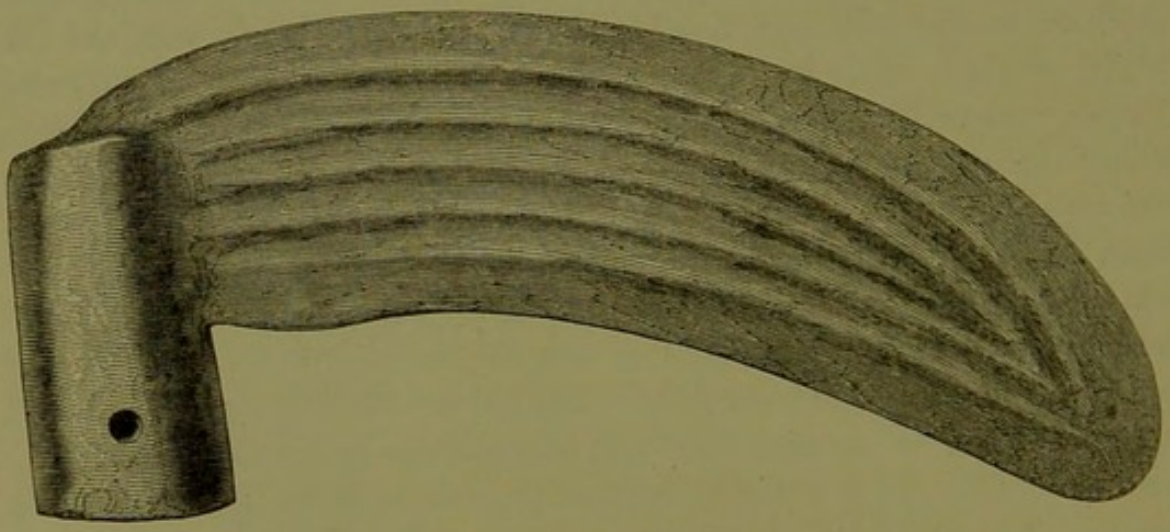
Through the liberality of the Literary and Antiquarian Society of Perth, and the politeness of its honorary secretary, Mr William Brown, I am able to exhibit another specimen of a bronze sickle, somewhat different in character from the one now described. It is larger in size, and the blade, which is more bent downwards at the point, is both broader and longer, measuring about $6\frac{1}{4}$ inches from the upper angle of the socket, along the margin of the blade, to its somewhat rounded extremity; the tapering socket, which, however, is shorter than the former, measures from the same angle rather more than $1\frac{3}{4}$ inch to its open and rounded extremity, the socket being three-fourths of an inch across. A rivet-hole passes through both sides of the socket at the distance of half an inch from its open extremity. The curved blade is broad and flat, being $1\frac{3}{8}$ inch in greatest breadth; it gradually diminishes in breadth, and terminates in a rounded extremity, and is sharp along both its edges. The blade is ornamented and strengthened by a series of five slightly projecting ribs or lines, one running along the centre, and a pair on each side of it, which run forward to meet their fellows in a pointed termination towards the extremity of the blade. (See the annexed woodcut, where it is figured nearly to the same scale as the preceding.)

This sickle is a better finished casting than the one first described, and the lines left by the joining of the halves of the mould still project slightly along each side of the socket, on the same plane as the edges of the blade. No instance of any mould for casting these bronze sickles has yet been discovered, at least so far as I am aware. The metal of which this sickle is composed shows a rich brown colour externally; but where the surface has been slightly scratched, it exposes the reddish-yellow colour of the bronze below.

It was dredged up from the bed of the river Tay, near Errol, in the year 1840, and was presented by Bailie Graham to the Museum of Perth.

Professor Daniel Wilson notices it in the second edition of his "Prehistoric Annals."

Bronze implements of this kind were at one time supposed to have been pruning hooks, and imaginative antiquaries wrote of them as being probably Druidical, and used for cutting the sacred misletoe. Of late years, however, they have been considered to be simply sickles for cutting grain, and have had wooden handles, it has been supposed of a



Bronze Sickle found in the Tay, near Errol, Perthshire.
(Blade 6¼ inches long along its upper margin.)

considerable length, to which they were riveted, approximating them somewhat to the scythe in their character and use.

Dr Wilson, in his valuable work to which I have referred, points out the fact of a bronze instrument, apparently of a somewhat similar character, being mentioned in Sinclair's "Statistical Account of Scotland," vol. xvi. p. 206, as having been found in cutting peat at Ledberg, in the county of Sutherland, in the year 1790. It was presented to the Earl of Bristol, then Bishop of Derry, and was stated by him to be a Druidical pruning hook, similar to some found in England.

These very few instances include all the examples of this class of relics which, as far as I am aware, have yet been found in Scotland.

There is another example of a bronze sickle in the Museum of the Society; which, however, was found in Ireland. It corresponds in a general way with the one found in the Tay, but is less in size, the metal being of a brown colour. The tubular socket is tapering, slightly flattened or oval in shape, and is pierced with a rivet-hole; it measures 2 inches in length. The blade is 1 inch in breadth, and is broken across the point, it has probably been about 4 inches long; a smooth rounded belt or projection runs from the top of the socket along the middle of the blade; on each side of this belt there are two ornamental parallel projecting lines, and beyond these are the edges of the blade, which are sharp. At the top of the socket a short ornamental curve, with projecting border, rises up to join the upper edge of the blade. This sickle formed part of the collection of Irish antiquities made by the late Mr John Bell, Dungannon.

Mr Franks, of the British Museum, when describing bronze sickles in the "Horæ Ferales," says,—"They are rare objects in all countries, but are less rarely found in Ireland than elsewhere. There are eleven specimens in the Royal Irish Academy, and four in the British Museum, but all are Irish."

In the important Catalogue of the Royal Irish Academy, these sickles are shown to form three apparent groups or varieties—

First, those with the tubular socket pierced through and through, forming a haft hole for the handle, and with a short and slightly curved or angular blade springing laterally from the socket.

Next, those more allied to the specimens I have been describing, with sockets closed above, and lateral blades, some of them, however, more ornamented in character; this shape is stated to be the type of the majority of the sickles found in Ireland.

And, lastly, there are others with a more curved and narrow blade, springing upwards from the top of the socket or handle, and thus more resembling in shape the much larger iron sickles used by the reapers in our own day.

Few specimens of bronze sickles have been found in England. [I exhibit diagrams of these examples.] One, a simple bent blade, sharp on one of its edges, found in Wicken, Cambridgeshire, is referred to by Mr Franks, and is figured in the "Archæological Journal," vol. vii. p

302. Another, found in Alderney, also somewhat peculiar, is figured in the "Journal of the British Archæological Association," vol. iii. p. 9.

The meagre character of the list now given shows the rarity of these bronze relics, which tell us of the small crops and laborious agriculture of the early inhabitants of Britain; some of them, however, show at the same time, by their elegant forms and ornamental character, the great skill of the workers in metals at the same early period.

In the lake dwellings of Switzerland, those great depositories of ancient remains, we find, as Dr Keller informs us in his valuable Reports, that, at various sites, sickles made of bronze have been discovered. They differ, however, somewhat from those found in the British Islands, being generally more regularly curved in their outline, and more flattened in character, the blades being flat on one side, and having frequently several raised lines or ridges on the other, which run somewhat parallel to the outer edge of the blade.

None of these sickles seem to have hollow or tubular sockets for the insertion of the wooden handle, one extremity of the blade being simply broader and less pointed than the other, and it is commonly grooved, the better to adapt it for being apparently fixed to the extremity of a wooden handle, to which it has been attached by nails, passed through the rivet-holes which are commonly pierced through that extremity of the blade.

The size of these sickles is apparently much about the same, or perhaps rather larger, than those found in Great Britain or Ireland. The average of those found in considerable numbers at Nidau and Lattringen, seems to be about $5\frac{1}{2}$ inches in length, in a line drawn from point to point, across the extremities of the blade; and the breadth in the middle of the blade, from $1\frac{1}{2}$ to $1\frac{3}{4}$ inches; while one found at Estavayar measured $6\frac{3}{4}$ inches across, from one termination of the blade to the other.

Among the collection of implements found at Marin, one of these piled sites on the Lake of Neuchâtel, sickle blades were discovered, formed in this instance of iron. Some of these resemble considerably in character those formed of bronze, found in what are considered to have been more ancient sites. These iron sickles are generally of larger size than the bronze sickles; they are less curved in form, and have one extremity somewhat produced into a pointed termination or tang, evidently

for the purpose of being fixed into a handle of wood, almost like those in use at the present day; and, indeed, some have been found with handles attached to them in this way. One specimen of a sickle has its cutting edge finely serrated.

Iron sickles of a closely corresponding character, with rivet-holes through the tang for attaching them to a wooden handle, have been discovered in the peat mosses of the north of Europe.

In this rapid enumeration, I have gone over the principal changes that have been observed in the form and character of some at least, if not most, of the ancient varieties of this important agricultural implement, the sickle. From those found in our own country and in Ireland, at once the smallest in size, and differing most in shape from our modern iron sickles, and also, perhaps, among the most ancient examples. Next those of the Swiss lake dwellings, first of bronze, and lastly of iron, some of the latter bringing us down almost to the style and character of the iron sickles in use in our own day; which again, as manual labour becomes more and more valuable, seem before long destined in a great measure to be superseded, or rather, I should say, are already superseded, except in our remoter districts, by the more complicated and powerful reaping machines of the advancing science of improved agriculture.

Roy. Coll. Physicians
from the author

28 Feb. 1843