ART. XX.—Click Mill at Buttermere and Buttermere Notes. By Nicholas Size.

Read at Carlisle, July 2nd, 1935.

In Buttermere village, at the point where the ordnance map shows a change in the name of the Sail Beck to the Mill Beck, there is a curiously carved rock showing a large crescent or segment of a circle, the diameter of which must have been about seven feet. It is balanced on the other side of the beck by a broken carving showing a small segment of a similar circle.

The two together are said to mark the site of a click mill built across the little gorge through which the beck runs. Each circle contained a shaft with a set of paddles which revolved with the flow of the stream running between them. The shaft went up to the milling chamber above, and each went through the nether millstone and operated the upper one, which would rotate perpetually by direct action, whether in use or not.

The Carvings are about eighteen inches deep, and, as there has been a natural fall immediately below them, the paddles (working horizontally) would not be impeded by slack water, as it would get away rapidly; and the two sets of paddles would occasionally click together, hence the name by which such mills were known in Scotland and Ireland. I cannot learn of any such mill in England, but have seen the remains of one at the Isle of Man, and have drawings of others in Orkney and Shetland.

There is one still working at Kilshanwy, near Galway in Ireland, and three still working in Norway. Their merit is that they are very simple and do not get out of
order. Ours at Buttermere was dismantled about 1735, when the miller's house was purchased for a Parsonage, and for three years was occupied by "Wonderful Walker," who obtained a licence for it as an inn.

This type of mill was probably invented in China in very remote times, as similar remains to ours have been found along the Siberian trade route, Thibet, Turkestan, Persia and various out of the way parts of Europe, so it was almost certainly introduced by the Norwegians
who populated these valleys after the withdrawal of King Dunmail.

The drawing on page 193 is taken from Gandie's *Antiquities of Scotland*, page 260. The upper millstone is attached to the spindle of the water wheel (probably consisting of eight paddles), and the grain probably descended through a hopper into the centre of the upper stone. This would operate automatically, but, as the grain would probably be rye or oats, it would need stoving before being put in.

Such mills were extravagant of water-power, but would work whether the stream was high or low.

**FORTIFIED SHELTERS NEAR BUTTERMERE.**

On the appended map are marked the positions of a number of fortified shelters in the driest part of the valley of the Scale Beck, near Buttermere.

I have made various diggings in the locality to see if they could possibly be the remains of an ancient Bloomery, as there is a deal of iron ore close at hand; but no traces of ash, cinders or charcoal could be found, and, as the word "scale" is derived from the Norwegian "scali" a shelter, and the spot is one which would have been chosen for fortification in the days when Buttermere Valley was a stronghold, it is generally supposed that they were either small forts or fortified shelters. They are not easily seen in the summer as the site is covered with bracken, but in the winter they can readily be inspected.

**BRITISH OR NEOLITHIC HUT CIRCLES AT BUTTERMERE.**

Every winter a series of circles and segments of circles can be seen looking north from a spot near the top of the road to Newlands Waterfall and Pass. These cannot readily be seen during the summer, but the most
conspicuous are on the lower half of Knott Rigg. Others are to be seen across the beck on the site marked "B," and, as both face south, they are no doubt in a suitable position for a village. Possibly they are the remains of British pit-dwellings, but in both cases the sites are sloping, and I am not in a position to decide which group of pre-historic remains they belong to. The village has evidently been an extensive one.