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DIRECTIONS

FOR

TAKING AND CURING HERRINGS:

AND FOR

CURING COD, LING, TUSK, AND HAKE;

BY

SIR THOMAS DICK LAUDER, BART.,

SECRETARY TO THE HONOURABLE THE BOARD OF BRITISH FISHERIES.

TRANSLATED INTO GAELIC, BY

THE REV. ALEXANDER MACGREGOR, A.M.,

ASSISTANT MINISTER AT KILMUIR, SKYE;

AND CIRCULATED BY ORDER OF THE HONOURABLE THE COMMISSIONERS OF THE BOARD.

EDINBURGH:

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PRINTER TO HER MAJESTY..

1846.

AN SEÒL

AIR

AN GLACAR AGUS AN GRÈIDHEAR AN SGADAN;

AGUS AIR

AN GRÈIDHEAR AN TROSG, AN LANGA, AN TRAILLE,
AGUS AM FALMAIR;

LEIS

AN RIDIRE TOMAS DIC LAUDER,

RÙN-CHLEIREACH BUIRD URRAMAICH NA H-IASGAIREACHD BHREATHUINNICH.

AIR EADAR-THEANGACHADH CHUM GAELIC, LE

ALASDAIR MACGRIOGAIR, A.M.,

MINISTEIR-CUIDEACHAIDH ANN AN CILLMHUIRE; AGUS

AIR A CHRAORH-SGAOILEADH AIR IÀRRTAS CUIDEACHD URRAMAICH A' BHUIRD.

DUNEDIN:

AIR A CHLODH-BHUALADH LE T. CONSTABLE,

CLODH-BHUALADAIR DO'N BHAN-RIGHINN.

LETTER from the Rev. NORMAN M'LEOD, D.D.,
Glasgow, to SIR THOMAS DICK LAUDER,
Bart., Secretary to the Board of Fisheries.

SIR,

I have read with great interest the two small publications which you did me the honour of forwarding to me—"The Directions for taking and curing Herrings;" as also "The Directions for curing Cod, Ling, Tusk, and Hake." I think this publication should be circulated most extensively throughout all the Fishing Districts. The *directions* are most simple and intelligible, and well calculated to do much good. In regard to the Gaelic Translation, nothing can be better. The translation is excellent. I read both with interest, and I give my humble but unqualified testimony to the very praiseworthy manner in which they have been prepared. The translation does great honour to the person who executed it; and, wishing the Honourable the Commissioners of the Board of Fisheries much success in the discharge of their most important duties,

I have the honour to be,

SIR,

With great respect,

Your most faithful Servant,

NO^R. M'LEOD.

GLASGOW, 5th May, 1846.

MANSE OF KILMUIR, SKYE, BY PORTREE,
14th May, 1846.

JAS. WILSON, ESQUIRE,

DEAR SIR,

I have received your favour of the 9th instant, enclosing copy letter from the Rev. Norman Macleod, D.D., of St. Columba's Glasgow. I am indeed very much pleased that you submitted my translation of the valuable Treatises of Sir Thomas Dick Lauder to

the judgment of the said Rev. gentleman, as he is undoubtedly the first Celtic scholar of the age. Your having done so must be satisfactory to the Honourable the Board of Fisheries, as perhaps few or none of its Members understand Gaelic ; and I assure you, that it is very satisfactory to me, as it will afford proof to the Honourable the Commissioners of said Board that I have faithfully discharged the duties imposed upon me.

You may feel surprised when I state, that the translation was one of the most difficult tasks I ever attempted. It would have been an easy matter to make a loose, free, and rambling translation, (as is too generally done in such cases) full of provincial phraseology, and such as would be intelligible only in certain districts of the Highlands. It was my first object completely to guard against that, and to give a translation in pure classical language, which must be understood in all quarters where Gaelic is spoken. Another difficulty arose in rendering it pure, and at the same time plain to the capacity of the humblest reader. The number of technical expressions in the excellent Treatises, and the difference in the idioms in the two languages, made it no easy matter to convey the spirit of the original into the translation, in plain, and at the same time, in almost literal terms. I flatter myself, however, that I have successfully attained that very desirable object ; and, as already stated, I am much pleased that the testimony of Dr. Norman Macleod to that effect is before the Honourable Commissioners for their satisfaction.

I would almost feel ashamed to give a statement of the time which I found cause to expend on the translation. As it was a work which I considered might benefit future generations, I deemed it my duty to spare neither time nor trouble in doing it all the justice in my power.

I have the honour to be,

DEAR SIR,

Your very obedient Servant,

ALEX. MACGREGOR,
Assistant Minister, Kilmuir.

DIRECTIONS

FOR

TAKING AND CURING HERRINGS.

Printed and circulated by the Honourable the Commissioners of the Board of British Fisheries.

FRESH HERRINGS, when in prime condition, form a cheap, delicate, and nutritious article of food, and when promptly and efficiently cured, they become valuable as provision. But their value in these respects must necessarily depend entirely on the condition of the fish when caught, and on the degree of promptitude and care which may be exercised in curing them.

Herrings, in regard to their condition, may be divided into three classes, viz. Maties—Full Fish—and Spent or Shotten Fish. Maties are those fish in which the roes and milts are perfectly but not largely developed—and it is well to understand, that this is the state of the fish in which it is truly in the best condition for food—and when it will be found most delicious to eat, as well as most nutritive. Although it does not exhibit, whilst in this condition, so bulky an appearance as it does when it is in that of a Full Fish, it is in reality much fatter, for the bulk of the Full Fish is deceptively produced by the great enlargement of the roe or milt, and this does not take

AN SEÒL AIR AN CÒIR

AN SGADAN

A GHLACADH AGUS A GHRÉIDHEADH.

*Air a chlàdh-bhualadh, agus air a chraobh-sgaoileadh,
le Cuideachd Urramaich Bùird na
h-Iasgaireachd Bhreatuinnich.*

THA Sgadan ùr, an uair a bhitheas e ann an deagh chuladh, 'na bhiadh saor, blasda, agus fallain, agus tha e luachmhor mar theachd-an-tìr, an uair a bhitheas e gu h-ealamh agus gu ceart air a ghréidheadh. Ach tha luach an Sgadain do thaobh se, gu h-iomlan an crochadh ri staid an éisg an uair a ghlacar e, agus ris an calamhachd agus a' chùram a ghnàth-aichear 'n àm a bhi 'g a ghréidheadh.

Féudar an Sgadan, do thaobh a staid, a ròinn 'na trì seòrsaibh ; 'se sin ri ràdh, *An Sgadan glan*.—*An Sgadan salach*,—agus *An Sgadan ruithte*. Is e *An Sgadan glan* an sgadan sin anns am bheil an iuchair agus a' mhealag gu riochdail air an dealbhadh ; gidheadh, ann an tomhas gun a bhi mòr. Tha e ceart a thuigsinn, gur i so an staid anns am fearr am bheil an t-iasg air son lòn, agus anns am freagarraich' e gu mòr do thaobh blas agus beathachaidh. Ged nach 'eil e 'san staid so, co mòr ann an tomad is an uair a bhios e *salach*, gidheadh, tha e da rìrcadh mòran ni's reàmhra, oir tha mèud na h-iucharach agus na mealaig a' cur tomaid mealltach dhc'n iasg *shalach*, an uair a ta 'n t-iasg fein,

place without a corresponding diminution of the body of the fish. The Full Fish, however, are those which are most sought after in a mercantile point of view, because of their larger appearance. The Spent or Shotten Fish having just performed their function of spawning, and having been thereby reduced to a miserable, lean, and poor state, are unpalatable, and more or less unwholesome as food when in a fresh state, and in a still greater degree when cured. The more immediately they are taken after spawning, the worse they will be, and the longer the time that expires after their performance of that function, the less unpalatable or unwholesome they will become. But it is always advisable to avoid taking or using them in any way until they shall have had time to be fully recruited after their thorough exhaustion from spawning.

The different classes of persons directly employed in the trade which produces the article of commerce, called salted or pickled Herrings, are Fishermen, Fish-curers, Gutters, Packers, and Coopers, and if the portion of work which more immediately belongs to each of these classes be in any instance improperly performed, the whole value of the article may be so impaired as to be rendered altogether unmarketable. Each class, therefore, should perform its duties carefully and expertly, so that by the care and attention exercised by all of them towards one object, their united exertions may bring the manufactured fish to the highest degree of perfection of which it is capable. If the Fishermen are so careless in handling the fish as to injure them in any way, the mischief cannot be repaired by Curers—and if Curers fail in their part, the exertions of Gutters and Packers will avail nothing in making amends for their neglect; and although all these may have done their parts well, if Coopers be inattentive to their particular duty, the fish, however well cured, may be de-

a réir sin air a lughdachadh. Tha gidheadh, am barrachd déigh air an *Sgadan shalach*, air sgàth a' mhargaidh do thaobh a bharrachd mèud. Is e *An Sgadan ruithte*, an sgadan sin a ta leis a' chlàidh air a thoirt gu staid thruagh, chaol, agus bhoehd, agus mar sin air a dheanamh neo-bhlasda, agus ann an tomhas mòr no beag mi-fhallain mar bhiadh an uair a ta e ùr, agus ann an tomhas nis' mòr na sin, an uair a shaillear e. Mar is luaithe a ghlacar e an déigh a' chlàidh, is ann is miosa e, agus mar is fhaide an ùine a thèid seachad an déigh dha cladhachadh, is ann is blasda agus is fallaine a bhitheas e. Ach 's e fearr an còmhuidh gu'n an Sgadan a ghlacadh, agus gu'n fhéum a dheanamh dheth, air chor sam bith, gus am bi làn ùine aige gu brotuchadh, agus gu culadh a ghabhail, an déigh mar a chlaoidheadh e leis a' chlàidh.

Is iad na *h-Iàsgairean*, — *An Luchd-gréidhidh*, — *An Luchd-cutaidh*, — *An Luchd-saillidh*, — agus *Na Cùbaircan*, a' mhuinntir sin fa leth aig am bheil e mar cheaird, am bathar-malairt sin a dheanamh suas, ris an abrar *Sgadan sailte* no *Sgadan piceilte*. Mar dean gach buidheann dhiubh so gu ceart, an carrann sin do'n obair a bhuineas gu h-àraidh dhoibh fein, an sin, féudaidh uile luach an éisg a bhì air a lughdachadh co mòr, is nach gabh e a chaidh reiceadh. Bu chòir do gach buidheann, uime sin, an dleas' nas fein a dheanamh gu cùramach agus gu sèolta, a chum, air do shùil nan uile a bhì air an aon chuspair, gu'm féud iad, le'n dìchioll fein maraon, ruigheachd air an ro ìomlanachd gréidhidh sin a ta idir comusach. Ma bhitheas na *h-Iàsgairean* co-michuramach ann an làimhseachadh an éisg, is gu'm mill iad e air shèol sam bith, cha'n urrainn an Luchd-gréidhidh an cron ath-leasachadh; agus ma thig an Luchd-gréidhidh gearr air an dleas' nas fein, cha bhì dìchioll an Luchd-cutaidh agus an Luchd-saillidh chum féum sam bith, air son am mi-chùram-san. Agus ged a dheanadh iad so uile an gnothuch fein gu maitli, ma bhitheas na Cùbaircan mi-fhaiceallach mu'n dleas' nas shònraichte fein, tha'n t-iasg air fhacbas's gu'n gréidhear e, an cunnart a bhì air amhilleadh.

stroyed. Hence it is necessary to have the most vigilant superintendence over all these departments, which, if properly exercised, will not much increase the expense of production, whilst it will insure well cured Herrings, and a ready market, and likewise raise the character of our British fisheries still higher in foreign countries.

FISHERMEN.

It is advisable, in the first place, to consider those things that require to be attended to in the capture of the fish. The Dutch mode of taking them, by employing vessels of from 60 to 90 tons, has many advantages over that of our British fishermen, who use boats only, and especially that of enabling the crews to cure their Herrings immediately on board, and almost before they are well dead. This may be considered as one great cause of the superior flavour of Dutch cured fish, as the fish must suffer to a certain extent every moment they remain without having salt applied to them. In one point, however, our boats have an advantage over the Dutch vessels, that much finer netting can be used in them, the weight of the Dutch vessels requiring stronger nets, made of heavier twine, which is not likely to be so successful in taking fish as nets made of twine of a finer description. Any general introduction of the use of such vessels as are used by the Dutch, however, cannot perhaps be looked for; but it may be pointed out as a thing most desirable, that the boats employed by our fishermen should be as large as possible, to be convenient for rowing in calms. Were well-built, well-rigged, and well-found boats of from 15 to 18 tons more common amongst our Fishermen than they are, and were these always maned by at least six men and a boy, we should

Air an aobhar sin, fèumar a bhi 'g amharc gu géur thairis air an luchd-ceaird so fa leth; nì, nach 'eil chum mòr-chosdais ma nithear gu ceart e; ach nì, aig am bheil a' bhuanachd so, gu'n dean e cìnnteach gu'm bi an Sgadan air a dheagh-ghrèidheadh, agus gu'm faigh e féill ealamh; agus gu'n àrduich e cliù na h-Iasgaireachd Bhreatainnich fathast nì's àirde ann an dùchannaibh an céin.

IASGAIREAN.

Tha e àraidh an toiseach beachdachadh air na nithibh a dh'fhéumar a thoirt fa'near ann an glacadh an éisg. Tha iomadh buannachd aig an t-sèol air am bheil na Dùidsich 'ga ghlacadh, a bhàrr air an t-sèol a ta 'ga ghnàthachadh leis na h-Iasgairibh Breatainneach, aig nach 'eil ach a mhàin bàtaichean chum sin a dheanamh. Tha na Dùidsich a' gnàthachadh shoithichean a ghiulaincas o thri fichead gu ceithir fichead tunna 'sa deich, agus orra sin tha cothram aig gach sgiobadh an sgadan aca a shailleadh air bàll air bòrd, mu'm hi e ach air éigin màrbh. Féudar a smuaineachadh gur e so is aobhar do'n fheabhas blas a gheibhear air an sgadan Dhùidseach, do bhrìgh gur mòr is misg e gach mionaid a dh'fhàgar e gu'n sailleadh an déigh a ghlacadh. Air aon dòigh gidheadh, tha na h-eithrichean againn fein a' toirt barrachd air na soithichibh Dùidseach, do bhrìgh gu'm féud sinne lìonta nì's grinne a ghnàthachadh annta. Do thaobh mèud nan soithichean Dùidseach féumaidh iad lìonta nì's treasa, agus air an deanamh do shnàth no do àbhras nì's gàirbhe, nithe nach 'eil co sealbhach chum an t-iasg a ghlacadh ri lìontaibh air an deanamh do àbhras nì's caoile.

Cha'n 'eil dùil gu'm bi leithid nan soithichean Dùidseach gu coitchionn air an cleachdadh 'nar measg-ne, ach féudar a ràdh gu'm bheil e 'na nì ri mhìannachadh, gu'm biodh na h-eithrichean a ghnàthaichear le'r n-iasgairibh fein co mòr ann am mèud 'sa dh'fhéudas a bhith, chum a bhi freagarrach air son ìomraimh ri fèith. N'am biodh bàtaichean air an deagh thogail, agus air an deagh uidheamachadh, eadar cuig tunna déug agus ochd tunna déug, nì's cumanta na tha iad am measg ar n-iasgairian, agus n'am biodh an còmhnuidh mar is lugha, seiscar dhaoine agus gille mar sgiobadh orra sin,

hear of fewer lives being lost—and much more might be achieved by hardihood in contending with heavy seas and gales of wind, and thus much more fish might be captured. But this is not all—for although the fish when caught could not perhaps be cured directly on board of such boats, as they are with so much advantage in the Dutch vessels, they could at least be much better preserved until landed, than they possibly can be in smaller boats. The boat ought to be put into perfect order, and properly tarred, and the tar well-hardened before the fishing season commences, for if the tar happens to have been too recently applied, those fish which accidentally touch the skin of the boat, will be contaminated with a taste of tar, and as early caught fish are often slightly salted and hurried to market, to obtain high prices as an immediate delicacy, if the flavour, or even the smell of tar is perceptible in the pickle or fish of a single barrel, the character of the whole parcel may be injured. It is most essential that all boats should be furnished with pumps, the occasional working of which, if necessary, will keep the boat dry, for nothing is found to be more prejudicial to the fish than their being permitted to wash backwards and forwards in a bath of sea water, filling the bottom of the boat, by which they have their scales rubbed off by friction against each other, and they are macerated in such a manner as to lose the greater and richer part of their natural juices, and to become flabby, unsightly, and tasteless ; and if, in addition to the pump, the boat were floored with deal boards, perforated with holes large enough to allow any water that might be shipped to find its way downwards, it would not only add greatly to the comfort of the crew, but it would tend to keep the fish in much better state till they should be landed. Bottom, or limber boards, foot spars, and walking planks, may be consider-

cha bhìodh a luthadh beatha air a càll,—agus dh' fhéudadh barrachd a bhì air a dheanamh le crùadal agus le strìth an aghaidh fhàirgean troma, agus gaoith' auradhaich,—agus mar so, dh' fhéudadh mòran tuilleadh éisg a bhì air a ghlacadh. Ach cha'n e so a mhàin, oir ged nach gabhadh an t-iasg a ghlacteadh gréidheadh, féudaidh e bhì air bàll, ann an leithid so a dh' eirichibh, mar a nithear le uiread do chothrom, air na soithichibh Dùidseach; gidheadh, ghabhadh e gleidheadh ni h' fhearr annta sin, na bhìodh comusach a dheanamh ann an eithrichibh ni bu lugha. Bu chòir an t-eithear a bhì air a deagh uidheamachadh, agus gu h-ìomchuidh air a tearradh, agus an tearr a bhì gu maith air a tiormachadh mu'n tig àm an iasgaich. Mar do chuireadh an tearr a'm féum ach o cheann ghoirid, truaillear le blas na tearra an t-iasg a dh' fhéudas suathadh rithe anns an eithear. Tha'n t-iasg a ghlacar gu tràth, mar a's trice gu h-éutrom air a shailleadh, agus air a ghreasadh chum a' mhargaidh chum lùach mòr fhaotuinn air a shon, mar bheathachadh taitneach ùr;—uime sin, ma gheibhear blas, no eadhon fàile na tearra do'n phiceal, no d'on iasg aig aon bharraille, millear àinm na euid eile air fad. Tha e 'na nì ro fhéumail gu'm biodh na h-eithrichean gu léir air an uidheamachadh le piobaibh-taosgaidh leis am féudar gach eithear éu-dìonach a chumail tioram. Cha'n 'eil nì san bith nì's milltiche do'n iasg na bhì air uideal air ais agus air adhairt anns an tùim, oir le so, tha na lannan air an suathadh dheth, agus tha e air a bhruthadh air sheòl is gu'm bheil e a' càll na cuid a's mò agus a's tàrbhaiche do'n bhrìgh nàdurra aige, agus tha e' fàs bog, sleamhuinn, mi-dhreachail, agus neo-bhlasda. A thuilleadh air 'a phìob-thaosgaidh n'an rachadh ùrlar fiodha a chur anns gach eithear, le tùill eo mòr 'sa bheireadh comas do'n uisge a thigeadh a stigh siòladh sios trompa, cha'n e mhàin gu'n co-chuireadh e mòran ri seasgaireachd an sgioba, ach chumadh e an t-iasg ann an staid nì's fearr, gus an cuirteadh air tìr e. Tha bùird-rongach, sparran-coise, agus clàran-siubhail, 'nan nithibh ro fhéumail ann an eithrichibh

ed as essentials for the preservation of the fish. Whenever the fish are landed, the limber boards should be removed, and the whole interior of the boat should be properly washed and scrubbed. This should be done daily during the fishing season, and thus the glut is much more easily removed, and the boat is rendered clean, and freed from all taint or smell, before proceeding to sea on each successive voyage. Each boat should be provided with a comfortable place forward, for the crew retiring occasionally to sleep or to shelter in, covered with a half deck, and every man should have a comfortable oil-skin canvass coat and trowsers and boots; and if each were to be provided with the patent Edinburgh Safety Cape, invented by Mr. Simpson, or such safety packets as are now furnished to the Coast Guard, many lives would be saved which would otherwise be lost. As every large boat may have a fire on board, coffee in any quantity could be heated for the crew, and this would be found on trial to be a much more comfortable and nourishing drink for them, and much more enduring in its effects than any spirituous liquor, and free from all after bad consequences.

Where large fleets of fishing boats are assembled, it is a common practice for the whole fleet to follow the course pursued by the first boat that puts to sea, and to run for the same fishing-ground. This may be a wise mode of procedure where the certainty of finding a body of fish in that particular quarter may have been already ascertained, but when this happens not to have been the case, it would be much more advisable for the boats to go in separate courses, so as to increase the chance of some of them falling in with the body of fish; and when that has been discovered, the other boats of the fleet might afterwards join them, and thus all might fish successfully; whereas by the present practice, if the fish are not encoun-

chum an t-iasg a ghleidheadh tearuinte. An uair a chuirear an t-iasg air tìr, bu chòir gach bòrd fuasgailte 'san eithear a thoirt aisde, agus an taobh a stigh aice a nigheadh agus a ghlanadh gu cùramach. Bu chòir so a dheanamh gach là rè àm' an iasgaich, agus mar so, tha'n salachar ni's usa a thoirt air falbh, agus tha'n t-eithear air a deanamh glan, agus saor o gach sal agus droch fhàile, mu'n téid i dh' ionnsuidh na mara air gach turas fa leth. Bu chòir àite goireasach a bhi air a dheanamh ann an toiseach gach eithir, agus air a dhùnadh os a cheann, far am féud an sgioba air amannaibh codal a dheanamh, agus fasnadh 'fhaotuinn. Bu chòir còta agus triubhas cainbe, air an deagh ùilleadh, agus mar an céudna bòtan freagarrach a bhi aig gach fear;—agus nam faightheadh gach iasgair fa leth an comhdach-cènn sin, ris an abrar *Currachd-tearnadh Dhunéidin*, air son an d'fhuair Mr. Simpson, a dhealbh e an toiseach, litir-còrach o'n chrùn;—agus maille ri so, 'nam faightheadh gach iasgair an t-uidheam-tearnaidh sin, a ta nis air a dheasachadh air son Freiccadain a' Chòrsa, rachadh iomadh beatha a thearnadh, a bhiodh a's éu'gais sin, air an càll. On a dh' fhéudas teine a bhi anns gach eithear anns am bheil mèudachd, bhiodh e comusach do'n sgioba am féumalachd fein do *Choffidh* a dheasachadh, agus chitheadh iad le déuchainn a thoirt da, gu'm biodh sin mar dheoch, ni bu taitniche, ni b' fhallaine, agus ni bu tàrbhaiche gu mòr na deoch laidir sam bith, agus gu'm biodh e saor o gach droch bhuaidh 'na lòrg.

Far am bheil càbhlaichean mòra a dh' eithrichibh-iasgaich air an cruinneachadh, tha e 'na chleachdadh cumanta gu'n lean a' chàhlalach air fad air an t-slighe a ghabhas a' chéud eithear a théid dh'ionnsuidh a' chuain, agus gu'n toir iad a mach an t-aon ionad iasgaich. Féudaidh so a bhi 'na shìeol glic, ma fhuair eadh cìnnteachd roimh làimh gu'n robh meall éisg anns a' cheart ionad sin, ach mar do thachair sin, bhiodh e mòran ni bu fhreagarraiche do na h-eithrichibh slighean fa leth a ghabhail, chum le sin, gu'm féud cuid dhiubh tuiteam air meall do'n iasg, agus an uair a thachaireas sin, dh'fhéudadh eithrichean eile na càbhlaich dol maille riu, agus mar so dh'fhéudadh sealbh éisg a bhi orra uile. Ach a réir a' chleachdaidh chumanta, mar faighear an t-iasg

tered by the first boat, the whole fleet are likely to be equally disappointed. Under any circumstances, the boats should not crowd too much together, but leave sufficient intervals of room between each other, so that the trains of net may be shot without any risk of one train interfering with or getting entangled with another. A good and efficient net ought to be 50 yards long on the back rope, by 14 yards deep; and a good and proper train should contain 26 of these nets, hanging in succession from the back rope, thus containing altogether 18,200 square yards, stretching over a line of sea of 1300 yards in length. The swing or net rope should be about 120 yards long, so that the whole length of nets and line may stretch along 1420 yards of sea, or about four-fifths of a mile. These nets should be properly tanned; and if done with the drug called *catechu*, or *terra japonica*, it will be found much better than oak-bark; but care must be taken when using it, not to overdo the process, otherwise the meshes may become contracted and too much hardened. Sir William Burnet's patent likewise has been found extremely good for the preservation of nets. And farther, whilst on the subject of nets, it may be well that fishermen should know that Messrs. Jamieson of Kilbirnie, and Mr. Paterson at Musselburgh, have manufactured a particular description of small twine for nets, which, whilst it is equally strong with the common net, is much less easily seen by the fish in the water, and has consequently been found by experiments made by orders of the Board, to be much more successful than the ordinary nets.

The train of nets having been carefully and regularly coiled up in the boat, should, on arrival at the fishing ground, be gradually shot out with equal care and attention, and then the boat lies with the train attached to it. After the train shall have remained in the water for such a length of time as may appear necessary for al-

leis a' chéud eithear, bithidh a' chàbhlach air fad, a léir coslais co-ionann air am mealladh 'nan dòchas. Cha bu chòir do na h-eithrichibh air dhòigh sam bith a bhì air an dòmhachadh tuilleadh 's mòr, ach a bhì aig astar freagarrach o chéile chum cothrom a thoirt dhoibh fa leth, an lìontan a chur, gu'n a bhì air an ribeadh, agus air am prabadh feadh a' chéile. Bu chòir do lìon math, diòngalta, a bhì deich agus dà fhichead slat ann am fad air an drùim, agus ceithir slata déug ann an doimhneachd. Bu chòir do shea thar fhichead do na lìontaibh sin, a bhì anns gach sreath iomchuidh agus ceart, agus a bhì an crochadh o'n drùim an déigh a' chéile; agus mar sin, a' deanamh suas gu léir ochd mìle déug agus dà chéud (18,200) slat ceithir-chearnach, agus a' ruigheachd astair thri chéud déug slat (1300) a mach air a' chuan. Bu chòir do'n tobha-cinn a bhì mu shea fichead slat ann am fad, air chor is gu'm bi esan agus na lìonta air ceann a' chéile, a' ruigheachd air ceithir chéud déug agus fichead slat mara; 'se sin, mu'n choigeamh carrann ni's lugha na mìle astair. Bu chòir do na lìontaibh sin a bhì gu ceart air an cairteadh. Ma nithear sin leis a' chungaidh ris an abrar *Catechu*, no *Terra Japonica*, gheibhear e mòran ni's fearr na cairt an daraich; ach féumar an aire a thoirt 'n àm a bhì 'gan cairteadh le so, nach fhaigh iad barrachd 'sa chòir dheth; oir le sin, féudaidh na mogulan a bhì air an crupadh, agus air an crùadhachadh tuilleadh's mòr. Tha'n innleachd aig an Ridir Uilleam Burnet air a faotuin ro fhreagarrach mar an céidna chum na lìontan a thearnadh. Agus ni's fhaide, an àm a bhì'labhairt air na lìontaibh, tha e féumail gu'm biodh fios aig na h-iasgairibh gu'n do dhealbh Maighstirean Iamieson aig Cillbirnie, agus Maighstir Paterson aig Musselburgh seòrsa àbhrais, no snàth air a thoinneamh gu caol air son lìontan, a ta co-ionann làidir ris an t-seòrsa chumanta, gu'n a bhì idir co furasd faicinn leis an iasg anns an uisge. Le déuchainnibh a thugadh le òrdugh a' Bhùird, fhuair eadh a mach gu'm bheil an seòrsa ùr so, mòran ni's sealbhaiche no na lìonta cumanta.

Air do na lìontaibh a bhì gu cùramach agus gu riaghailteach air am filleadh suas anns an eithear, bu chòir an cùram agus an riaghailt chéidna a bhì air an gnàthachadh aig àit an iasgaich, le bhì 'gan tilgeadh a' chuid agus a' chuid a mach; agus an sin, luidhidh an t-eithear le gréim aice orra. Air do na lìontaibh a bhì co fad anns an uisge,

lowing the Herrings to mesh, during which time the nets must have been occasionally pulled up a little and examined, so that when no likelihood of Herrings may appear, the nets may be hauled, the ground shifted, and the nets shot elsewhere, and when it is found that the Herrings have meshed, the train must be carefully and not too rapidly hauled up. And now comes a part of the fishing process which demands the most serious attention from the fishermen, as the future value of the fish may be immensely deteriorated if this part of these instructions be neglected. The whole of the fish should be carefully shaken out from each successive part of the net as it is taken into the boat. If this is not done, the Herrings are liable to be much jerked about with every pull that the net receives whilst in the boat, and so they are stript of their scales, are bruised, torn, and broken, and become soft, and more or less tainted, and consequently they are thus, even before cure, rendered to a great extent unmarketable; whilst Herrings immediately shaken from the net in the manner here enjoined, being alive at the time, fall easily from the meshes into the bottom of the boat, where they remain in a beautiful state, with every scale adhering to them, and continue firm and uninjured until the boat reaches the beach, where they are immediately and promptly delivered. To secure attention to this most important matter, fish curers, in contracting with fishermen, should make an arrangement that all Herrings brought to the shore in the nets should be paid for at a reduced price; and no indulgence should be allowed as to this rule, unless in cases where stormy weather may have rendered it impossible for the fishermen to shake the Herrings out of the nets whilst hauling. It becomes the more essential to impress all this the more strongly both on fishermen and curers, that the plan of shaking out the Herrings from the nets as they are hauled is but

's gu'm féud dùil a bhi ri ìasg fhaotuinn anns na mogulaibh, is còir a bhi 'gam féuchainn a nis agus a ris, le bhi 'gan tarruing beagan a stigh, air chor, is mar faicear coslas sgadain annta, gu'm féudar an toirt gu buileach a stigh, agus déuchainn a thoirt do àit eile. Ach an uair a chithear gu'm bheil sgadan anns na mogulaibh, féumar na lìonta a tharruing a stigh le cùram agus gu'n chabhaig sam bith.

Ach a nis, tha' chuid a's cudthromaiche gu mòr do'n gnothuch air teachd, d'am féum na h-iasgaircan cùram ro àraidhaghabhail; oir mar dean iad sin, féndaidh luach an éisg, an déigh sin, a bhi gu ro mhòr air a mhilleadh. Bu chòir do'n ìasg a bhi gu léir air a chrathadh le cùram as gach carrainn fa leth do'n lìon, 'n àm a bhi 'ga thoirt a stigh do'n eithear. Mur deanar so, tha'n sgadan buailteach do bhi air a ghrad-lùasgadh a nùll is a nàll, leis gach spìonadh a bheir-e ar na lìontaibh anns an eithear; agus mar so, tha na lauman air an suathadh dheth, agus tha e air a bhruthadh, air a réubadh, agus air a bhriseadh. Tha e an sin, a' fàs bog, sleamhuinn, agus ann an cuid, maletc, air chor is gu'm bheil e, eadhon mu'n gréidhear e, air a mhilleadh ann an tomhas mòr, air son a' mhàrgaidh. Ach, an uair a chrathar an sgadan air bàll as an lìon, air an t-sèol a dh' ainmicheadh, air dà a bhi bèo aig an àm, tuitidh e gu soirbh as na mogulaibh, chum ùrlar a' bhàta, far am bi e ann an staid bhriagh, agus thearuinte,—agus far am fan e gu'n dochunn, gu'n dolaidh, agus gu'n lànn a chàll, gus an ruigear tìr, agus an sin, cuirear air bàll gu cùramach a mach e. Chum cùram a ghabhail do'n gnothuch chudthromach so, bu chòir do'n luchd-gréidhidh, ann an còrdadh ris na h-iasgairibh, riaghailt a dheanamh, gu'n rachadh prìs an sgadain sin uile, a bheireadh iad gu tìr anns na lìontaibh a lughdachadh, agus cha bu chòir doibh bàigh sam bith a dheanamh a thaobh na riaghailte so, ach a mhàin an uair nach comas do na h-iasgairibh, le h-anradh euain, an sgadan a chrathadh as na lìontaibh. Tha e ro iomchuidh gu'n gabhadh araon na h-iasgaircan, agus an luchd-gréidhidh, mòr chùram do na nithibh so, do bhrìgh gu'm bheil iad tuilleadh's tric a' dearmad an sgadan a chrathadh as na lìontaibh, an uair a bheirear a stigh iad,

too seldom followed, and this in defiance of all the means which the Board of Fisheries has taken to get the proper practice pursued, its Commissioners having, so far back as the 22d June 1816, issued, through its Secretary, an order to its officers to do all in their power to promote the adoption of this most important practice ; but notwithstanding all the exertions of the officers, it is still very universally neglected. It is earnestly hoped, however, that the fish curers, to whom a mode of correcting the evil has been pointed out as existing in their own hands, will now seriously bestir themselves to put an end to the practice of allowing the Herrings to be brought ashore in the nets, which so much destroys them even before a single step is taken in the process of cure. Another precaution would be highly valuable if it could be adopted. If a piece of an old sail were fitted so as to cover the space from the mainmast of the boat to the pump, the moment after the Herrings were shaken into it from the nets, and made fast over each gunnel, so as not to interfere with the management of the boat either in sailing or rowing, the fish would be kept from all risk of suffering from the sun, and if a boat-hook or boom were placed fore and aft under it, they would be protected both from rain and sea water until ready for delivery. These precautions would not only preserve the fish in prime condition till the curing process should commence, but the boat's crew would find their account in attending to them, from the great saving of time and labour which would thus be secured to them on their landing. Thus a crew which might reach the shore at six o'clock A.M., with a large take of Herrings, having their nets all shaken, and the fish ready for immediate removal, might land, spread their nets, or hang them on the drying poles, and, in ordinary circumstances, they might have their fish delivered by ten o'clock, get themselves washed, and take their

dh'aindeoin gach strìth a rinneadh le Bòrd na h-Iasgaireachd chum an seòl freagarrach a ghnàthachadh. Thug am Bòrd àithne seachad co fad air ais ris an dara là fichead do mhiòs meadhoin an t-sàmhraidh 1816, agus sparradh an sin air na h-oifigieh iad a dheanamh gach ni 'nan comas, chum géill a thoirt do'n chleachdadh chudthromach so; ach a dh'aindeoin uile dhèchill 'nan oifigeach, tha'n gnothucl fathast gu ro mhòr air a dhearmad. Air do'n chùis a bhli air a deanamh soilleir do'n luchd-gréidhidh, gu'm bheil an seòl air an ath-leasuichear am mearaclid so 'nan làmbaibh fein, féudar a bhli an dòchas, gu'n cuir iad ear dhiubh fein gu h-ealamh a nis, chum an cleachdadh sin a chur air cùl, trid an robh an sgadan 'ga thoirt air tìr anns na lìontaibh, agus trid an robh e air a mhilleadh, mu'n do thòisich eadh idir air a shailleadh. Tha nì eile ann a bhiodh ro fhéumail, mar an céudna, n'am biodh innleachd air a ghnàthachadh, agus is e sin, air bàll an déigh do'n sgadan a bhli air a chrathadh as na lìontaibh, n'am biodh an t-astar a ta eadar an crànn-mòr agus a' phioibthaosgaidh, air a chòmhdachadh le mìr do sheann seòl air a ghearradh ann am mèud freagarrach air son an àite, agus air a cheangal gu daingean air béul a' bhàta air gach taobh, chum nach biodh e ann an rathad nan ràmh no nan seòl, chumadh e an t-àisg gu'n chunnart millidh le teas na gréin; agus nan rachadh crànn-sgòid, no slat sam bith eile a chur fodha, bhiodh an t-iasg le sin air a dbìonadh o'n uisge agus o'n t-sàl, gus am biodh e deas gu thoirt seachad. Cha'n e mhàin gu'm biodh an t-iasg air a ghleidheadh ann an deagh òrdugh le bhli faicilleach a thaobh nan nithe so, gus an tòisich eadh an sailleadh, ach bhiodh e chum buannachd do'n sgioba fein, do bhrìgh gu'n caomhnadh e mòran ùine agus saothreach dhoibh, an uair a bheireadh iad an tìr a mach. Mar so, dh'fhéudadh an sgioba an tràigh a ruigheachd aig sea uairean 'sa mhaduinn le tachdar mòr éisg, agus air do na lìontaibh a bhli roimh làimh' air an crathadh, agus do'n iasg a bhli deas gu chur a mach, dh'fhéudadh iad fein dol air tìr, agus an lìontan a sgaoileadh a mach, no an crochadh air na crannaibh-tiormachaidh. Air an dòigh so, bhiodh an t-iasg air a thoirt seachad leò, an cumantas, roimh dheich uairean do'n là; bhiodh iad an déigh iad fein a ghlanadh,

victuals, and then go to bed and sleep comfortably for four or five hours, after which they would have ample time to mend their nets, and to carry them down to the boat, so as to be ready to proceed to the fishery, full of that strength, vigour, and energy necessary to prosecute it successfully, whilst other fishermen, on the contrary, who have had similar success, but who may have hauled their nets without shaking the fish out of them, have all this to do after reaching the harbour, and that with much greater difficulty, for it is often found to be so impossible to draw the nets from under the fish, that those on the top require to be shovelled to another part of the boat, or landed, before all the nets can be got out, the effects of all which on fish caught during the hotter months may be easily imagined. But as regards the fishermen themselves, from all these difficulties, the day is far spent before the fish are delivered, and the nets all spread out or hung up, so that before they have reached home, washed, and had food, there is no time left for sleep or for mending their nets, and the preparation for the ensuing night's fishery is begun without befitting energy. Such crews, too, often arrive so late at the fishing ground from these causes, that they cannot easily find a clear berth to shoot their nets in; and when they do obtain it, no sooner are the nets fairly out of the boat, than the men are asleep, or at all events they are so fatigued, from want of rest, that they have not courage to haul their nets, so as to change their ground if necessary, and to take a second shot, and therefore, they thus too often return disappointed.

When the Herrings are landed from the boat, they ought to be measured by the legal Cran measure, and not counted, unless the quantity taken be so small as not to fill a Cran measure. As it is for the interest of both fishermen and fish-curers that the Cran measure should be used, as it affords the truest and justest mode of deal-

agus am bìadh a ghabhail; agus dh'fhéudadh iad, an sin, an leabadh a thoirt orra, agus ceithir no cuig nairean codail a dheanamh. An uair a dh'éireadh iad, bhiodh pailteas ùine aca, chum an lìontan a chàradh, agus a ghìulan dh'ionnsuidh a' bhàta, chum a bhi deas air son an iasgaich. Mar so bhiodh iad neartmhor, beothail, agus sunntach chum an guothuch fein a dheanamh gu ceart. Ach air an làimh eile, tha 'chùis calg-dhìreach an aghaidh sin, a thaobh nan iasgairan nach do chrath an t-iasg as na lìontaibh 'n àm a bhi 'gan tar-ruing a stigh. Tha so uile aca ri dheanamh an uair a ruigeas iad tìr, agus tha e mòran nì's dorra an sin; oir, air uairibh tha e co éu-comusach na lìn a tharruing a mach an uair a bhios cudthrom an éisg os an ceann, is gu'm féum an sgadan a bhios an uachdar a bhi air a thilgeadh le sluasaid chum àit' eile do'n bhàt, no a bhi air a chur gu tìr, mu'm faighear na lìontan a thoirt a mach. Is soirbh a thuigsinn cìod am milleadh a ni so uile air an iasg, gu h'àraidh ri teas an t-sàmhraidh. Ach do thaobh nan nithe so uile, cha'n iad na h-iasgairan fein a's fearr a bhios dheth. Tha' chuid a's mò do'n là air dol thairis mu'n toirear an t-iasg seachad, agus mu'n sgaoilear na lìontan uile a mach, no mu'n crochar suas iad chum tiormachaidh, air chor is mu'm faigh na h-iasgairan dbachaidh, agus iad fein a ghlanadh agus am bìadh a ghabhail, nach d'fhàgadh ùine dhoibh chum dol gu codal, chum na lìontan aca a chàradh, agus chum iad fein a dheasachadh air gach scòl freagarrach, air son iasgaich na h-oidheche sin. Air son nan àobhar so, bithidh e, mar a's tric, co annoch mu'n ruig a leithid so do sgioba ionad an iasgaich, is nach bi e furasd doibh àite rèidh fhaotuinn, anns an tilg iad na lìonta aca; agus an uair a gheibh iad sin, cha luaithe a chuirear na lìn a mach, na thig codal air na daoineibh; agus mar tachair sin, bithidh iad co sàruichte a's éng'ais foise, is nach bi tapachd aca chum na lìontan a tharruing, gu deúchainn a thoirt do àit eile nì's fregarraiche, agus mar so, pillidh iad am bichiontas gu tìr, air am mealladh 'nan dòchas.

An uair a chuirear an sgadan gu tìr as a' bhàta, bu chòir a thomhas le tomhas laghail a Chràinn, agus gu'n a bhi idir air àireamh, nì's lugha na bhios an àireamh a ghlacair tuilleadh's beag chum tomhas a' Chràinn a lìonadh. Tha e chum buannaich araon do na h-iasgairibh, agus do'n luchd-gréidhidh tomhas a' Chràinn a ghnàthachadh, do bhrìgh gur e sin an sèol tomhais a's fìrinniche agus a's freagarriache

ing both for buyer and seller, every one should unite in putting an end to the practice of reckoning the fish by numbers, as the law is, that nothing is to be used but the Cran measure, having the Brand of the Board of Fisheries on it.

FISH-CURERS.

If Fish-Curers have the desire they ought to have, to compel the men who fish for them to handle the Herrings with proper care from the time of their capture to that of their delivery, they should certainly do their best to set them a good example, by seeing that every thing is done in their own department strictly as it should be. If they leave their Herrings after delivery in the curing-boxes, exposed to the sun or rain, it is not very likely that they will have much influence in persuading the fishermen to shake the Herrings out of their nets as they are hauling them, or to take any other necessary precaution for their preservation, seeing that all such care would be thrown away if the Fish-Curer should thus neglect the Herrings after he has received them. It is the Fish-Curer's business, therefore, to see that the receiving boxes and tubs have proper awnings over them, and likewise that the barrels, when packed, are properly covered and protected from the sun and rain; and much of the good or bad character of British cured Herrings will depend on the attention which may be paid by Curers to these injunctions, for the neglect of them may, and probably will give an incurable taint to the fish. The sooner salt is applied to the Herrings the better, as it secures the adhesion of the scales, so important to the after appearance of the fish. For this purpose, salt should be sprinkled over them as they are emptied in successive portions from the Cran-measure into the receiving or gutting-box. All Herrings should be gutted,

araon do'n fhear-ceannachaidh agus do'n fhear-reicidh. Bu chòir do na h-uile, uime sin, àontachadh le chèile, chum an cleachdadh sin a ta 'g àireamh an éisg a chur air cùl, do bhrìgh gur e an lagh, nach còir ni sam bith a gluathachadh ach tomhas a' Chràinn, air a chomharrachadh le iarann Bùird na h-Iasgaireachd.

LUCHD-GRÉIDHIDH.

Mu tha an toil aig an luchd-gréidhidh bu chòir a bhì aca, chum a thoirt orrasan a ta 'g iasgach air an son, an sgadan a làimhseachadh gu cùramach o'u àm anns an glacar e, gus an toirear seachad e, bu chòir doibh an dìchioll a dheanamh chum deagh eiseimpleir a chur rompa, le bhì faiceallach gu'n deanar gach ni gu pòngail agus gu dlìgheach air an taobh fein. Mu dh'fhàgas iad an sgadan, an deigh 'fhaotunn, anns na soithichibh-gréidhidh, rùisgte ris a' ghréin agus an uisge, cha'u 'eil e coslach gu'm bì a bheag do chumhachd aca chum ìmpidh a chur air na h-iasgairibh an sgadan a chrathadh as na lìontaibh 'n àm a bhì 'g an tarruing, no a bhì faiceallach air sheòl sam bith mu thearuinteachd an éisg, do bhrìgh gu'm biodh gach cùram mar sin gu'n fhéum, n'am biodh am fear-gréidhidh dearmadach mu'n sgadan an déigh 'fhaotunn. Is e gnothuch an fhir-gréidhidh, uime sin, a bhì faiceallach gu'm bì na soithichean, no na ballain-cumail air an còmhdachadh gu cùramach le brataibh-dùbhraidh, agus mar an céudna, gu'm bì na baraillean, an déigh an lìonadh, gu freagarrach air an còmhdachadh, agus air an dìonadh o'u ghréin agus o'n uisge. Tha mòran aig an aire a bheirear do na h-earailibh so r'a dheanamh, a thaobh deagh-àinm', no droch-ainm' an sgadain a ghréidhear ann am Breatunn, oir ma dhearmadar iad, bithidh an t-iasg, a réir coslais, air mhodh do-leigheas air a thruilleadh. Mar a's luàithe a chuirear salann air an sgadan, is ann a's fearr an gnothuch, do bhrìgh gu'n daingnich e na lannan, ni a ta ro chudthromach air son seallaidh an éisg an deigh làimh. Chum na crìche so, bu chòir salann a chrathadh thairis air, an uair a thaomar e, a chuid is a chuid a' soitheach-tombais a' Chràinn anns an t-soitheach-cutaidh. Bu chòir do'n sgadan a bhì an còmhnuidh air a chutadh,

cured, and packed, on the day they are caught. If this cannot be accomplished, they ought not to be cured as gutted Herrings. They may, however, be cured as un-gutted Herrings, or made into red Herrings.

GUTTERS.

Gutting, and packing also, should commence immediately after the first cran is delivered ; but this practice is too much neglected, particularly on days when the fishing has been partial, or when the state of the tide may have occasioned an irregular delivery. Although a number of Gutters are in attendance, they do not begin until such a quantity of fish is delivered as will give constant employment to all. Thus unnecessary delay, exposure, and deterioration of the fish takes place ; all which might be obviated on such days, and the parties satisfied, by dividing the payment, for the whole number of barrels gutted and packed, equally among all. A most important matter is, to see that the Herrings are properly picked and assorted into Matics, Full-Fish, and Spent-Fish ; and this should be done as the gutting goes on, by having baskets or tubs for each particular sort ; and to prevent all after mistake, the barrels into which these several sorts of fish are separately packed, should be immediately, and severally, marked by means of a marking iron, with respective letters, M———, F———, or S———,

Great care should be taken by Gutters and Packers to remove all fish which have lost their heads, or which have been broken, bruised, or torn, in the bellies, so that they may be packed separately.

Bad gutting, and tearing the bellies of the fish, often arises from the knives being blunt. To prevent this, the gutting knives should be collected, and delivered to one

air a shailleadh, agus air a phacadh, air an là an glacar e. Mar gabh so deanamh, cha bu chòir da a bhì air a shailleadh mar sgadan air a chutadh. Féudar, gidheadh, a ghréidheadh mar sgadan gu'n chutadh, no mar sgadan dearg.

LUCHD-CUTAIDH.

Bu chòir tòiseachadh air an sgadan a chutadh agus a phacadh air bàll an déigh do'n chéud chrann a bhì air a thoirt seachad; ach tha'n cleachdadh so tuilleadh's mòr air a dhearmad, gu h-àraidh air na làithibh anns nach do ghlacadh ach beagan, no an uair nach ceaduich an sèol-mara, an t-iasg a bhì air a thoirt gu rìaghailteach seachad. Ged a tha na h-uiread do'n luchd-cutaidh a làthair, gidheadh, cha tòisich iad, gus am faighear uiread do'n iasg is a bheir obair chunbhalach dhoibh air fad. Mar so, tha moille gu'n fhéum a' tachairt, agus air do'n iasg a bhì air a leagadh ris, tha e an cunnart a bhì air a mhilleadh. Dh' fhéudadh cùisean a bhì air shèol eile, agus a' bhuidheann air fad a bhì air an riarachadh, le roinn chlothrach a dheanamh eatorra fein uile, do'n duais a gheibhear air làithibh mar sin, air son àireimh nam baraillean gu léir, a chaidh a chutadh agus a phacadh. Tha e ro fhéumail a bhì faiceallach gu'n cuirear an sgadan do gach gnè air leth, 'se sin, gu'n roinnear e 'na *Sgadan glan*, na *Sgadan salach*, agus na *Sgadan ruithte*; agus bu chòir sin a dheanamh 'n àm a bhì 'ga chutadh, le soithichibh no le cléibh a bhì deiseil air son gach seòrsa fa leth. Chum nach tuitear ann am mearachd an déigh làimh, bu chòir do na barailibh anns am bheil gach seòrsa éisg air a shailleadh fa leth, a bhì air an losgadh air bàll le iarunn-comharaidh, leis na litrichibh *G*—, *S*—, *R*—, mar chomharaibh aithghear air *Glan*,—*Salach*,—agus *Ruithte*. Bu chòir doibhsan a ta mar so, a' làimhseachadh an éisg a bhì ro chùramach gu'n cùm iad an sgadan sin uile air leth, a chàill na cinn, co math ris an sgadan a bhriseadh, a bhruthadh, no a réubadh 'sa bhòinn, chum gu'n saillear e ann an àit leis fein.

Tha droch cutadh, agus réubadh an éisg as a' chéile, gu tric a' tachairt ma bhrùthas na sgeinean màol. Chum so ath-leasachadh, bu chòir na sgeinean-cutaidh a bhì air an cur uile cuideachd, agus a bhì air an toirt

of the Coopers every evening, who should have the particular duty of seeing them all carefully sharpened on a smooth stone, and returned to the Gutters in the morning. Due attention to this will be likely to produce neater gutting; the bones will be cut and not left exposed; and the fish will not present that ragged appearance which so often disfigures them. Whether the fish are gutted for continental sale or for exportation out of Europe, the orifice left at the top of the belly of the fish should be as small as possible, and particular attention should be paid that the breast be not lacerated or torn down, so as to leave the bones exposed. The incision with the knife should be made in the throat quite down to the backbone, and the knife turned round with the hand, and drawn upwards under the breast-fins, and not downwards along the belly of the fish, otherwise the orifice will be made too large, and the roe or milt will be exposed.

The fish must be cleared, not only of the gut, but of the liver, stomach, and gills, which last, being full of blood, is known to taint the fish in a short time after it is killed; and the incision of the knife should be made down to the backbone, so as to allow the blood to flow freely from the great blood-vessel of the fish, which will tend much to the after preservation of the Herring.

In order to understand the Dutch manner of gutting Herrings, we must suppose that the fish is held in the hollow of the left hand, with its belly uppermost, and the head and shoulders projecting about an inch before the fore-finger and thumb; that the gutting-knife is held in the right hand, with the fore-finger and thumb grasping the blade to within an inch or so of the point; let the knife then be plunged into the throat of the fish at the side next the right hand, and thrust down so as to touch the back-bone, and so forced through to the

gach feasgar do aon do na cùbairibh, agus bu chòir dàsan an aire a thoirt gu'm bi iad uile air an géuracladh gu cùramach air cloich mhìn, agus air an liubhairt a ris anus a' mhaduinn do'n luchd-cutaidh. Cha'n 'eil teagamh, le sùim a ghabhail do so, nach bi an obair ni's snasmhoire air a deanamh;—gearrar na cnàmhan, agus cha'n fhagar ris iad, agus cha bhi an coslas béubanaichte, briste sin air an iasg, leis am bheil co minic mi-mhaise 'ga cur air. Co aca tha'n t-iasg air a chutadh air son a' mhàrgaidh ann am mòr-thìr na h-Eòrpa, no air son dhùchannan an céin, bu chòir do'n fhosgladh a dh' fhàgar aig sgòrnan an éisg a bhi co beag 'sa dh' fhéudas, agus bu chòir a bhi cùramach nach réubar sios am broilleach, air chor is gu'n leigear ris na cnàmhan. Bu chòir do ghearradh na sgeine a bhi air a dheanamh anns an sgòrnan a stigh dl' ionnsuidh a' chnaimh-droma; an sin, rachadh car a chur do'n sgian leis an làimh, agus rachadh a tarruing suas fo na h-itibh-broillich, agus cha'n ann sios air broinn an éisg, oir le sin, bliodh am fosgladh tuilleadh's mòr, agus bhiodh an iuchair agus a' mhealag air an leagadh ris.

Féumar, cha'n e mhàin am mionach a thoirt as an iasg, ach mar an céudna an grùan, a' ghoile, agus na giùrain. Air do na giùranaibh a bhi làn fola, tha fios, mar toirear air falbh iad, gu'm male iad an t-iasg ann an ùine ghoirid an déigh dha a bhi air a ghlacadh. Bu chòir do ghearradh na sgeine a bhi air a dheanamh a stigh dh'ionnsuidh a' chnaimh-droma, chum cead a thoirt do'n fhuil ruith gu sàor a' mòr-chuisle an éisg, ni a ta ro fhéumail chum an t-iasg a ghleidheadh tearuinte an déigh làimh.

Chum an seòl Dùidseach air cutadh an sgadain a thuigsinn, féumar a thoirt fa'near gu'm bheil an sgadan air a chumail ann an glaic na làimh chli le 'bhròinn an ùachdar. Is còir do'n cheann agus do na gùailibh a bhi' dol mu'n cuairt do dh'òirleach a mach air a' choraig agus an òrdaig. Glacar an sin, an sgian-chutaidh anns an làimh dheas, agus biodh gréim aig a' choraig agus an òrdaig air a duilleig mar òirleach do'n ròinn. An sin, sàthar an sgian ann an sgòrnan an éisg, air taobh na làimhe deise, gus an ruig i an cnaimh-droma,

other side, with the point a little projecting therefrom, and let the fore-finger then be turned over the head of the fish, and placed under the point of the knife, and the flat part of the thumb laid on the breast-fins or gip of the fish, and pressed on the broad part of the knife; the entrails are then to be gently started, the gut and gip seized between the knuckles of the fore and middle-fingers, and a sudden pull given, by which means the crown-gut, anatomically called the Plyoric appendages, will be left hanging from the body of the fish, while the gills, fore-fins, heart, liver, &c., will fall into the hollow of the hand. This is what is understood to be the mode of gutting practised by the Dutch, in which it is necessary to observe, that only one pull is required to bring away every thing that they consider to be necessary, when the operation has been performed in a proper manner. In the British method, the only difference is, that a second, and sometimes even a third and fourth pull, are necessary, because the whole of the intestines, including the crown-gut, are extracted. It will thus be found, that the breast or belly of the fish is most frequently lacerated in the act of removing these parts of the entrails, owing to the Gutters making the pull downwards towards the tail of the fish, instead of making it upwards towards the head. Curers should therefore give the most particular instructions to their Gutters to make the pull upwards and not downwards, so as to leave the orifice as small as possible, and to prevent the breast of the fish from being torn. That mode of gutting by which the crown-gut is left attached, is peculiarly well adapted for the continental market, where it is believed that the crown-gut is a powerful influence in improving the flavour of the fish, and where the appearance of the Herring is held to be greatly injured when it has been by chance removed.

agus gus am faicear an ròinn aice air dol troimh air an taobh eile. Lùbar an sin, a' chorag thairis air ceann an éisg, agus cuirtear dìreach fo roinn na sgeine i, air an taobh eile, agus air an àm chéudna, biodh aghaidh na h-òrdaig air a leagadh air itibh-broillich an éisg, agus air a cur gu teann ri taobh leathann na sgeine. Is còir an sin, an greallach a ghlùasad gu socarach, agus gréim a ghabhail do'n mhionach, agus do na h-itibh-broillich eadar uilt na coraig agus a' mheoir-meadhoin, agus le spìonadh grad fàgar am mionach an crochadh a mach as an iasg, agus tuitidh na giùrain, na h-ite-toisich, an cridhe, an grùan, agus gach nì eile, a stigh ann an glaic na làimh. 'Se so an seòl cutaidh a ta air a ghnàthachadh leis na Dùidsich, mu thimchioll an toirear fa'near, nach 'eil féum ach air aon spìonadh, an uair a nithear an gnothuch gu ceart, chum gach nì a thoirt air falbh a chì iad freagarrach. Anns an t-seòl cutaidh Bhreatunnaich, cha'n 'eil ach a mhàin an càochladh so, gu'm féumar draghadh a thoirt air a' mhionach dà uair, agus air amannaibh trì, agus ceithir uairean, mu'n toirear air falbh gach nì ann an taobh a stigh an éisg. Air an dòigh so, tha bliàn an éisg gu ro mhinic air a réubadh, do bhrìgh gu'm bheil an luchd-cutaidh a' toirt an spìonaidh sìos rathad an earbuill, an àit a thoirt suas rathad a' chinn. Bu chòir do'n luchd-gréidhidh, uime sin, sparradh teann a thoirt do'n luchd-cutaidh, an spìonadh a dheanamh suas rathad a' chinn, agus cha'n ann sìos rathad an earbuill, chum am fosgladh a bhì co beag 'sa dh' fhéudas e bhith, agus chum nach réubar broilleach an éisg. Tha'n seòl cutaidh sin, leis am bheil am mionach air fhàgail, ro fhreagarrach air son a' mhàrgaidh air tìr-mòr na h-Eòrpa, far am bheil iad 'sa bhàrail gu'm bheil buaidh ro mhòr aig a' mhionach chum blas an éisg ath-leasachadh, agus far am bheil iad a' cumail a mach, mu bheirear air falbh e, gu'm bi coslas an sgadain gu mòr air a mhilleadh.

PACKERS.

The packing of the fish should be proceeded with as expeditiously as the gutting, and in fact both operations should be carried on at the same time, the usual proportion of persons employed being two in gutting to one in packing. The moment the first Herrings are gutted, the curing process should begin. The proportion of salt to be used must vary according to the season of the year and the nature of the fish, as well as the market for which it may be destined. The Dutch use one barrel of small Spanish or Portuguese salt for sprinkling eleven barrels of Herrings, in order that they may be more conveniently handled, and one barrel of great salt for packing seven and a half or eight barrels of Herrings for the European market; and if this quantity should be found rather small, an additional plateful of salt is introduced into the middle of the cask to supply the deficiency. The calculation for each barrel of Herrings may be about five-sixteenths of a barrel of coarse Spanish salt. It must be observed, however, that whilst the Dutch mode of cure may produce a perishable article of luxury for the table, it is not capable of producing that imperishable article of commerce required by British and continental merchants. But the parties employed in the cure must be the best judges of the quantity of salt to be used for the different markets for which the Herrings may be intended. It is, moreover, difficult to lay down any well-defined rule as to this point, from the circumstance, that there are several qualities and sizes of Liverpool fishing salt, which are of different degrees of strength. Many Curers use only one kind, whilst others use a mixture, and very frequently both Lisbon and Liverpool salt are jointly used for curing the

LUCHD-SAILLIDH.

Bu chòir tòiseachadh air an ìasg a shailleadh leis an ealamhachd leis am bheil e air a chutadh; agus chum an gnothuch a bhi ceart, bu chòir do'n dà obair a bhi air an giùlan air an aghaidh còmhladh, le dithis a bhi 'eutadh mu choinneamh gach aoin a bhios a' sailleadh. Co luath 'sa chutar a' chéud sgadan, toisicheadh an sailleadh air ball. Bithidh an tuairmeis salainn a dh'fhéumar, mòr no beag, a réir an ama do'n bhliadhna, agus nàduir an sgadain, co math is a réir a' mhàrgaidh chum am bheil e air a shonrucladh. Tha na Dùidsich a' crathadh aoin bharaill do shalann mùn na Spàinn, no Phortugail air gach aon bharaill déug sgadain, chum gu'm bi e ni's usa an làimhseachadh, agus tha iad a' gnàthachadh aoin bharaill do shalann gàrbh, chum seachd gu leth, no ochd baraillean sgadain a dheanamh suas air son margaidh na h-Eòrpa. Mu gheibhear gu'm bi an tomhas salainn so leth-char beag, an sin, ath-leasaichear e le làn mèis a bharrachd a bhuileachadh air gach baraille. Tha e air a dheanamh mach gu'n gabh gach barail sgadain beagan ni's lugha n'an treas cuid do'n bharaill, do'n t-salann gharbh Spàinneach. Féumar a thoirt fa'near, gidheadh, ged a dh'fhéudas an sailleadh Dùidseach a bhi freagarrach ni's leoir chum sgadan a ghréidheadh gu blasda, air son am féuma fein, nach dean e an gnothuch idir, chum a leithid do sgadan a ghréidheadh air son a' mhàrgaidh 'sa chòirdeas ris na ceannaichibh ann am Breatunn, no air tìr-mòr na h-Eòrpa. Ach an déigh so uile, féumaidh e bhi, gur iad a' mhuinntir sin a ta air an cleachdadh ri sailleadh, na breitheamhna a's fearr air an tomhas salainn is còir a bhi air a ghnàthachadh air son nam màrgaidhean sin fa leth, dh'ionnsuidh am bheil an t-iasg air a shònrachadh. A thuilleadh air sin, cha'n 'eil e soirbh riaghailtean eagnuidh a thoirt seachad mu'n chùis so, do bhrìgh gu'm bheil iomadh gnè do'n t-salann-iasgaich ann an Liverpool, nach 'eil co-ionann ann an neart. Tha mòran luchd-gréidhidh ann, nach 'eil a' gnàthachadh ach aon seòrsa salainn a mhain, an uair a ta mòran eile a' gnàthachadh seòrsa na dhà feadh a chéile. Tha e gu trie a' tachairt, gu'm bheil salann Lisboin agus Liverpool air an eur feadh a chéile,

Herrings of the same barrel. Thus the quantity of salt required for fish free from glut, and early salted under cover, would be quite insufficient for fish mixed with glut, and delivered in the afternoon of a sultry or wet day. It must be remembered, however, that the use of Spanish or Portuguese salt would produce a much better cured article than is produced by Liverpool salt. The Herrings are then carried to the rousing-tubs, where they receive the first part of the cure, called rousing or roiling—that is, working them well to and fro among salt. In performing this operation, the Packers should mix a proper quantity of salt among the fish as they are emptied into the rousing-tubs, and the Herrings should be turned over continually, until a proper proportion shall have adhered to each. When this has been done, a small quantity of salt should be scattered in the bottom of each barrel, and the Packer should begin by laying the Herrings into the barrel in regular tiers, each tier being composed of rows laid across the barrel, taking care to keep the heads of the Herrings at each end of each row, close to the inside of the staves of the barrel, with their tails inwards, and making up the deficiency in the middle of each row by laying Herrings in the same line. Care should be taken to scatter salt on the heads. The Head Herrings should then be placed. These are laid across the heads of the Herrings already forming the tier, and these Herrings should also receive a sprinkling of salt, which should likewise be thrown into the centre of the tier. The second tier must be packed in the same way, taking care that the Herrings shall be placed directly across those of the first, and so on alternately, the Herrings of each successive tier crossing those of that below it. A proportion of salt should be distributed over each tier, St. Ube's or Lisbon salt being always preferred for this purpose. When the barrel is completed, a little

chum sgadan an aoin bharaille a shailleadh. An uair a bhios an t-iasg glan agus saor o ronnaibh, agus air a shailleadh fo chòmhdach moch 'sa mhaduinn, cha bhi an tomhas salainn a dh' fhòghnas dha an sin, idir ni's leòir air son an éisg a ta air a thruailleadh le ronnaibh, agus a ta air fhàgail gu'n shailleadh gu feasgar, gu sònraichte ma bhios an aimsir bog na bruicheil. Féumar, gidheadh, a chùimhneachadh mu ghnàth-aichear salann na Spàinne, no Phortugail, gu'n deanar gréidheadh ni's fearr leis, na ghabhas deanamh le salann Liverpool. Tha an sgadan an sin air a thoirt a dh' ionnsuidh nan dabhacha-masgaidh, far am faigh e a' chéud chuid do'n ghréidheadh; 'se sin, far an oibrichear e gu maith, air ais agus air adhairt feadh an t-salainn. 'Nàm a bhi' deanamh so, bu chòir do'n luchd-saillidh tomhas freagarrach salainn a thilgeadh am measg an éisg, an uair a thaomar e anns na dabhachaibh-masgaidh, agus bu chòir doibh a bhi sìr charuchadh an éisg, gus an tuit a chòir fein do'n t-salann air gach sgadan fa leth. Air do so a bhi air a dheanamh, bu chòir rud beag salainn a chrathadh air nàs gach baraille, agus bu chòir do'n fhear-saillidh toiseachadh le bhi 'leagadh an sgadain anns a' bharail 'na bhreathaibh riaghailteach. Deanar suas gach breath, le bhi' leagadh an sgadain gu dìreach tarsuing air a' bharail; ach féumar cùram a ghabhail, gu'n càraichear na cinn dlùth ris na clàraibh air gach taobh, leis na h-earbuill a stigh, agus gu'n deanar suas am meadhon gu cothromach a réir sin. Féumar a bhi cùramach gu'n crathar salann air na cinn;—an sin, biodh an sgadan cinn air a chàradh suas, 'se sin, an sgadan a chuirear tarsuing air cinn nan sgadan leis an d'rinneadh suas a' bhreath a leagadh a cheana, agus faigheadh e crathadh beag salainn, a ruigas a stigh gu meadhon na breith. Is còir an dàrna breath a shuidheachadh ceart mar a rinneadh a' chéud bhreath, ach is còir di a bhi air a leagadh gu dìreach tarsuing air a' chéud aon, mar so, bithidh sgadan gach breith fa leth tarsuing air a chéile. Bu chòir tomhas riaghailteach salainn a sgaoileadh thar gach breath, agus air son so, tha roghainn 'ga deanamh do shalann St. Ube, no Lisbon. An uair a bhios am barail làn

additional salt should be put on the top tier. Herrings intended for the Continent should be packed on their backs ; but for the Irish market they are preferred when packed flat, or more on their sides. The fish in each barrel should be all of the same kind and quality throughout. The nefarious practice of packing inferior Herrings in the middle of the barrel, or superior Herrings at the top, is always discovered, sooner or later, to the confusion and loss of character of the Curer. The barrels should be filled above the chime of the cask, in which state they are allowed to stand till the following day, or even longer, when, by the pining or shrinking of the Herrings from the effects of the salt, they fall down so much in the barrel that it requires to be filled up. The moment the barrels are packed, they should be properly covered over, to prevent the sun's rays or rain penetrating the fish. All vessels which go to cure on open beaches or shores should be provided with old sails, or some other such covering, to protect the fish from the sun and rain ; for if spread on the beach without any such protection, they will infallibly be spoiled.

COOPERS.

It is the duty of the Cooper to see that all his barrels are properly made, and of the legal size. It is of the greatest importance that he should ascertain whether they are sufficiently tight for containing the original pickle, because there is no after remedy for the evil effects produced in the fish by its escape. Barrels should be constructed of well-seasoned wood, and be made tight in the bottoms, and seams, and croze, by introducing the broad-leaved water plant called the sedge or flag, which would tend to secure the original pickle under all circumstances. During the period of the curing, the Cooper's first em-

bu chòir beagan a bharrachd salainn a chur air a' bhreathmullaich. Bu chòir do'n sgadan a ta air a shònrachadh air son mòr-thìr na h-Eòrpa, a bhi air a leagadh air a dlùim; ach air son a' mhargaidh Eirionnaich, nithear roghainn deth, an uair a leagar còmhnard e, no leth-char air a thaobh. Bu chòir do'n iasg anns gach baraill a bhi gu léir do'n aon seòrsa agus gnè. Tha'n cleachdadh ro olc sin, trid an cuirear droch sgadan am meadhon a' bharaille, agus sgadan maith an uachdar, air' fhaotuinneach a mach luath no mall, chum nàir agus mi-chliu don fhear a ta 'ga ghréidheadh. Bu chòir na baraillean a lìonadh os ceann an càrra, agus am fàgail 'nan seasamh mar sin gus an ath là, no eadhon nì's faide. Mar a leaghas an salann, tuitidh an sgadan sìos, air chor is gu'n féumar na baraillean a bhi air an lìonadh suas a rìs. Air bàll, an uair a bhios na baraillean làn, bu chòir doibh a bhi gu h-ìomchuidh air an còmhdachadh, chum nach ruig gathan na gréin, no'n t-uisge air an iasg. Bu chòir do na soithichibh sin uile, a ta air an sònrachadh air son saillidh an sgadain air na tràighibh, no air na cladaichibh fosgailte, a bhi air an uigheamachadh le seann siùil, no le nithibh freagarrach eile, chum an t-iasg a dhìonadh o'n ghréin agus o'n uisge; oir ma sgaoilear air a' chladach e, gu'n a leithid sin do chòmhdach millear e gu cinnteach.

NA CÙBAIREAN.

'Se dleas'nas a' chùbair a bhi faicilleach gu bheil a' bharaillean gu léir air an deanamh gu ceart, agus gu bheil iad do'n mhèudachd laghail. Tha e anabarrach féumail g'um faigh-eadh e mach am bheil iad dìonach nì's leoir chum a' chéud phiceal a ghleidheadh, do bhrìgh mu chailleas iad e, nach 'eil innleachd air ath-leasachadh a dheanamh air son an dòigh air am millear an t-iasg. Bu chòir do na barailibh a bhi air an deanamh a dh' fhiodh air a dheagh chaoineachadh, agus bu chòir aire a thoirt gu'n deanar dìonach iad aig an càrr, agus eadar na clàran, leis an luibh-uisge sin ris an abrar an gàll-sheiliseir, no an luachair-mhòr, a chum gu'n gléidhear a' chéud phiceal, ge b'e ciod a thachair. Aig àm an t-saillidh, bu chòir do'n chùbair,

ployment in the morning should be to examine every barrel packed on the previous day, in order to discover if any of them have lost the pickle, so that he may have all such barrels immediately repacked, salted, and pickled. A very common practice is to pour pickle repeatedly into barrels of the previous day's packing, which have thus run dry, without having, in the first place, secured the leak; and then afterwards to use the Herrings of such dried barrels for filling up such barrels of Herrings as are well cured and tight. This is a practice which should never be allowed, as the distribution of these dry, and consequently bad Herrings, amongst the Herrings of a number of otherwise well cured barrels, has a tendency to destroy the whole.

As already stated, the Cooper in charge should see that the Gutters are furnished every morning with sharp knives. He should be careful to strew salt among the Herrings as they are turned into the gutting boxes—give a general but strict attention to the Gutters, in order to insure that they do their work properly—see that the Herrings are properly sorted, and that all the broken and injured fish are removed—take care that the fish are sufficiently and effectually roused. Then he should see that every barrel is seasoned with water, and the hoops properly driven before they are given to the Packers. He should likewise keep his eyes over the Packers, to see that the tiers of Herrings are regularly laid and salted, and that a cover is placed on every barrel immediately after it has been completely packed. The Cooper should write with red keel or black coal the name of the Packer on the bottom or quarter of each barrel as it is delivered, together with the date of packing, and the letter M, or F, or S, for Mixed, Full, or Spent Fish, as the case may be. Where this excellent regulation is practised, it is found to be a check to bad or imperfect selection, as well as to

mar a chéud obair anns a' mhaduinn, sùil a thoirt air gach baraill a shailleadh air an là roimhe sin, a dh' fhéuchbainn an do chàill aon air bith dhiubh am piceal, air chor is ma chàill, gu'n deanar suas a rìs e le salann agus piceal. Tha e 'na chleachdadh cumanta, a bhi taomadh picil a rìs 'sa rìs, anns na baraillibh a shailleadh air an là roimhe sin, agus a chàill am piceal, gu'n saothair sam bith a ghabhail an toiseach chum an deanamh dìonach. An sin gabhar sgadan nam baraillean sin a ta mar so air tiormachadh, chum baraillean eile a lìonadh suas, a ta dìonach agus air an deagh shailleadh. Cha bu chòir so a bhi idir air a cheadachadh, do blùigh, an uair a mhasgar an droch sgadan tioram sin, air feadh nan deagh sgadan a ta anns na baraillibh eile, gu'm millcar a réir coslais, an t-iasg air fad.

Mar a dh' ainmicheadh a cheana, bu chòir do'n eilùbair a bhios a lathair, a bhi faicilleach gu'm faigh an luchd-eutaidh sgeinean géura gach maduinn. Féumaidh e a bhi cùramach gu'n crathar salann am measg an sgadain 'n àm a bhi 'ga thaomadh anns na soithichibh-eutaidh. Bu chòir da a bhi furachair gu'n dean an luchd-eutaidh an obair fein gu ceart, agus aire a thoirt gu'm bi an sgadan air a roinn 'na sheòrsaibh a réir a ghnè, agus gu'n cuirear air leth esan uile a bhriseadh agus a mhilleadh; agus an sin, gu'n cuirear gu ro mhaith air feadh a ehéile e, anns an dabhaich-mhasgaidh. Féumaidh e, an sin, a bhi cinnteach gu'm bi gach baraill air a dheagh bhogachadh le h-uisge, agus gu'm bi na cearcaill air an cur gu freagarrach, mu'n toirear iad do'n luchd-saillidh. Bu chòir da, mar an ceúdna, sùil a chumail air an luchd-saillidh, a dh' fhaicinn gu'm bi na breathan sgadain air an leagadh, agus air an sailleadh gu riaghailteach, agus gu'n cuirear còmhdaich air gach baraill air bàll, an déigh dha bhi air a lìonadh suas. Bu chòir do'n eilùbair àinm an fhir-saillidh a sgrìobhadh le caile-dheirg, no le gual-dubh, air màs, no air taobh gach baraille, an uair a bheirear seachad e, agus mar an ceúdna, an là air an do shailleadh e, agus na litrichean *G*—, *S*—, no *R*—, mar chomharadh eo aca is e sgadan *glan*, *salach*, no *ruithte*, a ta anns gach baraill fa leth. Far am bheil an riaghailt ghasda so air a cleachdadh, gheibhear gu'm bi i 'na bacadh air droch thaghadh air an iasg,

bad gutting and irregular salting ; and it prevents the different descriptions of Herrings from being packed up together, when the barrels are unheaded in order to be filled up, or for being bung packed.

After the Herrings have been allowed one, two, or, at most, three days to pine, the barrels should be filled up with Herrings of the same date as to capture and cure, and of the same description as those which they contain, care being taken not to pour off much pickle, or unduly to press the fish. The barrels should then be headed up and tightened in the hoops, and laid on their sides, and this always under cover, so as to be shaded from the sun's rays, which are seriously injurious to the fish ; and they should be rolled half over every second or third day, until they are bung packed, which part of the process of cure should be performed within fifteen days from the date of the capture of the Herrings ; and not sooner than that period, if it be the object of the Curer to obtain the Official Brand of the Board of British Fisheries at bung packing. When the pickle has been sufficiently poured off, a handful of salt, if required, should be thrown around the insides of the barrels, and the Herrings should be pressed close to the insides of the casks, and additional fish, of the same description and date of cure should be packed in until the barrel is properly filled, after which it should be flagged, headed, blown, and tightened ; and the curing marks should be scratched on the side. The barrel may then have its pickle poured in, and be finally bunged up.

REPACKING HERRINGS.

For the purpose of preserving the fish in warm climates, and in order to enable them to be exported out

agus mar an céudna air droch chutadh, agus air sailleadh neo-riaghailteach. Leis an riaghailt so, cha chuirear gach seòrsa fa leth do'n sgadan air feadh a' chéile, an uair a bheirear na cinn as na barailibh, chum an deanamh suas, no chum an ath-lionadh.

An uair a thugadh cead sìolaidh do'n sgadan rè aoin, dhà, no a' chuid a's faide rè thri làithean, bu chòir na baraillean a lionadh suas le sgadan a ghlacadh agus a shailleadh aig an aon àm, agus do'n aon seòrsa ris an sgadan a ta anns na barailibh a cheana, agus bu chòir an aire a thoirt nach dòirt-e ar a bheag do'n phiceal, agus nach deanar mòran bruthaidh air an iasg. Bu chòir an sin, na cinn a chur anns na barailibh, an teannachadh anns na cearcallaibh, agus an cuir 'nan luidh air an taobh. Rachadh so a dheanamh an còmhnuidh fo chòmhdach, chum an dìonadh o ghathaibh na grèin, a ta ro mhillteach do'n iasg. Tha e freagarrach an sin, leth char a chur diùbh, gach dàrna agus treas là, gus an ath-lionar iad. Bu chòir na baraillean ath-lionadh air an taobh a stigh do chuig là déug o'n àm 'san do ghlacadh an sgadan; agus na biodh e air a dheanamh ni's luaithe no'n uine sin, mu's miànn leis an fhear-gréidhidh comharadh dligheach Bùird na h-Iasgaireachd Bhreatainnich fhaotuinn aig àm an ath-lionaidh. An uair a bhios ni's leòir do'n phiceal air a tharruing deth, bu chòir glacadh salainn a chrathadh ceithir thimchioll a' bharail air an taobh a stigh, 'se sin ma chithear féum air; agus bu chòir an sgadan a dhlùthadh gu teann ris na clàraibh, agus am barail a dheanamh suas le sgadan do'n aon seòrsa agus sailleadh, gus am bi e air a dheagh lionadh. Air do so a bhi air a dheanamh, féumaidh am barail a bhi air a dhùnadh, air a dhìonachadh, air a theannachadh, air a shéideadh suas, agus air a chomharrachadh air an taobh le comharraibh a' ghréidhidh. Féudar an sin, am piceal a thaomadh a stigh, agus am barail fadheoidh a dhùnadh suas gu h-ìomlan.

ATH-SHAILEADH AN SGADAIN.

Féumaidh gach uile sgadan a bhi air 'ath-shailleadh, chum gu'n gléidh e ann an dùchannaibh teth, agus chum gu'm féudar a chur as an Roinn-Eòrpa

of Europe, all Herrings must be repacked ; and before the repacking commences, fifteen days must have intervened from the date of their capture and first salting. For this purpose the Herrings must be emptied out of each barrel in which they were originally packed, into a large tub or box, filled with clean fresh water, where they are washed and freed from all glut ; after which they are placed in open baskets, to allow the water to escape, and then weighed, when 224 lbs. of fish are allowed to each Packer for every barrel. The fish are then regularly repacked into the same barrels, and Liverpool great salt is strewed on each tier as packed, until the barrel is full ; the fish are then dunted, that is, the head is jumped upon by the Packer, and when the quantity of fish weighed does not fill the barrel more is added. The barrel is then headed, flagged, and tightened ; the quarter of the head end of the barrel hooped up, and an iron binding hoop, one inch in breadth, driven on each end ; the chime hoops are then nailed, which completes the process of full-binding. The barrels are then placed in tiers—each bored in the centre of the bulge—filled up with strong pickle made from clean salt—and bunged ; and they are then ready for inspection, official branding, and shipment to any place out of Europe.

Herrings are called Sea Sticks when they are shipped off soon after being taken and cured, so as to be first in the market for early consumption, and so to obtain a high price. When barrels containing Sea Stick Herrings are cured on board of vessels cleared out for the fishery, or shipped to be carried to other stations, if the lower tiers are not carefully stowed, and the barrels well hooped and tightened, they are apt to lose the pickle, and if kept for any length of time in this state, they will be found on landing to be gilded and tainted. Sufficient attention and care will prevent this, and if it be properly guarded

do thìribh eile. Mu'n tòisichear air an ath-shaillleadh, féumaidh ùine cluig là déug dol seachad o'n àm 'san do ghlac-adh, agus an do shailleadh an toiseach e. Chum na crìche so, féumaidh an sgadan a thaomadh a mach as gach baraill anns an do shailleadh an toiseach e, ann an dabhaich, no ann am ballan mòr, air a lìonadh le h-uisge glan, far an nighear agus an glanar o gach truailidheachd e. An déigh sin, cuirear ann an cléibh e, chum gu'n ruith an t-uisge trompa, agus air da a bhi 'silcadh mar sin rè tamuill, cothromaichear air a' mheidh e, agus bheirear dà chéud punnd cudthruim éisg do gach fear-saillidh fa chomhair gach baraill. Tha'n t-iasg, an sin, air a dheanamh suas gu riaghailteach anns na baraillibh céudna, agus tha salann garbh Liverpool air a chrathadh air gach sreath a leagar, gus mar so an ath-lìonar am baraill. An sin, léumaidh am fear-saillidh le uile chudthrom air uachdar an éisg, chum a gheinneadh sios; agus mar lìon an tomhas éisg a fhuair e, am baraill, gheibh e tuilleadh. An sin, tha'm baraill air a dhùnadh, air a dhìonachadh, agus air a theannachadh. Cuirear na cearcaill gu gramail air an dà cheann, agus daingnichear iad le cearcall làidir iaruin, òirleach air léud, a chur air gach ceann. Tha na cearcaill-eàrra, an sin, air an tàirneadh, agus le sin criòchnaichear làn-cheangladh nam baraillean. Leagar an sin, 'n an sreathaibh iad ri taobh a chèile,—tollar gach aon 'sa nheadhon,—lìonar suas e le piceal làidir air a dheanamh do shalann glan, agus dùnar gu teann e. Tha na baraillean, an sin, deas gu bhli air am féuchainn, gu bhli air an comharrachadh le iaruin a' Bhùird, agus gu bhli air an cur air muir dh' ionnsuidh àite sam bith a mach as an Roinn-Eòrpa.

Tha sgadan ann nach 'eil idir air 'ath-shaillleadh air an dòigh so. Cha'n ath-shailllear e, an uair a cuirear air luing e, goirid an déigh dha a bhi air a ghlacadh, agus air a shailleadh, chum a bhi air thoiseach anns a' mhàrgadh, chum grad fhéum a dheanamh dheth, agus chum luach mòr fhaotuinn air a shon. An uair a tha baraillean sgadain gu'n a bhi air an ath-lìonadh, air an saillleadh air soithichibh iàsgaich, no air an cur air bòrd gu bhli air an giùlan dh' ionnsuidh àitean eile, tha iad calamh air am piceal a chàll, mar bi na breithean ìochdarach air an socrachadh gu cùramach ann an grùnd na luinge; agus mar bi na baraillean air an teannachadh agus air an deagh dhàingneachadh le cearcallaibh. Mu dh' fhàgar fad anns an staid sin iad, gheibhear iad, 'n àm a bhli 'gan cur gu tìr, air an trùailleadh, agus a' fàs buidhe. Cha tachair so, gidheadh, mu bheirear faiceall a thaobh nan nithe so;

against, the cure of the Herrings will be improved by the voyage, as they will be free from undue pressure, and as they will be found when opened to be well flooded with pickle. Whether the barrels of Herrings are prepared for the Official Brand of the Board of British Fisheries or not, they should be kept constantly full of pickle, and where a leak appears, the barrel should be made tight, or the fish should be taken from it and repacked into a sufficient barrel. Barrels should be rolled half round weekly until shipment. Herrings must have been cured for fifteen days before the Official Brand can be applied for. If the Curer wishes to have the Brand, he must give the Officer notice, stating that it is his intention at such a time and place to have so many barrels of Herrings branded—Maties or Full Fish—as the case may be, and as a matter of course the Officer attends. In the first place, he sees that the owner's name, with the place where and the year when cured, are branded on the barrels, all of which should be done prior to the Officer's appearance. The Officer having taken the required declaration of the Curer, and gauged the barrels, each of which ought to be of a size capable of containing 32 gallons English wine measure, he proceeds to examine the casks and Herrings, causing so many thereof to be opened for his inspection, taking out the heads and the bottoms of the alternate barrels respectively, so as to satisfy himself that the Herrings are in all parts of the barrels perfectly what they ought to be, before he proceeds to apply the brand to them.

A Cooper should be in constant attendance on board of every vessel during the time Herrings are shipping, to replace hoops, chimes, or any other damage the barrels may have sustained by cartage, and to nail the chime hoops, if not previously done. The master of every vessel should be bound to use slings, and not crane hooks for hoisting

ch an àite sin, théid an sgadan am feabhas leis a' chùan-thuras, do
 rìgh nach bi e gu mi-chothromach air a bhruthadh anns na
 barrailibh, agus do bhrìgh gu'm faighear e, 'n àm a bhi 'fosgladh
 am baraillean, air a dheagh chòmhdachadh leis a' phiceal. Co
 ca tha no nach 'eil na baraillean sgadain air an deasachadh chun
 'bhi air an comharrachadh le h-iaruinn Bùird na h-Iasgaireachd
 breatuinnich, bu chòir an cumail an còmhnuidh làn picil ;—agus
 r am faicear eú-dion ann an aon air bith dhiubh, bu chòir an
 barrail sin a theannachadh, no an t-iasg a thoirt as, agus a shailleadh
 in am barrail dìonach. Bu chòir leth char a thoirt do na ba-
 railibh gach seachduin mu'n cuirear air bòrd soithich iad. Féum-
 idh an sgadan a bhi air a shailleadh cùig là déug mu'n iarrar iarun
 Bhùird chum a chomharrachadh. Mu's math leis an fhear-gréidhidh
 an sgadan aige fhaotuinn air a chomharrachadh, féumaidh e fios air
 an a thoirt do'n Oifigeach, a' cur an céill gu'm bheil a rùn air,
 i read so do bharrailibh fhaotuinn air an comharrachadh, aig àm
 agus aig àite sònraichte ; 'se sin, na h-uiread bharraillean do sgadan
 an, no do sgadan salach, mar a dh' fhéudas a' chùis a bhi ; an
 n, ni an t-Oifigeach gu'n teagamh a dhleas' nas fein. Anns a'
 éud àite, tha'n t-Oifigeach a' sealltuinn am bheil àinm sealbh-
 dair an sgadain, maille ris an àit, agus a' bhliadhna anns an do
 shailleadh e, air an gearradh air na barrailibh, nithe bu chòir a bhi
 éunta mu'n tig an t-Oifigeach idir. Air do'n Oifigeach am fear-
 réidhidh a chur air fhocal, a réir nan riaghailtean, agus air da
 a baraillean a thomhas, agus fhaicinn gu'n cùm gach aon diubh,
 ar bu chòir da a dheanamh, dà ghalan dhéug thar fhichead do'n
 thomhas fìona Shasunnach, théid e, an sin, air aghaidh a dh' fhéuchainn
 taid nam baraillean agus an éisg. Chum na crìche so, bheir e
 rdugh na h-uiread do na barrailibh fhosgladh, le bhi 'toirt nan
 eann agus nam màs asda mu'n seach, chum e fein a dheanamh
 innteach mu'n comharraich e iad, gu'm bheil an sgadan gu léir, anns
 ach àite fa leth do na barrailibh, mar bu chòir da a bhi.

Bu chòir cùbair a bhi do ghnàth a' frithealadh air gach soitheach,
 an àm a bhi 'cur an sgadain air bòrd, chum gach cearcall no earr briste
 chàradh ; chum gach dochunn eile a dheanamh suas a dh' fhéudadh
 a baraillean fhaotuinn, le bhi 'gan giùlan air chairtibh ; agus chum na
 cearcail-eàrra a thàirneadh, mar d' rinneadh sin roimh làimh. Bu chòir
 oirt air gach sgiobair soithich na baraillean a thogail gu bòrd le bùill
 hòrcaich a cheangal umpa, agus cha'n ann le cromagaibh-gramachaidh,

the barrels on board, and to stow every barrel bung upwards, without the use of a crow-bar.

The superiority of Dutch cured Herrings arises chiefly from scrupulous attention being given to the different directions which have been detailed in this Treatise, and in a great degree also to Lisbon or Saint Ube's salt only being used in their cure, as well as to their being packed into oak barrels alone, whilst ours are cured with Liverpool salt, and packed into barrels made of birch or alder.

As it is extremely desirable, and very much for the interest of fishermen, and all parties concerned in the Herring fisheries, that the practice of taking Herring fry, or undersized Herrings, should be put an end to, each fisherman should hold it to be his duty to aid the Board of British Fisheries in stopping it. It is chiefly under the pretence of taking Sprats or Garvies that this destructive practice is pursued. It is therefore important that the distinguishing marks of the Young Herring, and the Garvie or Sprat, should be so generally known as to be rendered familiar to all. These have been described by Mr. James Wilson of Woodville, the well known naturalist, in a communication made to the Secretary of the Board, from which the following is extracted:—

“*1st.* The first character to which I would direct your attention, is one which is so distinguishable by touch as well as sight, that it would be quite easy by means of it to divide into two separate portions the largest and most intermingled mass of these fishes, even in total darkness. I refer to the jagged or spiny edging which prevails along the lower outline of the Sprat or Garvie, almost all the way from throat to tail. This character is scarcely at all perceptible in the true Herring. It is slightly developed in the fry, but soon disappears. It seems never absent in the Garvie, but grows with its growth, and presents so

leis am féudar na li-eàrran a bhriseadh ; agus a ris, bu chòir na baraillean a leagadh gu socrach ann am broinn an t-soithich, le tùill nan àrcan os an ceann, gu'n fhéum a chur air geimhleig.

Tha feabhas an sgadain a ghréidhear leis na Dùidsich, gu h-àraidh ag éiridh, o bhi 'toirt géill air mhodh ro chùramach do na rìaghailtibh sin air fad, air an tugadh ìomradh anns an leabhar bheag so ; agus mar an céudna ann an tomhas mòr, o bhi 'ga shailleadh a mhàin le salann Lisboin no St. Ube, ann an clàraibh daraich ; an uair a ta an sgadan againne, air an làimh eile, air a shailleadh le salann Liverpool, agus air a dheanamh suas ann an clàraibh beithe, no feàrua.

Air da a bli 'na ui ro ìomchuidh, agus chum mòr bhuanachd do na h-iasgairibh, agus do gach cuideachd aig an bheil gnothuch ri iasgach an sgadain, cùl a chur ri cleachdadh a bli 'glacadh Sil an sgadain, no a' mheanbh-sgadain ; bu chòir do gach iasgair fhaicinn 'na dhleas'nas dha fein, còmh-nadh a dheanamh le Bòrd na h-Iasgaireachd Bhreatainnich, chum so a dheanamh. Tha'n cleachdadh mìlteach so air a leantuinn fo'n leisgeul, a bli 'glacadh an éisg ris an abrar an *Gearr-sgadan*. Tha e, air an aobhar sin, 'na ni cudthromach, gu'm biodh na comharan eadar-dhealachaidh a ta eadar Siol an sgadain, agus an Gearr-sgadan, air an deanamh co aithnichte is gu'm bi fios cinnteach aig na h-uile mu'n timchioll. Thugadh cunntas air na comharaibh sin, leis an duine fhòghluimte Mr. Séumas Wilson ann an Woodville, ann an litir a chuir e dh' ionnsuidh Rùn-chléirich a' Bhùird, as an tugadh na nithe a leanas.

I. Aite. Is e a' chéud chomhar air an iarrainn beachd a ghabhail, aon a tha co furasd aithneachadh, an dà chuid le faireachadh nam mèur, agus le sealladh nan sùl, is gu'm biodh e 'na ni soirbh an dà ghnè éisg sin a chur air leth eadhon anns an dòrchadas, ged bhiodh iad air am masgadh a'm measg a chéile ann an aon tòrr. Is e an comhar a ta agam 'san amharc, an fhoir bhiorach no stobach, a gheibhear air iomall ìochdarach a' Ghearr-sgadain, gu h-inbh bhig rè na slighe eadar an sgòrnan agus an t-earbull. Is gann a mhothuichear an comhar so idir anns an fhìor sgadan. Mothuichear e ann an tomhas beag ann an siol an sgadain, ach cha'n fhad a mhaireas e. Ach anns a' Ghearr-sgadan, air an làimh eile, chithear an comhar so an còmhnuidh ; oir fàsaidh e le 'fhàs, agus gheibhear

stiff a tothing along the abdominal line, that if a fish is held not very tightly by the sides between the finger and thumb, and then a finger of the other hand is pressed along that under line from tail to throat, the projections will present so much resistance that the fish itself will be moved forwards.

“2*d.* The eye of the Herring is proportionally larger than that of the Garvie, so that if you place a young Herring beside a Garvie of greater size, its eye will nevertheless be larger than that of the Garvie, and if the fishes are themselves of the same size, the difference of the eye will be of course the more perceptible.

“3*d.* The third character is less obvious, till attention is called towards it, then the two preceding, but it is of equal importance, being not less constant and discriminative. If you observe the position of the dorsal or back fin of the Herring, and suppose a line drawn perpendicularly downwards from its foremost portion where it enters the back, as in the annexed figures, you will find that such line will invariably fall *in advance* of the ventral or belly fin beneath it. But if you draw a similar line from the front portion of a Garvie’s dorsal fin, it will invariably drop *behind* the insertion of the ventral fin.

“4*th.* The fourth character of distinction results from or is connected with the character just mentioned. There is a shorter space and fewer divisional lines between the pectoral or breast fin, and the ventral fin in the Garvie, than in the Herring, so that the anterior portion of its body is less elongated.

“5*th.* The divisional plates or segments which occupy the lower space between the pectoral and ventral fins, are larger in size and fewer in number in the Garvie than in the Herring, there being about 15 in the former and about 20 in the latter. In conformity with this distinction in

e 'na shreath eo cruaidh, agus co fiaealach air fad bléin an éisg, is mur beirear gu teann air dà thaobh an éisg, cadar a' chorag agus an òrdag, gu'n sgiolc e mach as an làimh le neart nan bior, an uair a shùathar mèur na làimh' eile nan aghaidh, air tàrr an éisg, o'n earbull gu ruig an sgòrnan.

II. Aite. Tha sùil an Sgadain ann an coimeas ni's modha ann am mèud na sùil a' Ghearr-sgadain, air chor is ma chuirear meanbh-sgadan ri taobh Gearr-sgadain ni's modha na e fein, chithear gu'm bi an t-sùil aige ni's mòdha na sùil a' Ghearr-sgadain; agus ma bhios na h-iasgan iad fein co-ionann ann am mèud, chithear an sin barrachd atharrachaidh ann am mèud nan sùl aca.

III. Aite. Cha'n 'eil an treas comhar co soilleir ris an dithis a dh' àinmichadh, gus an gabhar fìor bheachd air, ach tha e ceart co cudthromach, air dha a bhi co-ionann seasmhach mar chomhar eadar-dhealachaidh. Ma bheachdaichear air suidheachadh na h-ite-dhroma aig an sgadan, agus ma tharruingear sgrìoch dìreach tarsuing air an iasg, o'n fhoir a's fhaide air thoiseach do'n ite-dhroma dh' ionnsuidh a' bhléin, (mar anns na dealbhaibh a leanas) chithear gu'n tuit an sgrìoch sin an còmhnuidh air thoiseach air an ite-bhléin. Ach ma nithear sgrìoch air an dòigh chéudna, o'n fhoir a's fhaide air thoiseach do'n ite-dhroma aig a' Ghearr-sgadan, tuitidh an sgrìoch sin, an còmhnuidh air dheireadh air an ite-bhléin.

IV. Aite. Tha'n ceathramh comhar ag éiridh o'n chomhar a dh' ainmichadh mu dheireadh. Tha astar ni's giorra, agus tha na sgrìochan dealachaidh ni's lugha ann an àireamh anns a' Ghearr-sgadan, cadar an ite-bhroillich agus an ite-bhléin, na tha iad anns an fhìor Sgadan, air chor is gu'm bheil leth-toisich a' Ghearr-sgadain ni's giorra.

V. Aite. Tha na h-earrainncan-dealachaidh a gheibhear air a' bhliàn eadar an ite-bhroillich agus an ite-bhléin ni's modha ann am mèud, agus ni's lugha ann an àireamh anns a' Ghearr-sgadan na anns an fhìor Sgadan, oir cha'n 'eil ach mu chuig déug do na h-earrainnaibh sin anns a' Ghearr-sgadan, an uair a tha mu fhichead anns an fhìor Sgadan. A réir a' chomhair so

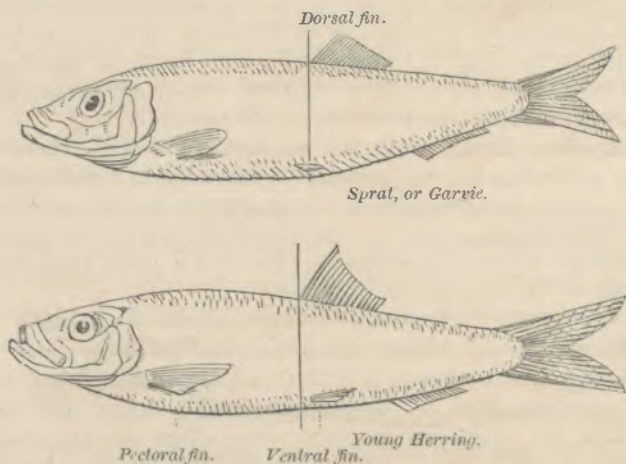
the outer aspect, the number of ribs is different, being considerably smaller in amount in the Garvie than in the Herring.

“Many other distinctions of a minuter kind are known to naturalists, but I think the preceding will suffice for the object you have in view, viz. that the difference between the Sprat or Garvie, and the fry of the true Herring, may be ascertained with ease and accuracy by all who desire to do so. I subjoin an outline sketch of a Garvie and a young Herring, to show the five points above referred to.”

By order of the Honourable the Commissioners.

THOS. DICK LAUDER,
Secretary Board of Fisheries.

ROYAL INSTITUTION,
26th June, 1845.



o'n leth a muigh, tha eadar-dhealachadh ann an àireamh nan aisnean aig an dà iasg so ; oir tha'n àireamh sin ni's lugha anns a' Ghearr-sgadan na anns an fhior Sgadan.

Ghabh daoine fòghluimte beachd air iomadh comhar beag eadar-dhealachaidh eile, eadar an dà ghnè éisg so ; ach tha mi a' meas gu'm foghainn na dh' ainmicheadh, air son a' chuspair a ta 'san amharc ; 'se sin, gu'm féud an t-atharrachadh a ta eadar an Gearr-sgadan agus am fìor Sgadan, a bhi air fhaotuinn a mach gu furasd agus gu cinnteach leo-san uile leis am miann sin a dheanamh. Chuir mi sìos an so dealbh a' Ghearr-sgadain, agus mar an céudna dealbh an t-Silsgadain, chum na cuig comharan sin a nochdadh, air an d'rinneadh iomradh a cheana.

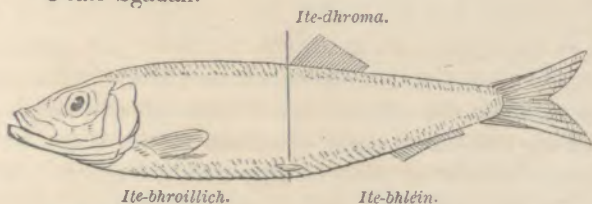
Air iarrtas na Cuideachd Urramaich.
TOMAS DIC LAUDER.

Rùn-chléireach Bùird na h-Iasgair eachd Bhreatuinnich.

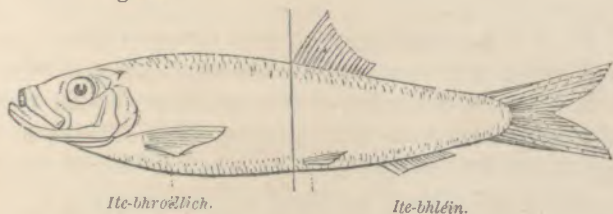
AN TIGH-SUIDHEACHADH RÌOGHAIL.

26mh Mios meadhoin an t-Samhraidh, 1845.

Gearr-Sgadan.



Siol-Sgadain.



DIRECTIONS

FOR

CURING COD, LING, TUSK, AND HAKE.

*Printed and Circulated by the Honourable the
Commissioners of the Board of
British Fisheries.*

BEFORE noticing the cure of Cod, Ling, Tusk, and Hake, it may be right to mention, that where circumstances afford it, welled smacks should always be employed in the capture of the fish; for the fishermen can not only better preserve their bait in good condition in such craft, but the process of cleaning and salting the fish as they are caught, can be carried on in them with the greatest convenience and advantage. But whether the fishing be so prosecuted, or by means of boats, it is essential never to allow the lines to remain so long down that the fish may die upon them; and if boats are employed in their capture, they ought to return to the shore with the fish, as soon as possible after they are caught; and the fish taken on different days ought never to be mixed together.

As it is an unquestionable fact, that two parcels of fish, which are of equal size and quality when taken will, from the difference of the cure alone, obtain very different prices in the same market,—it is obvious, that not only the knowledge, but the practice of the best mode of curing, must be of the most essential importance to the individual Curers, as well as to the country from which the article of commerce is to be exported. And surely, when it is understood, that it is not extra expense

AN SÈOL AIR AN CÒIR

AN TROSG, AN LANGA, AN TRAILLE,

AGUS AM FALAMAIR, A GHRÉIDHEADH.

*Air a chlòdh-bhualadh, agus air a chraobh-sgaoileadh,
le Cuideachd Urramaich Bùird na
h-Iasgair eachd Bhreatuinnich.*

MU'N toirear fa'near gréidheadh an Truisg, na Langa, na Traille agus an Fhalmair, tha e ìomchuidh ainmeachadh, gu'm bu chòir soithichean le tobraichibh annta, a bhì air an gnàthachadh far am bheil e goireasach sin a dheanamh ann an glacadh an éisg. Anns na soithichibh sin, tha comus aig na h-iasgairibh, cha'n e mhàin na bidhannan agus na magharan aca a ghléidheadh ann an deagh òrdugh; ach mar an céudna, an t-iasg a ghlannadh agus a shailleadh le cothrom agus buannachd, mar a ghlacar e. Ach co aca a nithear an t-iasgach mar so, no le bàtaichibh, bu chòir a bhì ro chùramach nach fàgar na lìn uine co fada fodba, is gu'm bàsuich an t-iasg orra. Ma ghnàthaichear bàtaichean, bu chòir doibh an tìr a thoirt a mach leis an ìasg co luath 'sa dl'fhéudas iad an déigh a thogail; agus cha bu chòir do'n ìasg a ghlacar air làithibh fa leth, a bhì air a chur feadh a chéile.

Tha e na nì cìnnteach gu'n dean atharrachadh gréidhidh air ìasg, atharrachadh mòr 'na luach anns a' mhàrgadh. Tha e soilleir, uime sin, gu'm bheil, cha'n e mhàin an t-èolas, ach mar an céudna an cleachdadh air an t-sèol gréidhidh a's fearr, 'nan nithibh ro chudthromach, an da chuid do'n luchd-gréidhidh fein, agus d'on dùthaich as am bheil an t-iasg 'ga chur a mach. Agus gu cìnnteach an uair a thuigear nach e barrachd cosdais,

but only a little additional attention, that is necessary to produce this superiority of excellence in the fish cured and that all the attention required, may be easily given in the course of the operations of bleeding, cleaning, and drying, by the fishermen or their families,—it may be hoped, that Curers or their Superintendents will, for their own sakes, see that every thing necessary be promptly and efficiently done, that may ensure a ready and profitable sale of their fish.

Perhaps the best process of cure is that practised in Yorkshire, where the object of the Curers is to produce the finest fish for the Spanish market. As this affords by far the highest price for fish, it ought to be the study, as it is obviously the interest of all fish-curers, to bring their article of commerce to such a degree of perfection as may make sure of this market. That this must be well worthy their best endeavours, is best proved by the fact that the Curers at Eyemouth, by entering into direct correspondence with some of the principal Spanish merchants in London, are now offered, for STAMPED COD what amounts to £3 a ton more than they got previously. Any Curer, in any quarter, may have an opportunity of opening up such a direct correspondence, by application to Mr. Campbell, the chief officer of the Board of British Fisheries in London, who will be happy to inform applicants of the names of the firms of the different Spanish houses ; but it must be observed, that no attempt to do so need be made unless the fish are of such quality as to merit the OFFICIAL STAMP, and that they shall have actually received it from the Fishery Officer of the district.

The moment a fish is taken off the hook it should be bled. This may be done by the person who is employed in taking it off the hook. The fish must then be headed split up, and gutted,—in doing which, the sound should

ach barrachd cùram a tha féumail chum an rogha gréidhidh so a thoirt do'n iasg, agus gu'm féud an cùram sin a bhi air a ghabhail leis na h-iasgairibh, no le'n teaghlaichibh 'n àm a bhi leigeadh na fola as, 'ga ghlanadh, agus 'ga thiomachadh, —féudar a bhi'n dòchas gu'm faic an luchd-gréidhidh, no iadsan os an ceann, air an son fein, gu'm bi gach ni freagarach air a dheanamh gu deas agus gu buileach, chum féill ealamh agus thàrbhach fhaotuinn d'an iasg.

Tha'n sèol gréidhidh a's fearr, féudaidh e bhi, air a chleachdadh ann an Siorramachd *York*, far am bheil an luchd-gréidhidh a' deanamh an dichill chum an t-iasg a dheasachadh air a mhodh a's fearr air son a' mhàrgaidh Spàinnich. Do bhrìgh gu'm faighear an lùach a's mò air son éisg anns a' mhàrgadh sin, bu chòir do'n luchd-gréidhidh, air son am buannachd fein, gach dìchioll 'nan comus a dheanamh, chum ruigeadh air an fheabhas gréidhidh sin, a ni cìnnteach iad air féill mhaith fhaotuinn d'an iasg anns an Spàinu. Chum a dhearbhadh gu'm bheil so airidh air an rogha cùram, tha'n luchd-gréidhidh aig *Eyemouth*, le bhi 'sgrìobhadh gu caol dìreach dh' ionnsuidh nam prìomh-cheannaichean Spàinneach ann an Lunainn, a' faotuinn mu thuairmeis trì puinnnd Shasunnach nì's àirde air an tunna do'n trosg air a chomharachadh, na fhuir iad riamh roimhe. Tha cothrom aig fear-gréidhidh ann an ceannadh sam bith, air sgrìobhadh air an dòigh chéudna, le a chomhairle a chur ri Mr. Caimbeul, prìomh oifigeach Bùird na h-Iasgaireachd Bhreatuinnich ann an Lunainn, duine a bhitheas ro dhèonach air ainmean gach Comuinn fa leth, anns na tighibh Spàinneach, innseadh dhoibhsan a dh' iarras sin air. Ach féudar a thoirt fanear, nach ruig neach sam bith a leas sin a dheanamh, aig nach 'eil iasg a bhios co math is gu'n toill e an comharadh dligeach, agus gus an cuirear an comharadh sin air an iasg, le oifigeach na h-iasgaireachd anns an àite.

Is còir an fhuil a leigeadh as an iasg air bàll an uair a bheirear de'n dubhan e. Féudar so a dheanamh leis an neach aig am bheil mar obair a bhi 'ga thoirt bhàrr an dubhain. An sin, féumar an ceann a thoirt de'n iasg, a sgoltadh suas, agus am mionach a thoirt as; ach 'n àm a bhi' deanamh sin, bu chòir cùram a ghabhail do'n mhealag-snàmhaidh

be carefully preserved for cure. The fish should then have the bone removed, care being taken that it shall be cut away to within twenty or twenty-two joints of the tail, not directly across, but by the splitter pointing the knife towards the tail, and cutting the bone through two joints at once, in a sloping direction, so as to leave the appearance of the figure 8. This looks best, and it has this advantage, that the fish are not mangled, as they are apt to be when the bone is cut square through one joint. A slight incision should be also made along all the adhering part of the bone, to allow any remaining blood to escape, and the splitter should then drop his fish into clean water. The fish should then be thoroughly washed in the sea from all impurities; but where this cannot so immediately be accomplished, they should be dropped instantly into a large tub or vat full of sea water, where they should be carefully washed, and the water should be poured out of it when it gets foul, and fresh water supplied. Care must be taken to remove the black skin that adheres to the laps of the fish.

If these operations cannot all be performed on board the fishing craft immediately after capture,—the fish, upon being taken off the hook and immediately bled, which is absolutely essential, should be put into boxes, or some convenience, to keep them from exposure to the air, and from being trampled on, which would be extremely hurtful to them. But it may be again repeated, that the more of the above operations that can be performed immediately after capture the better. If the salting can be done on board the craft, it will be of the greatest advantage, as the sooner the fish are in salt after they are taken out of their native element, the greater is the chance that their cure will be successful. But, whether cured at sea or on shore, they ought in no case to be permitted to re-

gus an saillear i. Is còir an sin, an cnàimh a thoirt as an iasg, agus aire a thoirt gu'n gearrar e mar fhichead alt, no dà alt thar fhichead o'n earbull. Cha'n fhéudar an cnàimh a ghearradh gu dìreach tarsuing, ach cumar an sgian sìos a réir an earbuill, agus gearrar an cnàimh air' fhíradh troimh dà alt comhladh, gus am bi cinn nan cnàmh air a chumadh so 8. Se so a's fearr a sheallas, agus tha' bhuanmachd so aige, nach béubanichear an t-iasg, mar a thachaireas gu h-ealamh an uair a ghearrar an cnàimh gu dìreach tarsuing troimh aon alt. Bu chòir, mar an céudna, gearradh beag a bhi air a dheanamh air fad na h-earrainn do'n chnàimh a dh' fhàgadh, chum cead ruith a thoirt do'n fhuil a dh' fhan anns an àite sin; agus air do so nìle a bhi deùnta, rachadh an t-iasg a thilgeadh ann an uisge glan. Bu chòir an sin, an t-iasg a dheagh nigheadh anns a' mhuir o gach uile shalachar; ach far nach gabh so deanamh air bàll, bu chòir a thilgeadh gu'n dàil ann am ballan mòr, no ann an dabhach làn sàil, agus a nigheadh an sin gu cùramach. Bu chòir an t-uisge a thaomadh a mach an uair a dh' fhàsas e salach, agus uisge ùr a chur 'na àite. Féumar ro aire a thoirt gu'n toirear air falbh an craicinn dubh a ta' leantuin ri blian an éisg.

Mar 'eil innleachd air na nithe so uile a dheanamh air an t-soitheach-iasgaich gu'n dàil an déigh do'n iasg a bhi air a ghlacadh, bu chòir cùram a ghabhail deth le 'chur ann an àite tearuinte. An uair a bheirear bhàrr an dubhain e, agus a leigear an fhuil as, nithe a dh' fhéumar air gach cor a dheanamh, bu chòir a chur ann am bocsaibh, no ann an àitibh freagarrach eile, chum nach millear e leis an àile, agus nach bruthar leis na cosaibh e. Ach cumar air chùimhne, mar a's mò a gheibh e do'n ghiullachd a dh' àinnicheadh, air bàll an déigh a ghlacaidh, gur ann a's fearr a bhios e. Tha e chum mòr bhùannachd an sailleadh a dheanamh air an t-soitheach, ma tha sin idir comusach; oir mar is luaithe a leagar anns an t-salann e, an déigh a thoirt as a' mhuir, 'sann is cinntich' a bhios a' chùis gu'm bi e air a dheagh ghréidheadh. Ach cia aca a ghréidhear air muir no air tìr e, cha bu chòir 'fhàgail, air chor sam bith,

main a longer period before being laid in salt than forty-eight hours.

Some Curers think, that instead of laying the fish in salt immediately after they are washed, they ought to be left to soak in water for twelve hours, or allowed to remain in a heap for the same period, before being salted. This has been done by many, under the impression that it will make the fish, when eured in pickle, appear thick and plump at market, and because the coating of slime found on the skin, when the fish come to be repacked or dried, thus becomes thicker and easier removed, than if the fish were salted from the washer's hand. But the fact is, that the swelling of the fish, and the thick coating of slime, indicate tainting, and it is therefore obvious that when fish remain without salt for twelve hours, the pickle will just so much the sooner become sour, so that the fish must be thereby injured. Herrings, though a richer fish than eod, are never soaked in water before salting, or allowed to remain for hours without salt after being gutted ; thereverse is the universal practice. In the same manner, therefore, the sooner that Cod, Ling, Tusk, or Hake, can be salted after being thoroughly washed, the better will the cure and the quality be, and the less salt will be required. The salting should always be carried on in vats, tubs, or troughs, which should have covers. But whether the fish are to be so eured, or by that very inferior mode called BULK, they must be regularly laid in layers on their backs, one over the other, each layer being carefully spread over with a sufficient quantity of salt, 45 or 50 pounds of Liverpool salt per hundred weight of dried fish being about sufficient. Where this quantity cannot be given, a day or two longer in salt may be required ; and if salted in bulk, they will certainly require to remain a few days longer. Over-salting is frequently practised

ni's faide na ochd agus dà fhichead uair gu'n a leagadh anns an t-salann.

Tha cuid do'n luchd-gréidhidh 'sa bharail, an àit an t-iasg a leagadh 'san t-salann gu'n dàil an uair a nighear e, gu'm bu chòir fhàgail a'm bogadh ann an uisge, rè dà uair dhéug a dh'ùine, no a thilgeadh rè na h-ùine sin ann an tòrr mu'n saillear e. Rinneadh so le mòran le bhì saoil sinn gu'n toir e air an iasg, an uair a ghréidhear ann am piceal e, sealltuinn tiugh agus taicil anns a' mhàrgadh. Tha iad so 'sa bharail, mar an céudna, gu'n toirear air falbh ronnan an éisg ni's usa air an dòigh so, do bhrìgh, an uair a nithear suas, agus a thiormaichear an t-iasg, an déigh na giullachd so fhaotuinn, gu'm bheil na ronnan a' fas tiugh air a' chraicinn, agus gu'm bheil iad mar sin ni's usa an glanadh dheth, no 'n uair a shaillear an t-iasg aig an àm anns an nighear e. Ach 'si 'chùis gu'm bheil atadh an éisg air an dòigh so, agus na ronnan a ta gu tiugh air a' chraicinn, a' nochdadh gu'm bheil an t-iasg a' brothadh: tha e uime sin soilleir, an uair a dh'fhàgar e gu'n sailleadh, rè dà uair dhéug a dh'ùine gu'm bheil am piceal mar sin, a' fàs ni's luaithe goirt, air chor is nach urrainn gu'n chron a bhì air a dheanamh do'n iasg. Ged is mèith an t-iasg an sgadan seach an trosg, gidheadh, cha'n fhàgar am bogadh ann an uisge e mu'n saillear e; ni mò a chleudichear da a bhì uairean dh'ùine gu'n salann, an déigh am mionach a thoirt as; ach tha a ghiullachd calg-dhìreach an aghaidh sin. Air an dòigh chéudna, uime sin, mar a's luaithe a shaillear an trosg, an langa, an traille, agus am falmair, an déigh dhoibh a bhì gu buileach air an rìghtheadh, is ann a's fearr a bhios an gréidheadh, agus an t-iasg fein, agus is ann a's lugha a dh'fhéumar do'n t-salann. Bu chòir an sailleadh a bhì 'n còmhnuidh air a dheanamh ann an dabhachaibh, no ann am ballanaibh mòra, le còmbdachaibh freagarrach. Ach co dhìubh a shaillear an t-iasg air an dòigh so, no a shaillear ann an tòrr e, dòigh nach 'eil idir co ìomchuidh, féumar a chur gu riaghailteach air muin a chéile 'na shreathaibh, leis an drùm an ìochdar, agus an t-aon dìreach os ceann, n aoin eile. Féumar an sin, gu leòir do shalann a chrathadh air gach sreath. Tha dà fhichead agus cuig, no leth-chéud punnd do shalann *Liverpool*, ni's leòir chum céud punnd cudthroim éisg tiormaichte a shailleadh. Far nach 'eil e deiseil uircad so do'n t-salann a bhuilcachadh, feudaidh e bhì gu'm féum an t-iasg a bhì air fhàgail là no dhà ni's faide 's an t-salann; ach féumar fhàgail mar sin gu'n teagamh mu shaillear ann an tòrr e. Tha barrachd saillidh gu minic air a chleachdadh

to increase the weight of fish, but nothing is more fallacious,—not only is the sap thus extracted, and the fish made lighter, but, as the drying advances, they become encrusted with salt, which falls off at every handling, whilst the fish are so much deteriorated, as to be rejected as salt-burned, or taken at a very reduced price. In Yorkshire, where the mode of cure is such as to produce the most perfect article, the whole of the fish are salted in tubs or vats, three days being generally allowed them to remain in salt, and one ton of salt is allowed to cure three tons of fish,—but if the fish are large, more salt will be required than if they are smaller. This is a difficult matter to manage where the climate is damp, for if the season happens to be wet, and the fish do not receive a sufficient quantity of salt, they will soon get mited. The knowledge of their having taken in a sufficient quantity of salt, so as to be enough cured in that respect, whether they are yet too soft, must be obtained by the grip of the hand of an experienced Curer, before they are taken out of the pickle. If the fish be salted when fresh off the hook, they will take in no more salt than will perfectly enre them, however much may be given them; but if they are not fresh, by giving them too much salt they will get salt-burned.

After the fish are drawn from the vats, they should be well washed, and the pickle brushed out in the sea, or in sea water, and then they must be built up in a long pile on a stony beach, taking care that each fish is placed in a sloping direction, that is to say, with its head higher than its tail, so as to allow the salt water to be well dripped out of them. They may remain in this state for a day or two before they are laid out for the purpose of drying.

By far the best mode of drying the fish is that prac-

elium cudthrom an éisg a mhèudachadh ; ach cha'n 'eil ni sam bith ni's mealltaich' na sin. Tha sin, cha'n e mhàin a' toirt a' bhùigh as an iasg, ach tha e 'ga fhàgail ni's éutruime. 'Nàin do'n iasg a bhì 'tiormachadh, tha brat salainn a' fàs air ùachdar, a thuiteas detli gach uair a làinhsichear e, agus le so, tha'n t-iasg fein air a thruilleadh co mòr, is gu'n diultar e mar iasg air a losgadh le salann, agus mu ghabhar idir e, nithear sin aig luach ro bheag. Ann an siorramachd *York*, far am bheil an sèol gréidhidh a's fearr air a chleachdadh, tha'n t-iasg gu léir air a shailleadh ann am ballanaibh, no ann an dabhachaibh. Fàgar, mar a's trice, trì làithean anns an t-salann e ; agus tha aon tunna salainn air a shonrachadh, chum trì tunnaichean éisg a ghréidheadh,—ach ma bhitheas an t-iasg mòr, féumaidh e barrachd salainn na dh'fhéumas an t-iasg beag. Is gnothuch so, gidheadh, nach 'eil idir soirbh ann an dùthaich far am bheil an aimsir mar a's trice fiuch, agus an àile àitidh ; oir mar gabh an t-iasg do thaobh an ni sin, ris an t-salann mar bu chòir da a dheanamh, malcar e, ann an ùine ghoirid. Far am bheil fear-gréidhidh fiosrach, aithnichidh e le gréim a làinli, mu'n toirear an t-iasg idir as a' pliceal, co dhiùbh a ghabh e ri salann gu leòir no nach do ghabh ; ach cha'n fhaighear eòlas chum sin a dheanamh ach a mhàin trid cleachdaidh. Ma shaillear an t-iasg an uair a bhios e ùr bhàrr an dubhain, cha ghabh e do'n t-salann ach na dh'fhéumas e, air a mhèud is gu'n toirear dha ; ach mar bi e ùr, tha am barrachd salainn 'ga losgadh.

Air do'n iasg a bhì air a thoirt as na dabhachaibh, no as na ballanaibh, bu chòir a dheagh nigheadh, agus am piceal fhàsgadh as anns a' mhuir, no ann an sàl. An sin togar suas e 'na chruaich fhada air mol a' chladaich, a' toirt aire gu'n càraichear gach iasg le leathad, 'se sin, le 'cheann ni's àirde na 'earbull, chum cead a thoirt do'n t-sàl sìleadh gu buileach a mach as. Féudar fhàgail air an dòigh so là na dhà, mu'n sgaoilear a mach e air son tiormachaidh.

Is e an dòigh a's fearr gu mòr chum an t-iasg a thiormachadh an dòigh a ta 'ga ghuàthachadh

tised in Yorkshire, and all Fish Curers are earnestly recommended to adopt it, as nothing will so certainly tend to ensure their fish taking in the Spanish market, which will amply repay them for any trifling additional expense to which they may be put at first by making proper provision for it. The Yorkshire Curers use flakes of wood, raised on posts three feet high, of such length as may be found most convenient, and about four feet wide. These are constructed at top with a platform of cross bars, placed six inches assunder, on which the fish are to be laid. The greatest possible advantage is derived from these flakes, and it is the earnest desire of the Board of Fisheries to see them brought into universal use among Fish Curers, as they are far superior to any stony beach whatsoever, howsoever favourable for the purpose. The great advantage of the flake is, that it preserves the fish clean, and owing to the current of air passing underneath, the drying process goes on simultaneously below as well as above ; and it prevents all chance of the fish being sunburnt, blistered, or scalded, when first laid out, as frequently happens when they are placed on a hot stony beach in a warm day. But when a stony beach is to be used, the greatest care should be taken not to lay the fish down when the stones are too warm from the heat of the sun, otherwise they will certainly get sunburned, and no subsequent care will be successful in curing them properly. In all cases, whether the flake or the beach be used, great care must be taken not to expose the fish to a powerful sun for the first few days, and that they be not dried too hastily, otherwise they will heat, become brittle, and loose from the skin, and appear as half roasted, and so be unsaleable. At first they should be laid on their backs ; but towards night they should be laid back upwards, in small heaps or

ann an Siorramachd *York*. Tha gach uile luchd-gréidhidh éisg gu dùrachdach air an combhairleachadh an seòl tiormachaidh so a chleachdadh, do bhrìgh nach 'eil seòl sam bith eile a nì co cinn-teach iad air reiceadh math fhèotuinn d'an iasg anns a' mhàrgadh Spàinneach. Ath-dhiòlaidh an seòl so, ann an ùine ghoirid an neoni cosdais a nithear an toiseach chum uigheamachadh gu freagarrach air a shon. Tha luchd-gréidhidh Siorramachd *York* a' gnàthachadh bhearta-tiormachaidh, a ta air an deanamh le spealtaibh fiodha air an togail air puist trì troidhean air àirde. Tha na spealta sin air an deanamh ann am fad iomchuidh, a réir mar a bhios féum orra, agus ma thuairmeis cheithir troidhean air lèud. Tha na bearta-tiormachaidh còmhnard air am mullach, le rongaibh-tarsuing sea òirlich o cléile, air an cuirear an t-iasg 'na luidhe. Tha 'bhuanachd a's mò a' sruthadh o na beartaibh-tiormachaidh sin; agus 'si mòr-dhùrachd Bùird na h-Iasgair-eachd, gu'm biodh iad gu coitchionn air an cleachdadh leis an luchd-gréidhidh anns gach àite, do bhrìgh gu'm bheil iad gu mòr nì's fearr air son tiormachaidh na mol cladaich sam bith air 'fheabhas. 'Si buannachd a's mò nam beart-tiormachaidh, gu'n cùm iad an t-iasg glan, agus do bhrìgh gu'm faigh a' ghaoth a stigh fodhpa, tha'n tiormachadh a' dol air adhairt gu h-ìosal agus gu h-àrd aig an aon àm. Mar sin, cha bhi cunnart gu'm bi an t-iasg air a sgàlltadh, air a bhòchdadh, no air a losgadh leis a' ghréin, an uair a sgaoilear a mach an toiseach e; nì a thachaireas gu tric an uair a chuirear air mol teth cladaich e, air latha blàth. Ach an uair nach 'eil a chaochladh air mol cladaich ann, bu chòir a bhi ro chùramach gu'n an t-iasg a sgaoileadh, an uair a bhios na clachan tuilleadh 's teth le neart na gréine, air neo loisgear e gu'n teagamh, agus cha'n 'eil innleachd an déigh sin air a leasachadh gu ceart. Ach co dhiubh a chleachdar a' bheart-tiormachaidh no'n cladach, is còir a bhi do ghnàth ro chùramach, nach sgaoilear an t-iasg a mach, rè là no dha an toiseach, ri diàn-theas na gréine. Féumar a bhi faiceallach mar an céudna, nach tiormaichear e tuilleadh's cablagach, air neo gabhaidh e teas, fasaidd e brisg, caillidh e an craicionn, bitlidh e mar iasg leth-ròiste, agus cha'n fhaighear reiceadh dha. An toiseach, bu chòir a leagadh air a dhrùim, ach mu bhéul an fheasgair, bu chòir a dhrùim a chur an ùachdar, ann an dùintibh,

clamps, which ought to be increased in size as the fish get harder ; and, during the process of drying, the fish may be laid with their back or belly upwards alternately, as occasion may point out. As they acquire firmness, frequent turning is advantageous, and as the heaps become enlarged stones or weights may be placed on them to facilitate pressing, which imparts to them a smooth and compact surface. When the fish are about half dried, or so, it will then be easy to tell whether they have got too much salt, and if so, the skin side should be laid up to the sun during the heat of the day for future drying, which will draw the salt from the surface of the fish side, and tend to make them appear of a fine greenish colour. When the fish are gathered together in heaps in the evening, they should be carefully covered with matting or canvass during the night, as well as when damp weather prevents their being laid out. After a fortnight's drying, the fish should be put into a pack, or steeple, for the purpose of sweating, and they ought to be allowed to remain in that state for twelve days, carefully covered, after which they should be laid out to dry for a week ; and then after sweating them a second time for four or six days, two or three more days of drying should be sufficient to complete them. But of course this must all depend on the state of the weather ; and, according as that may be favourable or otherwise, the whole time employed in curing them may average from six to eight weeks. The pining and sweating of the fish is a most important part of the cure, and must be extremely well attended to, for if not properly sweated, before they are housed, they will soon get mited, slimed, discoloured, and unsaleable. Fish prepared for the Spanish market require to be highly salted, quite transparent, and of a pure greenish colour, and very hard dried. After the fish are properly sweated

no ann an torraibh beaga, a mhèudaichear a lion cuid is cuid, mar a dh'fhàsas an t-iasg cruaidh. 'Nàm an tiormachaidh fèudar a chur air a dhruim agus air a bhroinn mu'n seach. dìreach mar a fhreagras a' chùis. An uair a bhios e 'fas daingeann, is feairrd e a charuchadh gu tric, agus an uair a bhios na torran a' fàs mòr, féudar clachan, no cudthroman a chur orra chum an teannachadh, agus chum an t-iasg a dheanamh réidh agus còmhnard air an taobh a muigh. An uair a gheibh e mu leth tiormachaidh, is furasd innseadh an sin, ma fhuair e tuilleadh 'sa chòir do shalann, agus ma fhuair, bu chòir taobh a' chraicinn a chur an uachdar ris a' ghréin, rè teas an latha, gus am faigh e an t-iomlan tiormachaidh. Air an dòigh so, tarruingear an salann air falbh 'on taobh eile, agus fàsaidh dreach ro thaitneach uaine air an iasg. An uair a nithear torran air an iasg, ma bhéul an anamoich, bu chòir an còmhdachadh gu cùramach rè na h-òidheche le brataibh-luachrach, no le éudaichibh-cainbe, agus mar an céudna, an uair nach gabh an t-iasg sgaoileadh a mach le aimsir fhliuch. An déigh ceithir là déug tiormachaidh, bu chòir an t-iasg a dheanamh suas ann an dùn, no ann an tòrr mòr, chum fallus a chur deth, agus bu chòir fhàgail anns an staid sin rè dà là dhéug, air a còmhdachadh gu cùramach; agus an déigh sin, seachduin tiormachaidh fhaotuin. A ris, an déigh fallus a chur deth an dara uair, rè cheithir no shea laithean, bu chòir do dhà no thri làithean eile tiormachaidh a bhì ni's leoir chum crìoch a chur air a' ghréidheadh. Ach do thaobh nan nithe so uile, tha mòran aig an aimsir ri dheanamh; agus a réir mar a bhitheas an aimsir freagarrach no nach bì, gabhar am bichiontas eadar sea agus oich seachduinean, chum gach ni a bhuineas do'n ghréidheadh a chrìochnachadh.

Tha'n sèol air an caoinichear an t-iasg agus air an cuirear fallus deth, 'na earrann ro chudthromach do'n ghréidheadh, d'am féum aire ro shònraichte a thabhairt, oir mar cuirear fallus deth gu ceart, mu'n cuirear chum an tigh-thasgaidh e, fàsaidh e gu h-ealamh breòite, ronnach, neo-dhreachail, agus neo-fhreagarrach air son a' mhàrgaidh. Féumaidh an t-iasg a dheasuichear air son a' mhàrgaidh Spàinnich a bhì gu h-éutrom air a shailleadh, gu buileach soilleir, gu fìorghlan uaine ann an dath, agus gu ro chruaidh air a thiomachadh. An uair a chuirear fallus deth air shèol iomchuidh,

pined, and finished, they should be housed, but never in a warm day, or warm from the beach or flakes ; they should always be collected in a cool state—either in the evening or morning,—and with this precaution, and always provided that they have been properly pined and sweated, they will keep for a long time without being slimed or mited, care being taken to have the air excluded from them by proper covers, and by their being put into a tight cellar or warehouse. Many of the Yorkshire curers, when packing their fish in their stores, after being fully dried, lay a small quantity of clean straw between each layer of fish. This tends to draw the surplus salt from the surface of the fish, prevents them from getting slimy or mited, and very much improves their colour.

When fish caught in winter are to remain in salt until the drying season arrives, a little additional salt is necessary, and if laid in bulk, they should be carefully covered with matting or canvass to ensure cleanliness, and to prevent them from getting discoloured.

When the fish are to be cured in pickle, they may remain the same time salted in vats, before being repacked into barrels. On removal they should be carefully scrubbed and washed with clean water, and the slime well scraped off with a knife from the skin and back fins. The fish may be then repacked in barrels, with clean salt, and prepared for market. The number of fish in each barrel should be scratched on the side of it. For curing and repacking for the home market, 84 lbs. of salt per barrel is sufficient, but 112 lbs. will be required for fish intended for exportation.

By order of the Honourable the Commissioners,
THOMAS DICK LAUDER,

Secretary to the Board of British Fisheries.

ROYAL INSTITUTION,
26th June, 1845.

agus an uair a bhithas e caoin, agus crìochnaichte ann an gréidheadh, bu chòir a chur chum an tigh-tasgaidh. Cha'n 'eil e freagarrach sin a dheanamh, gidheadh, air là blàth, no 'n uair a bhios an t-iasg teth bhàrr a' chladaich, no na beairt-tiormachaidh; ach bu chòir a chur do'n tigh ann an staid fhionnair, an dara cuid 'san fheasgar no 'sa mhaduinn. Ma bhithhear cùramach air an dòigh so, agus ma ghiullaichear an t-iasg air gach sèol a dh'ainmicheadh, gléidhidh e rè ùine fhada gu'n mhilleadh, agus gu'n truailleadh; ach féumar an ro aire a thoirt gu'n cumar an àile uaith le còmhdachadh iomchuidh, agus gu'n cuirear e ann an tigh-tasgaidh dìonach agus dùinte. Tha mòran do'n luchd-gréidhidh ann an Siorramachd *York*, 'nàm doibh a bhì 'deanamh suas an éisg chaoinichte 'nan tighibh-tasgaidh, a' cur bad beag fodair glan eadar gach sreath do'n iasg. Le sin a dheanamh, tha'n còrr salainn air a tharruing air falbh o'n iasg o'n leth a muigh, agus a thuilleadh air deagh dhreach a chur air, cumar e gu'n mhalcadh, gu'n bhreotha, agus gu'n mhilleadh rè ùine fhada.

An uair a ghléidhear ann an salann iasg a ghlacar anns a' gheamhradh, gus an tig tiormachd na bliadhna a stigh, féumaidh e beagan a bharrachd salainn; ach ma ghléidhear ann an tòrr e, is còir a chòmhdachadh gu cùramach le brataibh-luachrach, no le éudachaibh-cainbe, 'ga chumail glan, agus chum nach càill e a dhreach.

An uair a tha'n t-iasg gu bhì air a ghréidheadh ann am piceal, féudar 'fhàgail air a shailleadh ann an dabhachaibh, gus an deanar suas a ris ann am barailibh e. 'Nàm a bhì 'ga ghluasad, bu chòir a dheagh ghlanadh, agus a nigheadh le h-uisge glan, agus na ronnan a sgrìobadh gu buileach leis an sgian bhàrr a' chraicinn agus nan itibh-droma. Féudar an sin, an t-iasg a dheanamh suas a ris ann am barailibh, agus a dheasachadh air son a' mhàrgaidh. Bu chòir àireamh an éisg anns gach barail fa leth a chomharrachadh air an taobh a muigh dheth. Tha ceithir fichead is ceithir puinnnd salainn nì's leòir chum gach barail a ghréidheadh, agus a dheanamh suas air son a mhàrgaidh aig an tigh; ach féumaidh e céud puinnnd cudthroim salainn, ma chuirear a maeh as an rìoghachd e.

Air ìarrtas na Cuideachd Urramaich.
TOMAS DIC LAUDER,

Rùn-chléireach Bùird na h-Iasgaireachd Bhrcatuinnich.

AN TIGH-SUIDHEACHADH RÌOGHAIL.
Gmh Mios meadhoin an t-Sàmhraidh, 1845.

DIRECTIONS

FOR

CURING COD, LING, TUSK, AND HAKE, WET, OR IN PICKLE.

THIS is a mode of curing which produces a valuable article of merchandize—very useful in household economy, and its wider extension becomes a most desirable object in promoting the interests of the British Fisheries. The most approved mode of conducting this description of cure is as follows :—

The fish having been properly split, scrubbed, and washed, should be salted in large tubs, or square boxes, capable of retaining the pickle, and properly covered from the sun and rain. After being forty-eight hours in salt, they may be washed in clean fresh water, and the skin of each fish must be well scrubbed with a small heather scrubber, or a hand brush, which is sometimes used for the purpose. Having been perfectly cleared of slime, and well rinsed in cold fresh water, they are laid in a heap and allowed to drip, and are then repacked into barrels with clean salt. In performing this process, the skin side of the fish is kept next to the bottom of the barrel, and they are regularly packed up with a proper quantity of salt on each layer, keeping them as flat as possible, and close to the sides of the barrel. The fish should be collected, and assorted into three or four sizes, and each size should be packed in different barrels.

*An sèol air an còir an Trosq, an Langa, an
Traille, agus am Falmair a Ghréidheadh,
Fliuch, no ann am Piceal.*

Is sèol gréidhidh so, trid an deanar an t-iasg 'na bhathar ro luàchmhor air son dhùchannan eile, agus trid an deasuichear e, chum féum mòr a dheanamh dheth aig an tigh. 'Nan rachadh an sèol gréidhidh so a chleachdadh nìs farsuinge, bhiodh e 'na chuspair ro ion-mhiannaichte chum leas na h-Iasgaireachd Bhreatuinnich a mhèudachadh. Tha'n dòigh a's fearr chum an sèol gréidhidh so a ghiùlan air aghaidh, mar a leanas :

Air do'n iasg a bhi gu freagarrach air a sgoltadh, air a ghlanadh, agus a nigheadh, bu chòir an sin, a shailleadh ann am ballanaibh mòra, no ann am boesaibh ceithir-chearnach, air an deanamh dìonach chum am piceal a chumail, agus gu cùramach air an còmhdachadh o'n ghréin agus o'n uisge. Air dhà a bhi dà fhichead uair 'sa h-ochd ann an salann, féudar an sin a nigheadh ann an uisge glan ùr ; agus féumaidh craicionn gach éisg a bhi gu math air a sgùradh le sguail bhig fhraoich, no le bruis-làimhe, mar a ta cuid a' cleachdadh. An uair a ghlanar na ronnan gu buileach air falbh, agus a shruthailear e gu maith ann an uisge fuar ùr, tha e air a dheanamh suas 'na thòrr, chum cead silidh a thoirt da, agus an sin air a leagadh ann am baraillibh, le salann glan. Ann an deanamh so, cumar taobh a' chraicinn do'n iasg ri ìochdar a' bharaille, agus mar sin lìonar suas e, a' cur iomchuidh-cachd salainn eadar gach breath do'n iasg, agus 'ga chumail co còmhnard 'sa dh' fhéudar, agus co dlùth 'sa ghabhas e càradh ri clàraibh a bharaille. Tha e iomchuidh an t-iasg a chruinneachadh agus a shèorsachadh 'na thri, no na cheithir earrannaibh, a réir a mhèud ; agus bu chòir gach earrann a bhi air a shailleadh ann am baraillibh air leth.

If the fish have been firmly packed, and the barrels allowed to stand on end one night properly covered before being tightened, it will not be necessary to jump upon them. The uppermost or top fish in the barrel is then placed with the skin upwards, and salt is strewed on it. The barrels must then be flagged and tightened, —laid down—tiered—bored on the side—and filled up with pickle, which should always be made from clean salt, and it should be skimmed when necessary, as any impurity in the pickle injures the whiteness of the fish.

The number and kind of fish contained in each barrel must then be scratched on the side, with the date of re-packing, and if the casks and fish are found on inspection to be in all respects agreeable to law, and to the Board's regulations, the barrels may then be officially branded.

By Order of the Honourable the Commissioners.

THOS. DICK LAUDER,
Secretary Board of Fisheries.

ROYAL INSTITUTION,
26th June, 1845.

Ma chuireadh an t-iasg gu daingean anns na barailibh, agus ma dh' fhàgadh iad sin rè oidhche air an cìnn, agus air an còmhduchadh gu freagarrach mu'n do theannaicheadh iad, an sin, cha bhi féum sam bith air léumadh orra leis na cosaibh. Tha'n t-iasg a's àirde, no'n t-iasg ùachdarach anns a' bharaille, an sin, air a chàradh leis a' chraicinn an ùachdar, agus tha salann air a sgaoileadh thairis air. Féumar an sin na baraillean a dhùnadh, a theannachadh, a leagadh sìos, a chur 'nan sreathaibh, a tholladh air an taobh, agus a lionadh suas le piceal. Bu chòir am piceal a bhi an còmhuidh air a dheanamh le salann glan; agus an uair a bhios féum air, bu chòir am bàrr a thoirt dheth, do bhrìgh gu'm mill salachar sam bith anns a' phiceal gilead an éisg.

Féumar an sin, àireamh agus gnè an éisg anns gach barail fa leth, a bhi air an sgrìobhadh air taobh a' bharaille, agus mar an céudna, an là de'n mhios air an do lionadh e mu dheireadh. Ma gheibhear le géur-amharc gu'm bi na clàran agus an t-iasg air gach dòigh a réir an lagha, agus a réir riaghailtean a' Bhùird, féudar an sin na baraillean a chomharachadh le iaruin Oifigich na h-Iasgairachd.

Air iàrrtas na Cuideachd Urramaich.
TOMAS DIC LAUDER.

Rùn-chléireach Bùird na h-Iasgairachd Bhreatainnich.

AN TIGH-SUIDHRACHADE RIÒGHAIL.

26mh Mios meadhoin an t-Sàmhraidh, 1845.

