

II.

ON THE USE OF THE SPINDLE AND WHORL BY THE FISHERMEN OF THE PRESENT DAY. BY W. IVISON MACADAM, F.I.C., F.C.S., &c., LECTURER ON CHEMISTRY, SCHOOL OF MEDICINE, EDINBURGH.

One evening during the month of June 1880 my attention was directed to an Eyemouth fisherman who was twisting hairs by means of a stone. On enquiry I learned that the threads or cords he was making were known as "imps," and that the stone he was using was an "impstone." I found that it was customary for the fishermen to make these "imps," and that a stone was the usual weight to employ, but that pieces of lead and other heavy substances were also used.

The stones are obtained from the beach, are flat and water-worn, and have a hole bored in the centre. Into this hole is fixed, by means of lead, wood, or cork, a hook by which to attach the threads. The "imps" are the hair lines to which the fishing hook is fixed so as to allow of its being attached to the "shood," and by that to the "cord" employed in "long line" fishing.

I have procured from Eyemouth five of these "impstones," of which the following is a description.

No 1 is a rough circular stone, measuring $3\frac{1}{2}$ inches by $3\frac{3}{8}$ inches across and $1\frac{1}{2}$ inches thick. The central hole is bored through the stone, and the iron hook wedged into it. Weight 18 oz.

No. 2 a rough water-worn stone $3\frac{1}{4}$ inches by $3\frac{3}{8}$ inches across and $1\frac{3}{4}$ inches thick. The hole in the centre is not quite through the stone, and the hook is attached by lead. Weight $16\frac{1}{4}$ oz.

No 3. A circular piece of lead $2\frac{5}{8}$ inches across, and with the iron hook fixed in the centre. Weight $14\frac{1}{2}$ oz.

No 4, similar to No. 3, but $2\frac{3}{4}$ inches across. Weight $17\frac{3}{4}$ oz.

No 5 is made of baked earthenware, is circular in form, and measures 3 inches across. It is one of a cargo which was landed at Eyemouth for the purpose of being sold to the fishermen to weight or sink the herring

nets, and was intended to supersede the stones or lead now used. Not meeting with a ready sale for the purpose intended, a large number of



Fig. 4. Impstone from Eyemouth.
($3\frac{1}{4}$ inches diameter.)

them were disposed of for "impstones," and many are now regularly employed as such. Weight $10\frac{1}{2}$ oz.

I am indebted to Mr G. Goudie, a member of this Society, for informa-



Fig. 5. Leaden Whorl for Imps.
($2\frac{5}{8}$ inches diameter.)

tion as to another variety of "impstone" used in Shetland. It is made by taking a piece of wet peat, passing a wedge of wood through it, and then drying the peat.

During the summer of 1880 I made enquiry on the west coast as to whether the same practice was carried on there, and found it was. One old fisherman on Loch Fyneside said the only "impstone" he ever had was his hat or bonnet, and he there and then practically demonstrated the manufacture. A fishing hook with the gut on was run through the top of the bonnet, the gut being afterwards twisted round the little woollen ball and the machine was completed.

The horse hair of which the "imps" are made is carded with hand-cards like the old woollen and flax cards. These cards are made of a flat wooden board 6 inches by 4 inches, and to which is fixed a piece of wire cloth similar to that employed in dressing "tweeds." The apparatus is generally furnished with a wooden handle. Occasionally, however, a more rude process is adopted, the hairs being carded by drawing them through the teeth, but the "imps" so made are not so strong as those made with the cards, the hair being very liable to be broken by the teeth.

Amongst the herring fishers of the west coast of Scotland the spindle and whorl is in common use. The nets, of which a boat may carry from sixty to seventy or eighty, of 25 to 30 fathoms each, are attached to a strong "rape" or rope by means of thinner cords known as "ozzels." These ozzels are first fixed, generally by the women, to the nets every five "masks" or meshes, and are afterwards twisted round the "rape" by the men, great care being necessary to allow a certain amount of slack, known as "hoppen," generally 6 to 7 or even 9 fathom per net, so that the net may not be broken or the fish lost whilst being taken into the boat. The "ozzels" used on the east coast are of hemp or cotton, and are either bought ready made or are constructed out of the old "long-lines" by untwisting the strands of the cord in such a way that they will again take the twist on being released. They rot quickly and are difficult to bark. An attempt has been made to preserve them with creasote, but such "ozzels" are not in favour with the fishermen.

On the west coast of Scotland wool is invariably employed, and the "ozzels" are spun by the women with the spindle. The spindles in use are of two forms. The first of these consists of an elongated cone of wood,

the lower end being the thicker, and acting as the weight. This instrument is known as the "persaid" (from *per*, a point, and *said*, an arrow, the word meaning *arrow-point*), and is so called from the notch or arrow at the top, and to which the wool to be spun is fixed. The cord as it is made is wound round the spindle, and the ball is afterwards pulled over the top.

The second form consists of two parts, first the spindle, and second the whorl or weight. I have a very fine example of this latter class obtained from Strachur, Argyllshire. The wooden spindle is $17\frac{5}{8}$ inches long and tapers to both ends, being 1 inch thick at the centre and $\frac{1}{4}$ inch at each end. The top is armed with a notch, to which the wool is fixed during spinning. The whorl is made of schistose talc found in the district, is 2 inches across, and has a hole bored through the centre to admit the spindle. The whorl is doubly interesting in so far as it is of modern manufacture, having been made this summer. The old one was lost and another was made to take its place. Weight $2\frac{3}{4}$ oz. The apparatus was in use up to the middle of August 1880, when it fell into my possession. This variety of spindle is called a "dealgan" (pronounced "thalachan"). The cord is rolled round the spindle as it is made, and afterwards slipped off the end by removing the whorl. The women regularly employ the "eingail" (pronounced "quēckel") or rock, which is generally a rough piece of stick held under the arm, to which the "olein" or "cloidh" (wool) is attached after having been sorted with the "clad" (pronounced 'clat') or cards.

I have brought these facts before this Society for the purpose of recording the employment of old instruments now seldom seen or heard of. I am inclined to believe that the use to which the spindle and whorl is now put is amongst the first for which it was formed; for few industries, if any, are older than that of the fisherman. The spindle and whorl are admirably adapted for the purposes to which they are now put, and it is difficult to see how any improvement can be made on them. No loom yet invented can twist "ozzels" so strong or so well as the spindle, and no spinning wheel can undertake the work.