VII.—THE FLAIL AND ITS VARIETIES.

By T. M. Allison, M.D.

[Read on the 1st day of June, 1904.]

In these days of threshing by steam, when even horse-driven machinery is out of date, it is difficult to realize that a century ago the world's corn supply was threshed by hand of man or foot of animal. Yet even fifty years ago, the corn supply of England was commonly threshed in the barn with the flail, whilst that of Egypt was being trodden out on the open-air threshing floors, as in the days of Pharaoh. And in Algiers to-day, mules still tread out the barley, as the oxen did in Egypt.

THE FLAIL.

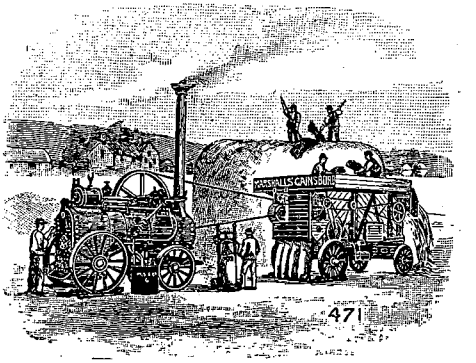
The threshing machine, invented by Meikle of Dunbar, about 1786, was at first turned by hand, or by tread-mill, and the flail had gradually to give ground, and at last it fled before the advent of horse machinery. Steam threshing in turn emptied the 'horse-house,' and left it and the older barn to the bat and the bird. The steam thresher passes both buildings and works in the stackyard, and the whirr of the old-time threshing machine and the whirling of the flail have passed away.

The misfortune of machinery is that it kills the picturesque. It has left us the music of the hammers alternating on the anvil; and the sparks flying across the smithy before the blows of the blacksmiths. But it has taken away the flinging of the flail,

the swinging of the souple, the alternate thwack, thwack, on the threshing floor, and the chaff flying before the sturdy strokes of the thresher and his mate.

Yet within living memory the sight was a common one, and in isolated districts in Great Britain, on little holdings, and where the steam thresher does not pay, flails are still to be found. They are manufactured for sale, and are in pretty general use in parts of Ireland now. It is anything but extinct among small growers on the Continent, whilst our friends the Japanese have a flail at present for threshing rice.

The flail, then, is an agricultural implement employed for beating out the grain of wheat, oats, barley, and other crops. It consists of a handle or handstaff, and a beater or souple, united by a flexible joint. Two sticks and a strip of leather is its simplest form.



THE STEAM THRESHER.

It was used by grasping the handstaff in both hands one above the other, elevating the implement, whirling the souple round behind the head, and bringing it heavily down on the heads of grain. It had therefore two movements, the whirling and the striking; and flails may be divided into two classes, by the way the two movements are effected. In one class the construction permits of both the whirling and the striking actions, and the handle is firmly gripped. In the other the joint only allows of the direct or striking movement, and the whirling is effected by revolving the handle in the hands.

Two threshers, striking alternate blows, usually worked together, and the occupation necessitated considerable skill, as clumsiness imperilled the hand or head of the user and set up dangerous recoil if one tool struck the other. Some threshers could change hands after every stroke and deliver the next stroke the opposite way. On the western border of Northumberland flail threshing was referred to as 'berrying' or 'burying.'

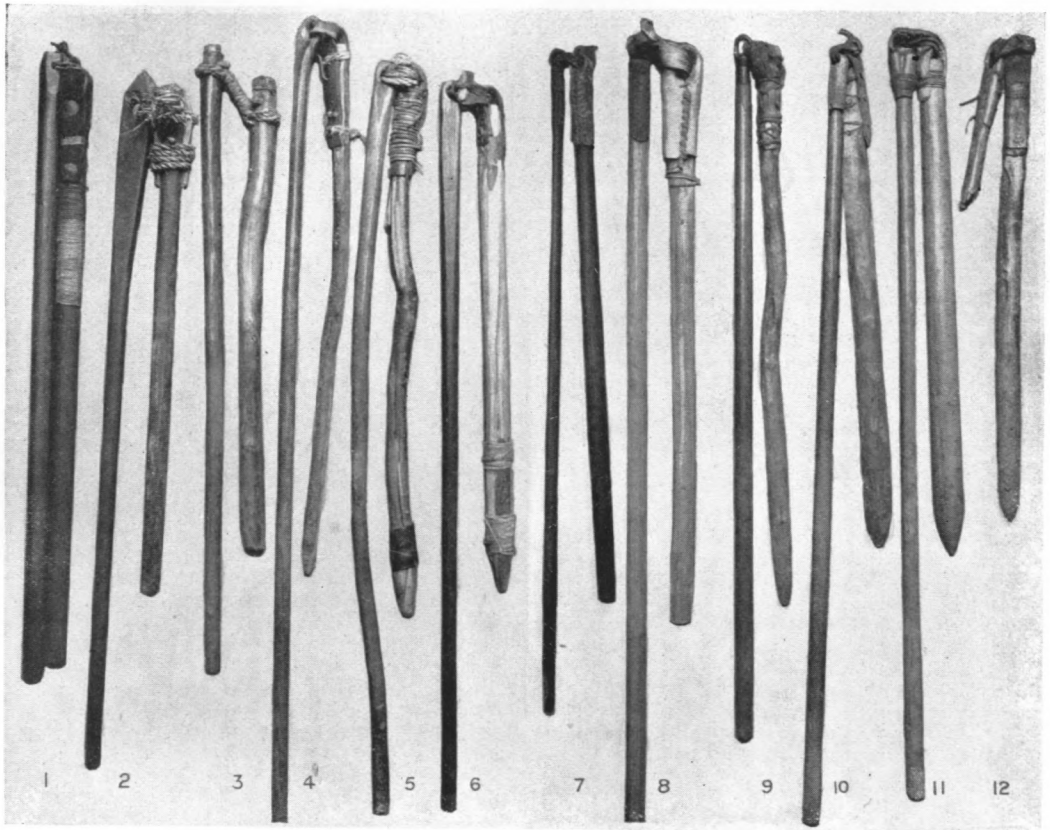
The flail is mentioned by Milton, Shakespeare, Burns and Oliver Wendell Holmes, but is not named in Scripture. It is known in Latin, Anglo-Saxon, old French and other languages, and I have been able to collect the following local names: 'suist' in Gaelic, 'flinging-tree' in Scotch, 'threshall' in Hampshire, 'drashall' in Devonshire, 'the sticks' in Weardale, and the 'frail' in southern Durham and Yorkshire.

The handle of the flail was known throughout England and Ireland as the 'handstaff,' as the 'haft' in Scotland, as 'lorg' in Gaelic, and as 'collop' or 'collopon' in original Irish.

It was of round dressed ash, four to six feet long, and about an inch and a quarter in diameter. It was about nine inches longer than the beater or souple, except in county Clare, where it was shorter. The top, sometimes straight or inclined backward, was perforated; or it ended in an iron swivel, hasp, or ring; or it had an I-shaped pin, or grooves, to aid the fixing of the wooden, horn, or leather caps or thongs (parts of the joint) as the case might be. (See page 98.)

The second stick, or souple, was called the 'beater' in Hampshire, the 'soople' or 'swingle' in Northumberland, the 'swingle' in Kent, the 'swipple' in Yorkshire, 'buailtein' in Gaelic, and 'buailtan' or 'booltan' in old Irish. In Devonshire the souple was named the 'flail' and in Perthshire the 'threshing-tree.' In old English it was 'swingle-tree.'

It was nine to twelve inches shorter than the handstaff. In county Clare it was longer. It was of hazel, holly, blackthorn,



1—6. FLAILS NORTH OF TYNE. 7—12. MID-ENGLAND AND SOUTH COUNTRY FLAILS

From Photographs by Mr. Parker Brewis.

1 Scotland (North-East).
2 Do. (Glenlivet).
3 Do. (Orkneys).
4 Cumberland.
5 Northumberland (Whitfield).
6 Do. (Hexhamshire).
7 Yorkshire (Leyburn).
8 Lincoln-hire.
9 Kent (iron swivel).
10 Somerset } (wood swivel).
11 Do. }
12 Devonshire (horn swivel).

The flails north of the Tyne resemble those of Ireland, and have perforated handles. The Orkney handle is pegged. The mid-English forms, with staple-topped handles, resemble those of Saxony. The south country flails have swivel-topped handles, and resemble the flails of Norway and Sweden.

whitethorn, oak or ash, and was thicker and stouter than the handle. It terminated at the free end in a point, knob or root, and to prevent splintering the bark was nearly always left on. The attached end of the souple was furnished with grooves, holes or pegs, etc., to affix the wooden or leather caps or thongs, and occasionally it was perforated. In England, as far as I know, the souple is always furnished with a leather cap, but in Ireland and Scotland a wooden cap preceded the leather one, and in both a groove preceded the cap. Hence grooves and wooden caps, followed by those of leather, seem to be progressive steps.

The joint varied from the simplicity of a single thong of leather to the complexity of a horn or wooden cap or iron swivel on the handle, a wooden or leather cap on the souple, and a thong uniting the two. (See page 99.)

It differed greatly in different localities, and I have been fortunate enough to obtain several varieties of flails, which illustrate the local differences and exhibit the joint that permitted of both the whirling and the striking movements and that which only allowed of the striking. The latter compelled the revolving of the handstaff in the hand.

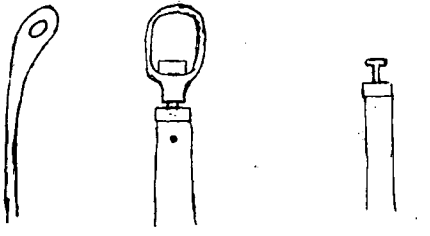
The joint consisted of two or more of the following parts:—

1. The terminations of the handstaff and souple, and their modifications.
2. 'Caps' of wood, horn or leather, fixed by the 'lashing' (laces), etc., to the handstaff, souple, or both.
3. 'Thongs' of hide or leather, uniting the two.

The 'caps' (in England and Ireland), 'capping' (Cumberland), 'hats' (Scotland), 'heudin' (Northumberland), 'cabal' (Devonshire), or 'carbines' (old Irish), were strips of wood, horn or leather, both ends of which were fixed to the same piece of wood. These strips, bent on themselves, formed loops projecting some two inches beyond the end of the wood, and were most

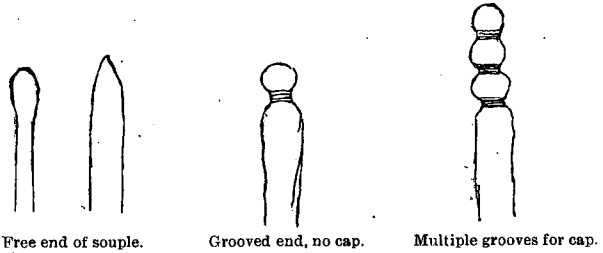
ingeniously attached by the 'lashing,' *i.e.*, slender straps or laces, by lapping like a cricketer's bat, or by sutures. These were assisted by grooves, pegs, holes or nails, in order to prevent the caps from slipping upward or sideways, both dangers having to be guarded against. Hence two kinds of fasteners were often employed. The caps were rigid when of wood, horn or horse-hide. They were flexible when of sheep skin or white leather.

The thong, 'hudden' (Perthshire), 'hanging' in Cumberland, 'couplin' in Northumberland, 'tie' in Ireland, 'midulee



Perforated top. Iron swivel. I-shaped pin.

TERMINATIONS OF THE HANDSTAFF.



Free end of souple. Grooved end, no cap. Multiple grooves for cap.

TERMINATIONS OF THE SOUPLE.

in old Irish, was of sheep or eel skin, or of some other tough and elastic material. I have heard of some strange substances being used. The thong differed from the cap in its ends being affixed to different parts of the joint, and it might be single, or doubled, or passed several times for safety. It was most cleverly split, threaded, knotted, pegged and tied to prevent slipping.

1.

2.

3.

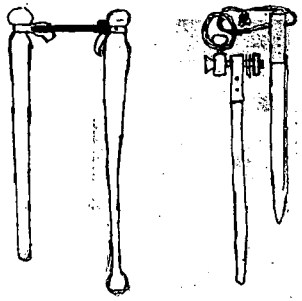
1. SCOTCH FLAIL (Blairgowrie, Perthshire). This form is common to Scotland (except Orkney), Cumberland and Northumberland.

2. SCOTCH FLAIL (Glenlivet), with perforated handstaff, straw tie and wood cap.

3. CUMBERLAND FLAIL, with perforated handstaff, similar to flail of Northumberland.

The following varieties of flails depend upon differences in the joint, material, size, etc.

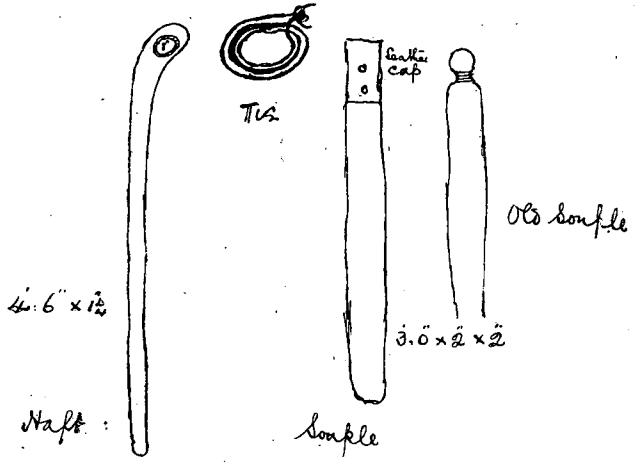
In Scotland (Perthshire), the handstaff, or 'haft,' inclined backward at the top, and had one large perforation. It was of ash, oak, or larch, and from three feet nine inches to four feet six inches in length. It was revolved in the hands.



A simple joint. A complex joint.

VARIATIONS IN THE JOINTS.

The souple, or 'threshing-tree,' was three to fifteen inches shorter than the haft, and of oak or birch, rarely fir. It was provided with a leather cap or 'hat,' fixed by a lace passing through two holes in the leather and the souple, and later by iron nails. In some cases the cap was dispensed with and a groove substituted. The souple under the cap was wedge-shaped. The thong passed three times through

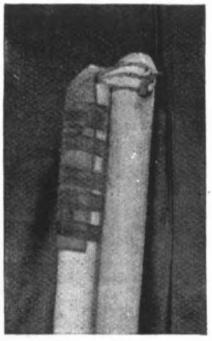


SCOTCH FLAIL.

the perforated top of the haft and the hat on the souple, and was then tied. It was termed the 'hudden.'

CUMBERLAND FLAIL. The description of the Scottish flail applies generally to that of Cumberland.

The handstaff was five feet long, of ash, dried in the loft above the kitchen. It was straight or inclined backward at the top and perforated, and was revolved in the hand.



CUMBERLAND FLAIL.

The souple had a 'capping' of sheep skin, undressed at first, and had two wooden pegs, which passed through both the souple top and the capping, and aided the fixing of the cap by the 'lashing' or leather strap.

The thong or 'hanging' passed through the perforation and the capping once or several times, and its end was slit and a wooden peg inserted in the slit to prevent slipping. The peg was waist-like in its middle.

NORTHUMBERLAND FLAIL. I have looked up *Northumberland Words*, Mr. R. Oliver Heslop's valuable work, for a description of the Northumberland flail, which I have found difficult to obtain in Newcastle. The description (resembling closely the flails of Scotland and Cumberland) is as follows:—

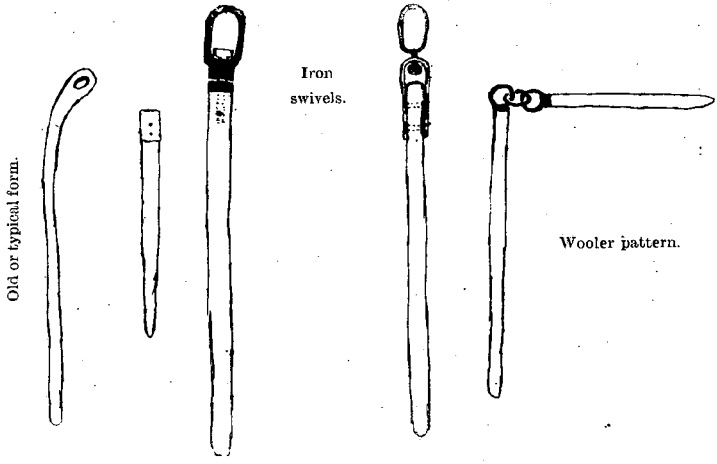
The handstaff was three feet nine inches to four feet long, with a smooth eye in the end.

The souple, or swingle, or soople, was three feet long with the bark on, and had a loop of cowhide or 'heudin,' the lashing of which passed through two holes in the end.

The 'couplin' or thong went through the eye and the loop on the souple.

In the Blackgate museum are two Northumberland flails, which are evidently examples of development, as they possess iron swivels instead of the perforation in the handle. These swivels give the whirling as well as the striking movement, and are there-

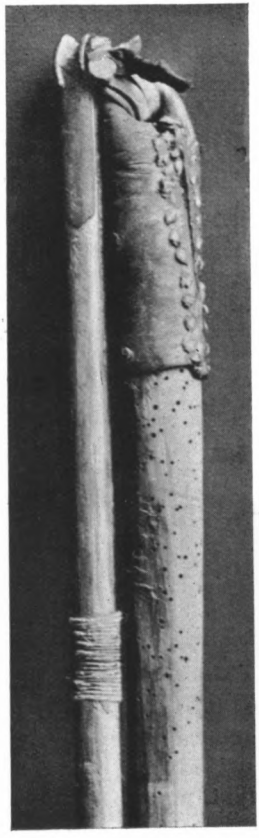
fore an advance on the perforated handstaff. It may be noted that the swivels, though both terminal, differ in their method of construction. I am informed that eighty years ago, in the Wooler district, three iron links, one on the handle, one on the souple and one at right angles to these, formed the joint, and that forty years ago these were replaced by the swivel, as more convenient. The chain joint may be a relic of the war flails of old, which had a similar construction.

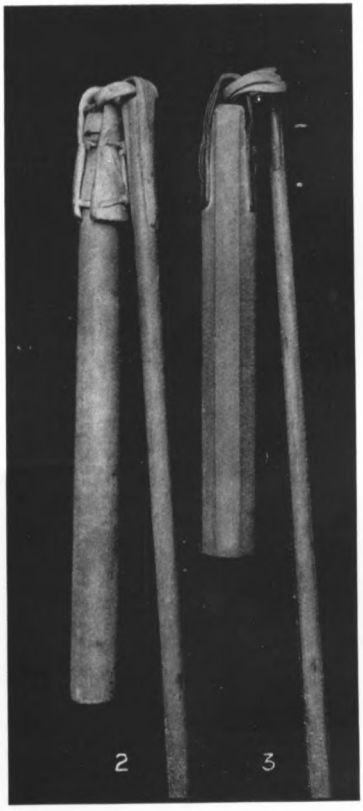


NORTHUMBERLAND FORMS.

I would direct attention to the difference between the vertical swivels of Northumberland and that of the next flail, which comes from the Sedgefield district of South Durham.

DURHAM FLAIL (Sedgefield district). This has an unusual feature, viz., an iron swivel which is lateral, not terminal like that of Northumberland, and which works on a shaft in its stem. Hence the swivel itself, apart from the rest of the joint, gives both the movements to the flail. The handstaff was of ash, with the bark on, which is unusual. It was four feet six inches





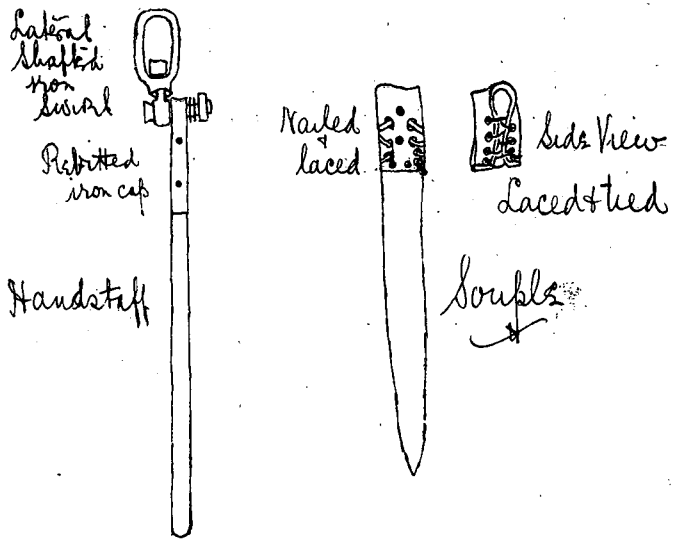
MID-ENGLAND FLAILS.

1. YORKSHIRE FLAIL (Leyburn) (typical of mid-English flails).

2 AND 3. SAXONY FLAILS (resembling those of mid-England).

(2 and 3 from photographs by Mr. Parker Brewis.)

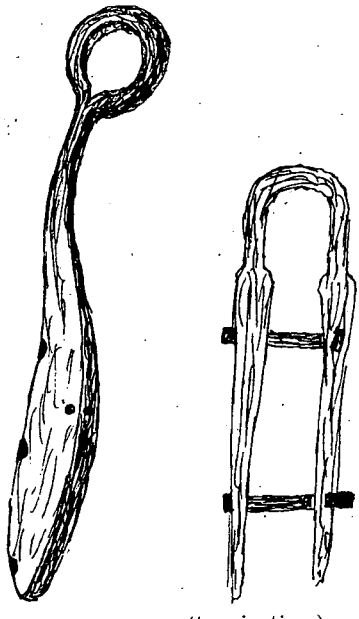
long, and ended in an iron cap (staple). A short shaft or bolt passed through the iron cap and through the enlarged stem of the swivel, and ends in a head. On the other side of the cap are two leather washers and a nut, to prevent slipping. The souple was of whitethorn, three feet three inches long, and had a cap of double leather, affixed with nails and laced at the side through eye holes. The thong had disappeared.



SEDGEFIELD FLAIL.

DURHAM FLAIL (Bradbury, near Sedgefield). Dr. Hunton has kindly procured for me the iron terminations of the handle and souple of this flail. That of the handle is old, that of the souple is new, made by the Bradbury blacksmith, who told me his grandfather was largely employed in making these joints. It is strikingly distinct from the flail of Sedgefield, which place is only three or four miles away.

The handstaff terminated in an iron ring on a long curved neck, which inclined backward, and was probably an iron imitation of the wooden haft of the north. The neck below is hollow, with three central and two lateral nail holes to affix the pointed end of the handstaff.



BRADBURY FLAIL (terminations).

The souple terminated in an iron staple, ring-like above, and fixed by two rabbets to the wood.

The two connections were fastened together by a thong.

DURHAM FLAIL (Weardale district). It was termed 'the sticks.'

The handstaff terminated in an iron ring inclining backward, and attached by its forks running down the sides of the wood.

The hazel souple ended in a knob, or trimmed root, and had three holes in it and the undressed leather cap, for laces to pass through.

YORKSHIRE FLAIL (Cleveland district). This flail, or 'frail,' was very similar to that of Weardale. The souple was locally a 'swipple.'

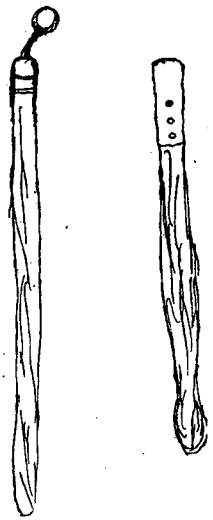
YORKSHIRE FLAIL (Leyburn district). This flail has been kindly lent to me by Messrs. Horne & Sons, of Leyburn, at the request of Mr. John Petch. It is so neat that it might be described as a lady's flail. (See No. 1, page 102.)

The handstaff is of slender ash, reminding one of a fishing rod. It is four feet six inches long, by one inch tapering to five-

eighths of an inch in diameter, and ends in a rebbetted staple with upturned edges, to avoid cutting the leather thong. The wood of the extremity is hollowed, so that the hasp and it form a ring.

The souple is two feet nine inches long, is shorter than the handstaff, and has no bark on. The cap is of leather, sewn and laced neatly at the sides and kept in position by two wooden pegs.

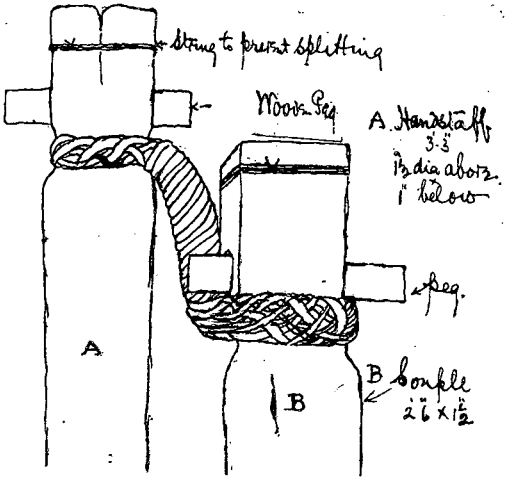
The thong of leather passes twice through the hasp and the cap, and one end is put through a slit in the other extremity. The free end is also slit, and a peg of leather, constricted in the centre, is passed through the slit, and the pull of the thong keeps it taut.



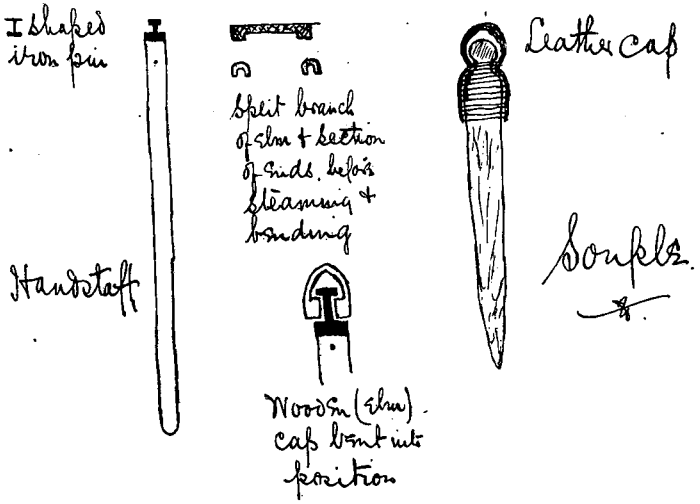
WEARDALE FLAIL.

WEST YORKSHIRE, LANCASHIRE, AND NORFOLK. The joint generally consisted of flexible caps affixed to the handstaff and souple, and a thong proper was not used. The flexible caps of undressed sheep skin were interlinked with each other and generally lapped like a cricketer's bat to the wood. When dressed leather came in, a small buckle was fixed to one of the straps to facilitate interlinking. Sometimes parallel flexible thongs of white leather (sheep skin) were used as depicted. These two methods illustrate the difference in definition of a cap and a thong. (See page 107.)

SUSSEX FLAIL. The flails of southern England have swivels of wood, horn or iron, wood swivels revolving on wood pins being the oldest form. A good example is reproduced on page 108, from Heighton, near Newhaven (W. Heneage Legge, *Reliquary*, November, 1905). I have two beautiful examples from Somerset of similar wooden swivels.

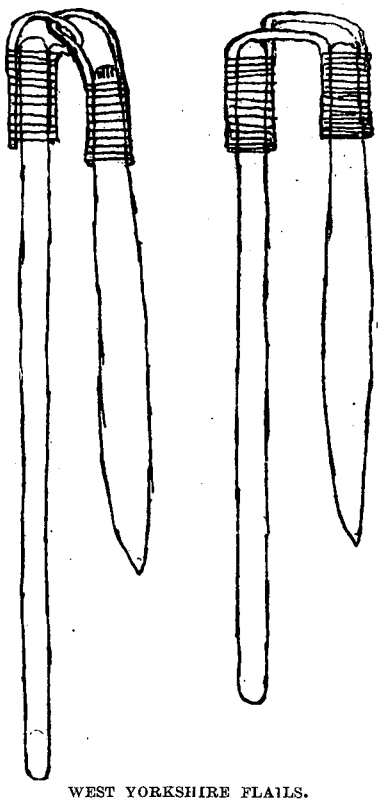


ORKNEY FLAIL.



HAMPSHIRE FLAIL.

SOUTH OF ENGLAND (Hampshire). Here the handle terminated in an I-shaped iron pin. A branch of elm, with the pith in, was taken and split, a portion of the middle was taken out, the pith cleared out of the ends, and after being steamed or boiled, preferably with the Sunday's vegetables, was bent and fastened by lapping to the iron pin, forming a revolving wooden cap. A thong passed through this to the leather cap of the souple.



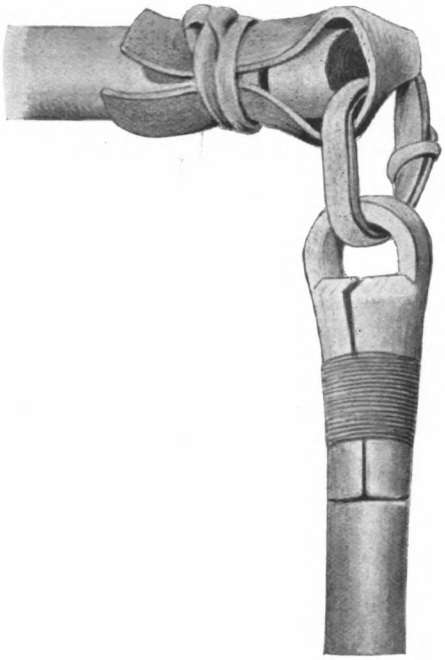
WEST YORKSHIRE FLAILS.

DEVONSHIRE FLAIL (Hatherleigh district). This flail, or 'drashall,' has the striking novelty of a horn cap revolving on the handstaff. Mr. Harris of the Haymarket has been good enough to have it sent me from Devonshire, and the worm-marks indicate great age.

The handstaff, or 'handle,' is of hazel, or 'nutall,' with the bark on, indicating its having been cut in winter. It was a foot longer than the souple. It terminated in the 'horn,' a striking device, doing credit to the county of Drake.

The 'horn' is a piece of the horn of the cow, some ten inches long by one-and-a-half inches broad. This is prepared and bent into a cap, its hollow sides fitting the round handle top closely. Three shallow grooves are cut round the wood top about an inch apart. Two holes, three-quarters of an inch apart, are bored

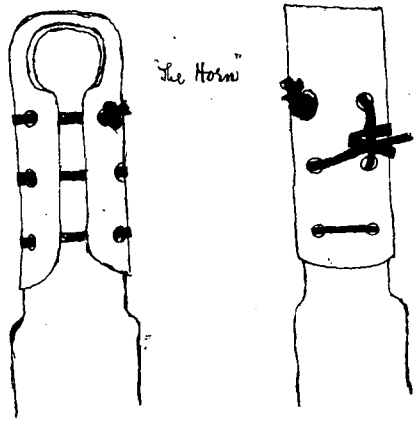
through each side of the horn cap, opposite the grooves in the wood. Lace sutures are passed through these, run round the grooves and through the opposite holes in the horn, and then they are tied tightly round the cap on the outside. The 'horn' can thus revolve round with and on the lace sutures running in the grooves, and yet the cap cannot fly off. It is most ingenious.



SUSSEX FLAIL.

The souple, or 'flail,' is of holly, with the bark on, and is very heavy, a Devonshire characteristic. It terminates in a cap or 'cabal' of double leather, which is firmly fixed to the wedge-shaped top of the souple by two laces, each forming a suture through, and a lapping outside, the leather. One is applied near the top, the other lace near the bottom of the cap. The upper suture is aided by lateral notches an inch below the wedge-shaped top, the lace lapping outside keeping the suture in position. The bottom suture is passed through a hole in the wood parallel to, not at right angles, to the cap, and the

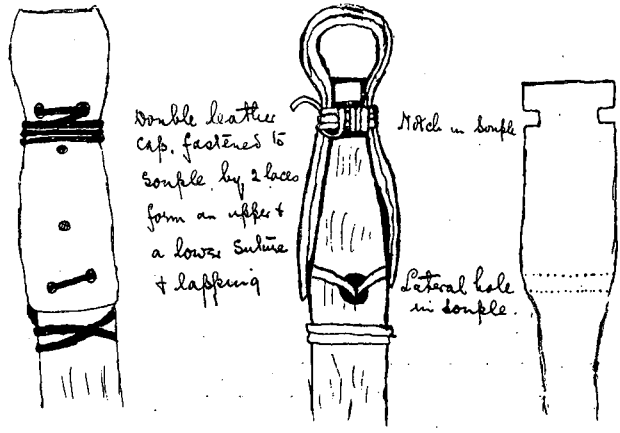
remainder of the lace laps round the wood below the leather cap. Two nails on either side also fix the leather to the souple.



Cap of horn on handstaff with revolving sutures running in grooves.

Thong with copper rivet.

DEVONSHIRE FLAIL.



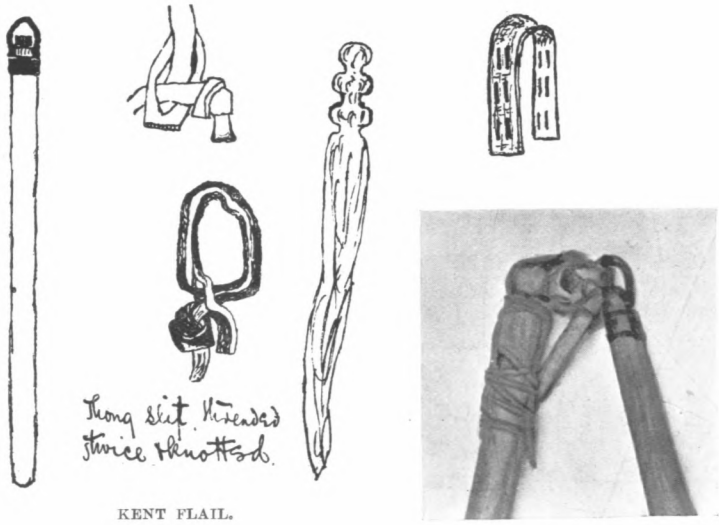
DEVONSHIRE FLAIL.

The leather 'thong' is a double loop of leather, with a copper rivet passing through where the two ends are opposite each other.

KENT FLAIL. In this example, kindly photographed for me by Mr. Frank Winter, the usual wooden cap is replaced by an iron ring, forming a swivel, not unlike those in the Blackgate museum from Northumberland.

The handstaff is of dressed ash, three feet six inches long, by one-and-a-quarter inches in diameter.

The souple, or 'swingle' is two feet nine inches long, by one-and-a-half inches in thickness and has three grooves, to which the 'loop' of hide (slit into three series of three equal portions on either side) is fastened by laces and nails.



KENT FLAIL.

The thong is doubled by passing one end twice through a slit in the opposite end and then tying it in a knot that will not pass the slit encroached upon by the first threading.

IRISH FLAILS. Ireland is the home of the flail or at any rate a centre for flail distribution. Here are shown identical flails from Achill (western Ireland) and Hvalöen (Norway), and that

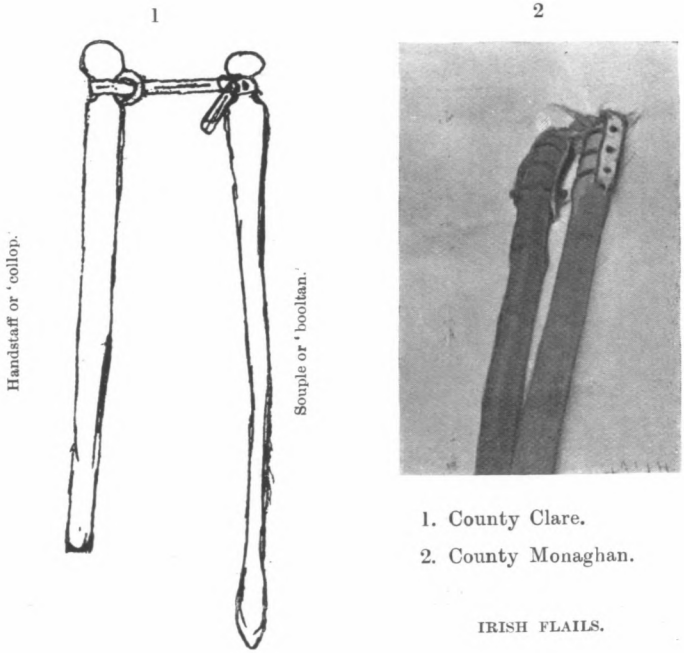
Norway got its flail from Ireland is shown not only by the similarity of form and thong (two grooved sticks and eel skin tie in each), but by the flail in Norway being termed a 'thust' from the Gaelic word 'suist.'

IRISH FLAIL (island of Achill).

NORWEGIAN FLAIL (island of Hvalöen).

IRISH FLAIL (county Clare). It is the simplest flail possible, consisting merely of two sticks and a thong. It is peculiar in having a longer souple than the handstaff. The handle, or 'collop,' was four feet long, and had a deep groove at the top. The souple, or 'booltan,' was five feet long, of young supple ash, with a knob at one end and a groove at the other for the thong. A single thong of horse skin, passed round the groove of the handle, intersected itself and formed a slip-

knot, whilst the other end passed round the groove of the beater, but was firmly tied and fixed with nails so that it could not slip. Thus two sticks and a thong formed the flail, giving the two movements of whirling and striking, dispensing with caps, and having the souple longer than the handstaff. And when an



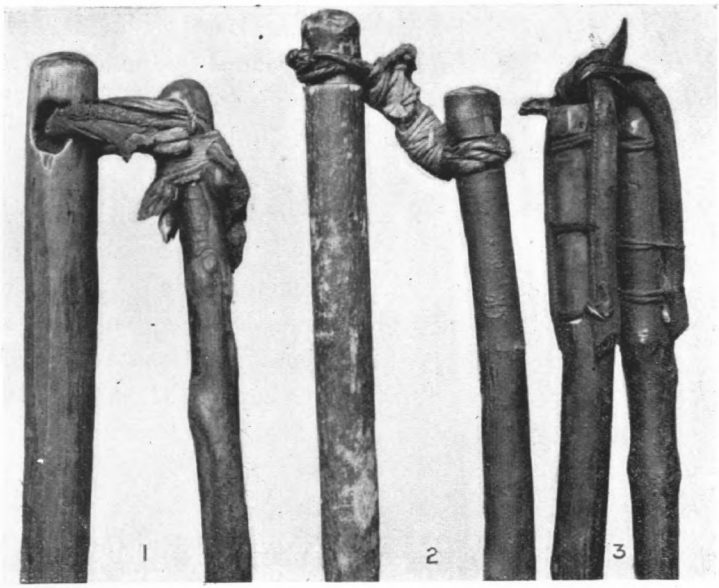
1. County Clare.
2. County Monaghan.

IRISH FLAILS.

Irishman came into an English threshing floor and took up one of our flails by the souple and threshed with the handle, it was not because he was a stupid Irishman, as the wise Englishman unwisely inferred, but because he came from county Clare.

IRISH FLAIL (county Donegal—Gweedore district). This flail is interesting as resembling the flails of Scotland and Northumberland, which are probably derived from it.

The handstaff is three feet three inches long by one-and-a-quarter inches in diameter. It looks heavy but is remarkably light, being of 'saugh,' or wood similar to that which produces the palms of Easter. It is thicker than the souple and has a smooth rectangular eye in its straight end.



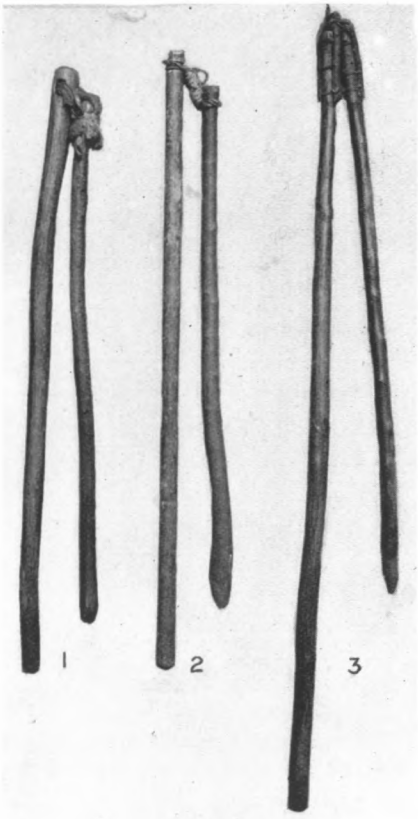
1. Donegal. 2. Achill. 3. Monaghan.

IRISH FLAILS.

The 'souple' is two feet nine inches long by an inch in diameter. It is of blackthorn, is thinner but much heavier than the handstaff. The upper end terminates in a knob, with a notch cut on either side, not a groove.

The thong, or 'hanging,' is a U-shaped piece of white hide (sheep skin), the terminations of the legs of the U being knotted

into knobs. The arch of the U works in the hole in the handle, whilst its legs are attached by lapping to the notches of the souple. The knobs (feet) of the hanging are prevented from slipping by the lapping above them, whilst it also glides on the notches, but is prevented by the head of the souple from flying off. It is a neat, handy flail.



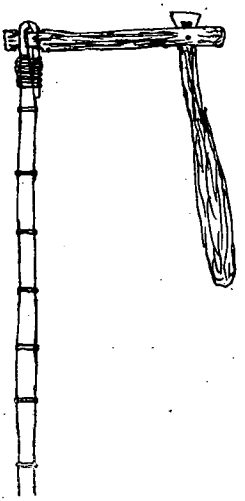
IRISH FLAILS.

1. Donegal form (predecessor of Scotch, Cumberland and Northumberland forms).
2. Isle of Achill (predecessor of Norwegian forms).
3. County Monaghan.

IRISH FLAIL (county Monaghan). The ash hand-staff was as long as six feet sometimes, but was made to suit the height of the barn shanty. It was revolved in the hands. The hazel souple was shorter than the handle. The joint has two caps of hard horse skin, most ingeniously affixed to the wood by shallow grooves and sutures when the skin is soft. Nails are an additional help. The thong, 'tie,' or 'midulee,' is of eel skin, which, when warm, gives off a little oil and slips smoothly on the hard horse skin. Formerly the two caps or 'carbines' were

made of an ash branch, steamed and bent, and fastened by shallow grooves and sutures. They are said to be better than those of hide, which are made from the skin of the horse or the dew-lap of the cow.

The example shown was purchased some months ago in Ireland, where they are still manufactured for sale and retailed from a shilling to half-a-crown each.



JAPANESE FLAIL.

JAPANESE FLAIL. The last variety to be described is a flail from those wonderful little people the Japanese, who, in its use and in that of the winnowing machine, as well as in their war methods with Russia, show that they resemble the western rather than the eastern world. Mr John Robson, junr., has kindly lent me a photograph in his possession of a group of Japanese threshing rice. I am greatly indebted to Mr. Frank Winter for the time and trouble he has taken in making me photographs of several flails. Personally, I am responsible for the sketches but would crave indulgence, not being an artist.

The Japanese flail consists of a bamboo handle, six to seven feet long, probably steamed, bent on itself, and tied round a groove in a wooden arm. At the other end of the arm is a perforation for a wooden souple, which seems to be wedged and nailed. A direct action is alone possible.

I think you will agree that our flexible revolving joint presents considerable mechanical advantages over the implement of Japan, but it is interesting to find the flail so widely spread, from the empire of the Rising Sun to that upon which the sun never sets. And it would be still more interesting to know how the Japanese or ourselves got the flail and who was the

unknown genius who invented it, for its advance upon beating out corn with a stick or treading it out with oxen is evident. The origin of the word flail is the Latin *flagellum* (a switch or whip), though whether the Romans used the flail is doubtful, their chief threshing implement being the *tribulum* or threshing-sledge. In Erse or Gaelic (a language as old as Latin) it is known as 'suist,' and the flail seems to have had an Irish rather than an English origin. The term 'frail' in mid-England is akin to the 'el frail' of Brittany. The flail of Japan may be a separate creation, or may have come from the Chinese, who seem to have had all things long before Rome or Winchester were thought of.

In an earlier part of the paper, I stated that machinery kills the picturesque, but one ought to add that in agricultural architecture the era of machinery is marked by the picturesque addition of the 'horse-house' to the barn, and one cannot but recognise the utility of steam in saving the steaming horses of the 'horse-gan,' or 'mill shed,' which in turn superseded the hard work of the thresher with the flail.

As bearing on the latter point, I cannot perhaps better close this paper than with a quotation from Robert Burns, who was himself a wielder of the flail:—

> The thresher's weary flingin'-tree
> The lee-lang day had tired me;
> And when the sun had clos'd his e'e,
> Far i' the West,
> Ben i' the spence, right pensively
> I gaed to rest.

IRISH FLAIL (island of Achill). This example was kindly sent me by Mr. Parker Brewis, when visiting the west of Ireland. There is no wood on the island, and sticks of sorts have to be procured from the mainland. The implement resembles and is of the same dimensions as that of county Donegal, but has a

groove instead of a perforation in the handstaff, and a groove instead of a notch on the souple. The tie is a three-fold circle of twisted eel skin, constricted in the centre by string lapping, like a dumb-bell with hollow ends, which embrace and revolve round the grooves, and allow the handstaff to be firmly held. (See no. 2, pages 113 and 114.)

Since writing the foregoing the following general conclusions may be of interest:—

IRISH FLAILS. These seem to be the most primitive British forms, and Ireland appears to have been a centre of flail distribution. The Achill form seems to have gone into Norway, where it still bears the name 'tust' (thust), from the old Erse name 'suist.' Dr. A. B. Larsen, a Norwegian dialect authority, says, 'where the flail was called a "tust" he considered it certain that the implement was of Irish origin.' In Sweden (Wester-götland), where the common flail forms resemble those of Norway, the term 'bulten' is applied to the club-like end of the beater, and reminds one of the Erse name 'boulsheen' (Gaelic 'buailtein') applied to the *beater* generally. Another Irish form (with perforated handle) appears to have gone (perhaps with the Irish invasion of the Highlands) into Scotland and become the prevalent form of Scotland, Northumberland and Cumberland. The Orkney flail (page 106) is a distinct form.

The mid-England forms resemble those of Saxony. The southern English forms resemble (though greatly improved) the flails of Norway and Sweden. The Norwegian name for the flail is 'Tarske-stav' (tasker-staff) and in Hereford the flail-man was termed a 'tasker.'

The commonest flails of Italy, Ireland, Norway, Sweden and

Denmark resemble each other. The Tuscan (Italian) name for the flail is 'Chiercia,' the Spanish Basque name being 'Chibichea.' It may eventually prove that the flail came by way of Italy (Tuscany) and northern Spain (Basque provinces) to Ireland.

The word flail is probably from Lat. *flagellum*, but the tool is probably older than that language. The local name, 'frail,' is probably from the 'el frail' of Brittany. The Erse, Gaelic and Basque have names of their own for the implement.

APPENDIX.

[Read on the 30th day of November, 1904.]

We are perhaps not far wrong in assuming the evolution of threshing operations to have been somewhat as follows:—

1. A prehistoric boy rubbing a head of grain in his hands, and blowing away the chaff (threshing and winnowing in one).
2. A man or woman beating out corn with a stick.
3. An animal treading out corn with its feet, or dragging a sledge (moreg or tribulum) over it.
4. A genius who invented the flail.
5. A machine driven by horses.
6. The steam thresher.

In India, Egypt and Algiers they still employ the feet of oxen or mule, but are replacing them with steam machinery. In Japan and Ireland, and among the natives of Rhodesia, flails or staves are still employed. In Germany they are going from flail to steam, while in England and Scotland alone have we had probably every step in threshing except that of the feet of animals.

To-night I mean to try to reconstruct some of the associations of the flail and its times, say sixty years ago. It was used long before that time as seen in prints of the fourteenth century, but who invented it, or whether we imported it from Europe, is unknown. Shakespeare refers to it, as to most other things, in the words—

> Their weapons like to lightning came and went:—
> Our soldiers—like the night owl's lazy flight,
> Or like a lazy thresher with a flail,—
> Fell gently down as if they struck their friends.[1]

Milton speaks of the flail and says—

> In one night, ere glimpse of morn,
> His shadowy flail hath thresh'd the corn
> That ten day-labourers could not end.[2]

Hence it was common in the days of our two greatest poets. While in America, Oliver Wendell Holmes speaks of it thus—

> Now dark in the shadow, she scatters the spray
> As the chaff in the stroke of the flail;
> Now white as the sea-gull, she flies on her way,
> The sun gleaming bright on her sail.[3]

Perhaps the picture of the threshing floor by Mr. Hedley, at present in the Laing Art Gallery, Newcastle, gives as good a representation of the use of the flail as can be shown upon canvas. But a picture is of still life only and cannot give the alternate thwack, thwack of the flails, the slow or faster time that denoted day or piece work, the songs that were sung to the blows, or the associations that lived around the times when the implements were wielded. A few of these I will endeavour to reconstruct.

It is winter on a farm at Ormskirk. The golden grain has been cut three-quarters of an acre a day, by a strong man and his

[1] *King Henry VI.*, Pt. III. Act II. Sc. 1.
[2] *L'Allegro*, I. 108.
[3] *Autocrat of the Breakfast Table.*

mother, not with horse-drawn reaper, but with the semi-circular, short handled 'hook,' smooth edged and strapped to the wrist, and capable of slashing an armful (nearly a sheaf) at a time. Or the wheat has been cut with the 'sickle,' toothed like a saw, and capable of only cutting handfulls at a time, and of clearing only about half the ground compared with the hook; whilst the oats have been mown with the 'bow sythe,' sharpened with the 'hone,' 'stone' or 'strickle.'

The grain has been harvested, and the stacks thatched with the neat roofing of thatch of unbroken wheaten straw. And when winter brings outdoor work to a standstill, the farmer sets his farm servants into the barn to thresh, or he employs professional threshers, whose speciality it is. They are usually two, who work from daybreak to dark, a good man threshing six 'threaves' or seventy-two sheaves, and producing about eight or ten bushels of grain. Most of the grain was extracted by a preliminary 'lashing' or striking the heads of grain on a flat stone or on the edge of a board, and threshing out the rest. The professional thresher would receive 12*s.* or 14*s.* a week and his dinner for this amount of work, whilst the farm lads got 5*s.* a week and their keep. Their food was as follows:—Breakfast at six o'clock in the morning, of sweet milk, oatmeal loaf or 'jannock,' which took twenty-four hours to bake, and as much cheese as one could eat; 'bagging time' at ten o'clock, of jannock, apple or 'tatie' pie, and a pot of coffee; dinner at twelve o'clock, of bacon, 'taties' and fried onions; four o'clock, of apple pie and jug of tea; supper at eight o'clock, of oatmeal porridge, treacle and buttermilk.

The farm servants hired for one year, with a month's notice or wages on either side, from Christmas day to Christmas day, having holiday from Christmas to new year's day, and receiving 5*s.* 'flush money' to bind the bargain, which if broken by non-appearance on new year's day was returned or a penalty was incurred of three month's imprisonment.

The professional threshers, singing 'When Johnny comes marching home again,' worked in twos, striking alternately, but one powerful Yorkshireman, who had two souples attached to his handstaff, worked alone, doing double work.

In the Ormskirk district, the servants were not very fond of Good Friday, but enjoyed a week's 'guying' or holiday from Easter Monday till Saturday. On Good Friday they cleaned horses and got breakfast of bread and milk; did nothing till ten o'clock, when they went to church; had dinner at twelve o'clock of bloaters and potatoes boiled in their jackets, and at one o'clock yoked horses and ploughed tandem, with a boy (postillion-like) on the leading horse, till seven o'clock, to make up for the time 'wasted' in church. At eight o'clock they had a fasting supper of coffee, without milk or sugar, and bread with treacle but no butter. During the following week they went mumming from farm to farm, having a fiddler, the others being dressed to represent various characters. The fiddler would go first into a house, strike up a tune, and was followed by a sailor, who sang—

> The next that comes in is a bold British tar,
> He sailed with Lord Nelson during the war,
> There's a star on his breast, like gold it will shine,
> He's come to remember it's paste egging time.

Then followed a lady, who sang—

> The next that comes in is a lady so gay,
> From her own countrie she's now run away,
> With her hat, cap and feathers, she looks very fine,
> And all her delight is in drinking red wine.

Then came another who sang—

> The next that comes in is old toss pot, you see,
> He's a galliant old man in every degree;
> He's a galliant old man, and he wears a long tail,
> And all his delight is in drinking mulled ale.

And thus the Lancashire lads, who threshed with the flail in winter, spent the week at Easter time.

Threshing, generally speaking, took place in the winter months, in the barn. A permanent wooden floor was sometimes threshed upon, as it gave a better rebound than the stone or concrete floor of the barn generally. Sometimes boards were laid down temporarily. The threshers, generally two, faced each other on either side of, and at right angles to, the sheaves lying between them, heads inward, 'buts' outward, and whirling the flails round their heads, struck alternate blows on the ears of corn, like smiths on iron, the chaff flying from the floor like sparks from the forge. Two to eight sheaves were laid on the threshing floor, in even numbers, heads touching heads. In Cumberland the sheaves were threshed on one side, then untied, and the straw driven on one side with blows of the flail. In Yorkshire the sheaves were first untied and threshed, then one half was turned (with the shaft of the flail and the foot) heads to heads on the top of the other half, again threshed and turned completely over, and the bottom side gone over, till all grain was extracted. The heavy blow and the elastic recoil of the straw forced the grain from the ears of wheat, which, mixed with chaff, seeds, etc., was shovelled from time to time into a heap to await winnowing. Wheat straw, being unbroken, formed excellent material for thatching houses, cottages and stacks. In Devonshire, after threshing, the sheaves were hung up by a rope round the heads, and combed with a five-pronged comb to remove the 'sear' or sheaf. Then they were divided into 'wads' and tied up into 'nitches of reed' for thatching.

In Northumberland, barley following both the flail and threshing machine, was treated by the 'humeler' to get rid of the 'auns.' The 'humeler' was a grate of iron eighteen inches square, with bars one inch apart, and was used like a poss-stick on the barley thinly spread on the barn floor, by means of a three-feet handle, which had a cross piece at the top, and sprang from the centre of two quarter hoops coming from the opposite corners of the grate.

There are doubtless many stories, songs and rimes that linger round, or were sung to the strokes of the flail. The following is a somewhat coarse one from north Northumberland. A housekeeper had given a thresher, day after day, liver for his dinner, and, on listening to his song, was shocked to hear—

Nothing lasts for ever
But heaven and h—— and an old cow's liver.

Reproved, she tried to appease him with the best the house could give, and on listening again was told—

Beef and pudden, too,
Thou's the rogue that cheats the master now.

From the border of Durham comes the following, sent me by Mr. Turnbull of Whickham: A farmer set a manservant to thresh with the flail, after regaling him with bread and cheese. Shortly afterwards the wife, passing, heard the beat of the flail going very slowly to the words—

Bread——and——cheese,
Work——at your——ease.

The next day they gave him potatoes and pie for dinner, with the result that the flail worked quicker to the refrain—

Potatoes—and—pie
Work—according—ly.

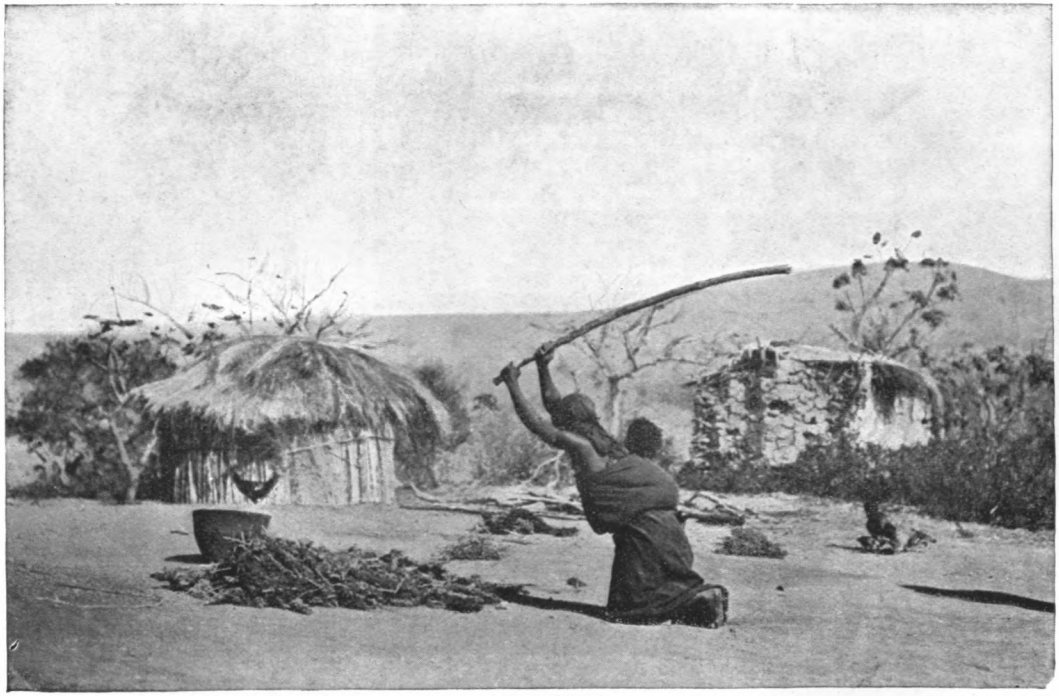
On the third day, dinner consisted of beef and pudding, and the farmer was delighted to hear the flail going full speed to the words—

Beef and pudden
Work like a good un.

It was in these days of the flail that the shepherds on the hills between Yorkshire and Cumberland counted their sheep, not by the decimal system, but by an older system still, half decimal, on the principle of the five fingers, a method probably as old as man himself, and adopted by most native tribes. It ran something like this, and is akin to the Gaelic and Welsh, the latter being given for comparison, thus—

No	Cumberland.	Welsh.	No.	Cumberland.	Welsh.
1	Yan	Un	11	Yan-a-dick	Un-ar-ddeg
2	Tyan	Dau	12	Tyan-a-dick	Dau-ar-ddeg
3	Tethera	Tri	13	Tether-a-dick	Tri-ar-ddeg
4	Methera	Pedwar	14	Mether-a-dick	Pedwar-ar-ddeg
5	Pimp	Pump	15	Bumfit	Pymtheg
6	Sethera	Chwech	16	Yan-a-bumfit	Un-ar-bymtheg
7	Lethera	Saith	17	Tyan-a-bumfit	Dau-ar-bymtheg
8	Hovera	Wyth	18	Tether-a-bumfit	Tair-ar-bymtheg
9	Dovera	Naw	19	Mether-a-bumfit	Pedwar-ar-bymtheg
10	Dick	Deg	20	Giggot	Ugain.

Let us now take a look at the black man's threshing floors in South Africa, as they appear at present, and as they probably were when Tshaka was teaching the Zulus their crescentic formation for battle, and the terrible rush of the stabbing assegai. As you know, the rebelling Zulus under Mozekalatzi, who dwelt in the Transvaal, were driven north into Rhodesia and conquered the Mashonas, driving these in turn into the hills. These Mashonas in the Umtali district make their threshing floors of the dry earth from the heaps thrown up by the white ants. This they lead away near to their fortress hills, mix it with water, and beat it flat and hard. On these they thresh the native grains 'requasa' and 'repoka,' which, when ground in wooden mortars by wooden pestles, form 'oofoo' meal, which is more like wholemeal than the white meal of maize. Their conquerors, the Matebele, dwelling near the Matoppos, store their grain (staple crop 'mabele' and other native grain like white and red millet) in proximity to their threshing floors. The floors are natural smooth blocks of granite. The threshing is done in this wise: the owner of the grain prepares a large brew of beer, and neighbours are invited to attend and bring their flails, a simple stick or staff from five to seven feet long. The guests thresh as long as the beer lasts. In both Britain and Rhodesia the refreshment question seems to have had important bearings on threshing operations. The man with the flail, however, did



A ZULU WOMAN, WITH A BABY ON HER BACK, THRESHING KAFIR CORN.

The Kafir corn while still on the stalk is placed on a portion of ground which has been well smeared with cow dung to make the surface hard and clean. The women (often with a baby strapped on the back) then beat it out with sticks, an operation in which the men sometimes help. When the grain is all beaten off the stalk it is swept up, a good share of dirt being mixed with it.

(This plate, copied, by permission, from Dudley Kidd's *The Essential Kafir*, given by Dr. Allison.)

hard work and needed good support; but among the Zulus and South African races generally the hard work falls to the lot of woman. And it is a common sight to see a woman on her knees, with a baby on her back, vigorously threshing with a stick a heap of Kaffir corn. When the crop has been an abundant one, the natives clear a space, and tread it out with their oxen—a custom that some of the Dutch also employ.

And now we may perhaps take a look at an Irish threshing floor about the time of the famine. The day's work started at three a.m. (cock-crow or one candle before daylight), and went on to ten p.m. (or two candles after daylight). The wages were 2*s*. a day and three meals, which consisted of breakfast, at eight o'clock, of porridge and buttermilk; dinner, at twelve, of red herring and potatoes, with oaten cake and buttermilk (this was varied at times with home fed bacon and home grown cabbage); supper, at ten o'clock, of potatoes (or porridge) and buttermilk. At some farms (say four in a parish), where the farmer was well off, his wife kind-hearted and the men good workers, an extra meal of buttered oaten cake and buttermilk was given at three o'clock as a special favour.

My informant remembers a thresher who worked before the Irish famine for the hours, wages and food named; then, during the famine, he worked for fourpence and food; then they could afford neither food nor pence, so he went to America, and after the famine returned to the same long hours and little wages but splendid food, for my Irish friend thinks, and I agree entirely, that the diet given is far superior to the tea and white bread which is now undermining the physique of the Irish people.

After such long hours the Irish labourers would often heap up the straw in the barn, cover it with a horse rug, and covering themselves with a blanket, would sleep the sweet sleep of hardy toil, and be ready for the early start of the following morning.

And with this peaceful picture of healthy manhood, slumbering after work well done, I bring my paper to a close.