4.—Directions for preparing and using the flour or secula of the Potato for Brewing.

Almost every family in country situations is acquainted with the method of making starch from potatos. It is this principle, as already stated, which forms the basis of every variety of beer, and which is easily converted into a saccharine substance. Now, although there are many methods proposed to grind the potatos into pulp, for manufactories in a large way, still, as our present motive is to teach agricultural families and others, how to apply the potato to a new use, and thereby to employ the children of the poor within doors during the winter months, in the simplest possible manner, we shall at present confine ourselves within these limits.

The only machine required in the method now proposed, for preparing the flour of potatos, is for the purpose of washing them, as the usual mode of doing it by a broom is tedious. In Fig. 4, A is the trough containing water, B a cylinder revolving in it by the handle C. This
cylinder is made like a cage, with strips of wood, leaving intervals of about three quarters of an inch, to prevent the potatoes from escaping, whilst a free access is allowed with the water, which fills it to about one third of its diameter. Potatoes are to be put into it, in any quantity not exceeding half its content, and the handle turned, keeping it revolving until the potatoes are quite clean, when the handle C is moved in the curve c, which turns the cylinder out of the trough, and by resting its handle on the support S, the potatoes are discharged out of it by a door made in any part of the circumference: e is a moveable joint, which turns with the cylinder out of the trough, but still retains the other end of the axis.

The difficulty of finding employment suitable for children of all ages, not only in parish workhouses, but in all places, whether town or village, is confessedly very great; and although part of their time ought to be employed in receiving some sort of education, still, as this is very much neglected, even where there are public schools, and notwithstanding every exertion that can be made, a great part
of the time of a labourer’s family will be wasted during the winter months; we are very desirous to make this time available for giving the children habits of industry, whilst they are adding a trifle to their parents’ weekly wages; and, for this purpose, the potato offers resources to young and old, male and female, of almost every age beyond infancy. But, to take advantage of this offer, some previous attention to the subject will be required by the clergy, churchwardens, overseers, and influential gentlemen in all places, merely to set the machine in motion, which will then proceed of its own accord, and sweet will be the feelings of those who may have thus lent a helping hand to teach their poorer neighbours that the spare time of all their families may most easily be converted to some profit, as the truest charity is that which enables the poor to be independent of it. Amongst agricultural labourers the manufacture of the fecula of the potato is pretty generally known, nor will they require to be supplied with the raw material,—all they want is an immediate market for the produce; this (until the article becomes in general use, which in all probability
would soon be the case,) ought to be afforded them, at first, by the overseers purchasing it at a price at which they may just reimburse themselves by the sale of the flour, or fecula, to bakers, or for the purpose of domestic brewing, in the manner to be pointed out; as both these channels of disposing of it will soon be opened, after the first few trials.

For workhouses in towns and villages, a stock of potatoes ought to be laid in at the time of harvesting them, and manufactured into flour during the winter, by the inmates, under the superintendence of the master or mistress. In a national view, this manufacture would, if generally introduced, produce important benefits; and we trust that we have been sufficiently explicit to shew the probability of it, in having said so much on the cultivation of the potato, and pointed out the cause of its limited growth being the want of a market, and also a method, now submitted to the public, to secure its most valuable part from any future change, however long it might be kept.

To proceed—After the washing, the next operation is the reduction of the clean
unpared potatoes to a pulp, by furnishing children with a common tin grater for the purpose, and the quantity which can be thus prepared in a day, by each child, is much greater than may at first be expected. The potato flour, intermixed with the pulp, is thus secure from every change, at all seasons of the year, as it is now completely indestructible—the vegetable principle of the potato being destroyed; and if the pulp become putrid, rots, or in any respect decomposes, the starchy matter, or secula, is incapable of change, and may at any time be separated and purified by the following operation, which however is intended to take place as soon as the pulp is ready.

Fill a tub or trough nearly full of water, and put a hair sieve therein, with its bottom about four or five inches below the surface of the water; that is, the sieve must be filled to that depth with water, and it must rest on two parallel pieces of wood, fixed across the tub or trough, to support it in the water at the depth mentioned. Now put the pulp into the sieve, until it rises to the surface of the water therein, and stir it about, frequently lifting the
sieve above the surface of the water to drain, and then immersing it again as low as the supports will admit, and stirring about the pulp in it by the hands, or by a piece of flat board; after repeating this operation five or six times, the whole of the flour will be washed out, and fall to the bottom of the tub or trough, which should be rather deep, that the agitation of the surface of the water may have no effect in stirring up the fecula, or starchy matter at the bottom; and it should have a hole in the side, at the surface of the water, always kept open, to let off the quantity which will accumulate, into another tub, so as to keep the first always at the same level.

The pulp now in the sieve must be emptied out, and reserved for feeding pigs, horses, or any sort of cattle—if for the former, it should be mixed up with boiling water, and given to them when sufficiently cold.

After continuing this operation until the trough or tub is half full of the potato flour, the water therein will have assumed a red colour; this must be drained off when the fecula shall have completely sub-
sided, and left it clear; and the secula must then be mixed up with a tub full of fresh water, by stirring it up well with a spade or shovel, for it will lay so dead and heavy at the bottom, that scarcely any thing but an iron tool will have any effect upon it. After allowing it to subside, the water must again be drained off; and if the flour is required to be particularly white this washing operation must be repeated, otherwise it is in this state immediately fit for use in brewing; but if for keeping, or conveyance to any distance, it must be dried, and the following is proposed as one of the best methods of doing it. Let the wet flour be put into small thin bags of any sort, so as to fill them not above half or three quarters; then the mouths must be tied, and the bags suspended around the large fire-places generally found in cottages, and occasionally have their contents shaken, so as to bring the internal parts of the flour towards the sides of the bags, thereby exposing fresh surfaces to the heat. This mode prevents dust and dirt of all kinds from mixing with the flour, and dries it very gradually, which must always be done at a low degree of heat. A baker's oven,
after the bread is taken out, will generally dry a quantity of the flour effectually during the night, and for this purpose the door should be left open, but in no case should the drying heat exceed 130° at first, but it may be gradually augmented to even 230°, or more.

For using this potato flour in brewing, take of

Malt  1 bushel,
Barley 1 bushel,
* Wet Potato Flour 36 pounds,
  Hops 2½ pounds,
  Water for first mash 30 gallons.

Previous to commencing the brewing operations, let the above quantity of wet potato flour be mixed with the barley by hand, as intimately as possible; then put the water into the mash-tub, and when it has been reduced to 180° of heat, (for as

* Or just in the state in which the water has spontaneously drained from it as much as possible; and if the flour be dry, 24 pounds of it should be previously wetted, and properly mixed with cold water, until it is of one uniform consistence, without knobs or balls, which will then be equivalent to the above quantity of wet.
already stated, the water should always be lowered to the proper temperature in the mash-tub; add the malt, and stir it well in the manner before directed. When sufficiently broken and saturated, add the mixture of barley and potato flour, and continue the mashing precisely as directed in the last section; the mash must remain as long, and all the subsequent operations be performed in the same manner, without any variation, except in as far as quantity is concerned, the present being reduced to give the operator an opportunity of learning the manipulation, before he ventures upon a larger, which must be founded on the same proportions.

Whilst the last boiling, in any of the foregoing operations, is going forward, get all the grains out of the mash-tub, and tread them hard into any kind of vessel; clean the tub, and it is then ready to receive the wort for mixing the yeast or barm with it.

This last boiling must of course be strained from the hops, into the cooling vessels, after it has boiled for the time directed, and the hops sprinkled with water in the manner already explained.
5.—Fermentation.

This has already been stated to be by far the most important part of the process of brewing; that is to say, that however well all the previous operations may have been conducted, the effect of them may be neutralized by the injudicious management of the fermentation, and it cannot be accurately commenced without the assistance of the thermometer; but we must here notice, that all expressions in common language, with respect to the state of beer when supposed to be fit for use, are most vague and indefinite, without the aid of the saccharometer, which will speak a plain and explicit language. Although therefore we cannot but recommend its use, and bear witness to its great utility, yet we almost despair of success in introducing it generally, until the pertinacity of the great bulk of mankind, in rejecting the assistance of every thing designated by the formidable word scientific, has been conquered; which we trust the Society for the Diffusion of Useful Knowledge will in some degree accomplish. Those instru-
ments, which we wish to recommend, are so extremely simple in their use, that even a school boy may in ten minutes learn it; the misfortune, therefore, of merely conveying an air of science with them ought not to be sufficient for their condemnation. We will however boldly affirm, that the art of conducting the fermentation of any liquid, will make no great step towards perfection until they become general, even in private hands; and such conviction will, we hope, plead our apology for saying so much on the subject, there being no vinous liquor, prepared in this country, in which the fermentation can be permitted to go its extreme length, as in wines from grapes, without deteriorating the quality of it. There is always in beer, cider, British wines, &c. a certain degree, beyond which the fermentation must not be allowed to proceed, in order to produce the liquid in its greatest perfection, and this degree, when once ascertained, the saccharometer will register.

The mash-tub, as now prepared, is to receive the wort of the first boiling, or strong beer; and another tub should be got ready for the table-beer.
The wort, during the summer months, may be put into each, at the lowest heat obtainable in the space of six hours, as it should not be kept longer in the coolers; in October and March at about 70°, (supposing the fermenting tubs, each not exceeding 100 gallons) and, during a frost, even at 80°; with a pint of good or thick, and a quart of light or thin yeast, per hogshead; but it must be observed that the yeast should be previously mixed with a gallon or two of the wort, at a much higher heat, (say about 100°) especially in the winter season; and that after the whole of the wort and yeast is put together in the tub, it should then not be lower than the heats mentioned. A sufficient space should be allowed in the tub for the head to rise, without running over.

The wort must remain in these tubs for two or three days, according to the season of the year, until a decided yeasty head be formed; or until it be reduced by the fermentation not lower than to one-half of its original specific gravity; the beer should then be drawn off, as fine as possible, into casks, without moving the head, which will be left behind to be mixed up with the
bottoms or lees; as both, whilst fresh, form good yeast. The casks must be occasionally filled up with the same beer, and when the working is finished, which in this mode of fermenting will be but little in the casks, they should be bunged up close, and a small hole be bored, at the side of the bung-hole, to prevent accidents, until the cask of beer becomes fine and fit for tapping, when the hole may be quite closed with a peg.

A different mode of fermenting is pursued in the government victualling offices, which we consider very far superior to the above, (for all wort not exceeding the specific gravity of 1060;) or to any plan hitherto adopted by private or public brewers, where expedition is not required; as the fermentation is thereby checked, and the beer the more readily becomes fine. The wort is merely fermented in the coolers, and when sufficiently fine, which is the case in winter (their only brewing season) in a few days, it is then drawn off directly into the casks, bunged up immediately, and sent on shipboard. The advantage of this mode of checking the too great progress of the fermentation, would be particularly felt in the
summer; but, in that case it is necessary to cover the coolers closely over, to prevent the access of the warm air of the atmosphere, which has no injurious effect below a certain temperature. This covering would, however, be attended with much trouble and expense, and therefore a series of coolers, or rather shallow vessels, one over the other, so that the bottom of every one may form the cover of that immediately under it, might, with advantage, be substituted.

Fig. 5, is a plan proposed for this purpose, consisting of a cistern or case, about eight feet high and five feet square, divided into compartments of eight inches deep. A is the pipe for charging all the chambers with the fermenting wort, and B a shoot or trunk communicating, with small holes in the upper part of each of them through which the yeast will be discharged into the superior open receptacle C of the fermenting case: c is a cock for drawing off the beer which subsides from the yeast, and which is put into the funnel d as fast as it forms, and allowed again to run into the different chambers by opening all the cocks, which must again be closed when done: e,
a cock by which the chambers may be all drawn off. It will doubtlessly be asked, "How are the different compartments to be cleaned out?" To which we reply, That the whole front of the case may be made to take off, and to be again replaced at any time, so as to be closed sufficiently tight by means of screws. The public brewer will also say, that the beer will be liable to the taste denominated "yeast-bitten," in consequence of the yeast having so large a surface to rest on; but this effect never takes place, except in beer undergoing a violent fermentation at a considerable heat, both of which effects this plan is suggested for the especial purpose of preventing (effects which invariably impoverish the liquor and hasten its destruction,) and also to promote a more complete union with the bitter of the hop residing in the yeast, by interposing some slight difficulty to its escape.

Two cases, or receptacles of this kind will be required, that the beer may be transferred from one to the other when the fermentation has ceased. The first may then be cleaned out, and the beer allowed to remain in the other until it becomes fine,
which will take place in a few days, even in the summer months—indeed it is only during the warm weather that the utility of the proposed plan will be sensible, as there is no difficulty in producing sound and transparent beer in the winter months, whereas, during the summer, when a pleasant, mild malt liquor of moderate strength is mostly required, it can be seldom obtained.

It is to be regretted that no unexceptionable method of incorporating the flavor of the hop with beer has yet been discovered; indeed the difficulties are numerous; the first loss is in the deposition found in the coolers, for the loss by evaporation, during the boiling, we consider as nothing. This consists of a valuable part, separated by the action of boiling; and the next, and most important, is that carried off by the yeast, and totally lost to the beer; for the bubbles of carbonic acid gas, as they pass upwards through the fermenting wort, appear to have a strong attraction for the bitter of the hop, which they separate therefrom, notwithstanding the union produced by the boiling process, and carry to the top amongst the froth, where it would be quite lost to the
beer, if it were not for the head breaking as fast as it forms, and thereby descending to the wort below; but here the incorporation is again prevented, because, as fast as the bitter part of this frothy head begins to touch the surface, a part of it is instantly forced upwards again, by the constantly ascending current of carbonic acid gas; so that the bitter of the hop does but partially unite with the beer, until the tumultuary part of the fermentation is over, when it is almost too late to assist the union. On the other hand, if the beer is immediately put into casks from the coolers, to be fermented there, which is done generally in country situations, the union is in some degree promoted, by constantly filling up the casks with the portion which works over; but unless that is frequently, and uninterruptedly attended to, the loss of the flavor by this plan is even greater than by fermenting it previously in gyle-tuns, where the head, as it forms and subsides, does partially return the bitter of the hop to the body of the wort.

There are many plans proposed to enable casks of beer, whilst working, to keep themselves filled up; but if the efficacy of any of
them be put to the test of extracting the bitterness from the yeast, they will generally be found to fail. The hop seems, as it were, to be an intruder in beer, and every part of the process of brewing appears to have a constant tendency to oppose its union, and to separate and disengage it from the wort; our attention should therefore be particularly directed to counteract this propensity, and to secure an intimate and early union between these enemies, for which purpose we submit the following observations:—

The fermentation of all liquors can scarcely be conducted too slowly, and, in the case of beer, although the wort containing the extract for the malt and hop; does not readily ferment without the addition of yeast, still it will commence, and continue the operation, and in a much more complete manner, without any such assistance; but then there is some risk in warm weather, that when left to ferment of itself, it may acquire an unpleasant taste and smell, technically called "foxed." In the brewings of private families then, where speedy ripeness is not so much required, and which is purchased by the public
brewers at the expense of the finer portions of the malt and hops; and indeed to all brewers, private or public, who can wait patiently for time to supply the place of yeast, we give this advice—*Let no yeast be ever used*, but proceed according to the following plan:—

When a cask of beer is half empty, (if perfectly sound, and free from any acidity) draw it off into a clean cask of the same size, and fill up this latter with the wort from the coolers, as soon as it arrives at the temperature of 70°, remembering, at all times, to leave a small vent-hole in the casks, to allow of the escape of the carbonic acid gas, as it gradually forms. By this method of conducting the fermentation, (which will still proceed, but with great slowness) it will be found, that all the flavor of the malt and hop will thus be effectually preserved, in place of permitting the latter to escape intermixed with the yeast, to be transferred to our bread, which we could well dispense with there; for, notwithstanding the same quantity of that singular substance may be separated from the beer, (in equal reductions of specific gravity) by any method of fermentation, it must make
a vast difference in the flavor of the beer, and be attended with much greater economy, when we compel it to subside to the bottom of the cask, and there gradually to impart the fine essential oil of the hop to the superincumbent beer, in place of permitting it to flow over the bung-hole, with its precious cargo, never again to return; for its restoration, by occasionally filling up the cask with the same, whilst it is working, is but of little consequence, when this very light oil can borrow a vehicle (the carbonic acid gas) the next moment, to effect its escape again. By the slow method here recommended, the fermentation is scarcely perceptible, and, as no head of froth or yeast forms on the surface, the flavor of the hop is constantly intermixed with the whole body of the wort, and slowly forms with it an intimate and complete union. The mucilaginous part too, which, by the rapid mode, is separated in the form of yeast, and which, in proportion to its early separation, takes from the beer that fullness on the palate which is so desirable, is here retained in the wort, gradually to impart it; and when that is accomplished, as far as possible, it subsides
to the bottom, and there forms a substance for the beer to "feed on," until, at last, every part of the flavor contained in it is given to the beer; and this deposit, which then becomes what is called "lees," is quite tasteless. These lees are therefore nothing more than what would have been yeast by the rapid mode of fermentation; and the difference consists in this, that, whereas in the latter case they separate from the beer surcharged with the fine essential oil, and high flavor, both of the hop and malt; in the former, all these flavors are retained and incorporated therewith: but the public brewer must not adopt this plan in large casks, and indeed if he were to dispense with vats altogether and use no casks larger than wine pipes, his beer would always prove of superior quality, and by the method of slow fermentation, here recommended, that certainty in the manufacture would be acquired which has always been so great a desideratum. In the town of Dorchester, the fermentation of the beer is so sluggish, that the attenuation (reduction of gravity) in the gyle-tun seldom proceeds beyond one-fourth, or one-fifth of its original gravity, and then
the fermentation apparently ceases, but goes on slowly in casks; to this want of action (proceeding probably from the hard quality of the spring water in that town, which runs through beds of chalk) may be attributed the excellence of some of its beer, according to the doctrine of slow fermentation herein recommended, although in this case, at some sacrifice of the fine bitter of the hop, which is separated, and lost, in the yeasty head of the gyle-tun.
CONCLUDING OBSERVATIONS.

It may sometimes happen, in brewing from unmalted corn, that the first wort does not run off so fine as from malt alone, but that is of no consequence—it will be equally fine after the operations of boiling and fermenting. The first wort, as fast as it drains from the mash-tub, should be mixed with the whole, or greater part of the hops intended to be used, as this will secure it from injury until ready for boiling.

Should utensils be scarce, or a longer time required for cooling, as in mild weather, the last wort for the table beer may remain, without injury, in the boiler all
night, provided it be closely covered, and kept as nearly as possible at the boiling heat; and this alone will give the table beer a deeper color, which will generally be considered an advantage.

There seems to be a *racy* principle in the pale and amber malts, which only high heats in the mashes will extract, and although, by the employment of them, the quantity of fermentable matter in the wort may in some degree be lessened, we decidedly advise it, *when malt alone is employed*, for all beers intended for present drinking, but not those for keeping.

A greater dependence can be placed on the quality of the future beer if brewed before the winter commences, or in the month of October; for the cold gradually coming on, it prevents the fermentation from proceeding too rapidly, and enables the beer to sustain the heat of the ensuing summer with very little change; therefore, all beers intended for keeping should be brewed near the conclusion of the year, and those for present drinking at any time except the months of June, July, and August, in which it is nearly impossible to produce good beer.
Fining.

This is done generally by the aid of isinglass, which is prepared for the purpose in the following manner. When divided into shreds it is digested with stale beer for a day or two, until it is softened and partially dissolved; in this state, with a clean broom or wisp, it is beat up for a considerable time into a froth, and when no knob or ball remains it is fit to be put into the beer, in the proportion of about an ounce of dry isinglass per hogshead. This is all that need be done, and it requires no stirring, for when added in the state of froth, it swims on the surface of the beer at first, and will gradually descend through the whole mass, carrying all the seculencies down with it, and leaving the beer perfectly transparent. At the same time it must be acknowledged that isinglass has a tendency to flatten and impoverish it, and it seems to produce this effect by uniting with the vegetable principle called "tannin," which gives the racy and slightly rough taste to beer, and, by taking away this principle, leaves the beer much more monotonous in its flavor; indeed it is sup-
posed to be this union which gives to isinglass the property of fining liquors, and that it is inoperative where "tannin" does not exist: if this be the fact, that principle can be artificially added to liquors which are to be fined with isinglass, which would prevent the injurious effect above stated, and also render the fining more certain: indeed it is very probable that a judicious admixture of bark with beer and other fermented liquors, would greatly improve them.

We can see no reason why the same improved mode of filtering as is at present in use among the sugar refiners may not be applied to beer; the only care necessary would be to prevent access with the atmospheric air during the operation, and by this mode the cleansing, or separation of the yeast, may take place in the midst of the most violent fermentation of the gyle-tun, at any desirable degree of the saccharometer, and the beer be rendered instantly and completely fine.

Bottling.

So many circumstances affect the proper
time, and state of the beer for bottling, that it is almost impossible to define them. Beer should never be put into bottles until the fermentation has become extremely slow, and that is seldom the case much under the age of one year: it however depends greatly on the attenuation (reduction of gravity) which the beer has undergone; for if it has fermented rapidly, and the specific gravity brought down so low as 1010 to 1015, there is little danger of its acquiring too great a force in the bottles, in any climate. The only true guide is however to examine the beer frequently by the saccharometer, and if in the course of any one month there may appear to be scarcely any change in the specific gravity, (supposing the heat of it not below 50) it may be safely bottled, which however should generally be done in the spring, that the increasing heat of the days may bring it "up in bottle" by the summer; for it is most difficult to produce this effect in a daily decreasing temperature, and we have seen beer quite brisk in bottle during the warm months which has produced scarcely any "head" in the ensuing winter, so powerfully does temperature affect it. This
effervescing quality is so very uncertain, and so extremely difficult to keep up to a certain standard—neither too much to endanger the bottle, nor too little to please the consumer—and requires so much nicety in the management, that we are rather surprised that no method has yet been adopted to charge beer and other vinous liquors with carbonic acid gas, in the same manner as is now commonly done with ginger beer and soda water; the advantages of it would be great, as a due degree of effervescence could always be given to it to a certainty, at a few hours notice, rendering it unnecessary to keep any stocks of effervescing bottled liquors, and removing, almost totally, the risk of breakages in consequence of the too great accumulation of carbonic acid gas. Another advantage would be obtained in the transparency of the liquor when fully charged with the gas, which is never the case in the common mode of bottling; for, as no fermentation can take place without a deposition of lee, and disengagement of gas, so the converse is also true, that no such disengagement can ever happen without a deposition in the bottle sufficient to render
the brightest liquor turbid on the least agitation.

Perhaps the cause of the non-adoption of the proposed plan arises from the difficulty of filling and corking the bottles under such a heavy pressure, without the production of a great quantity of froth; we therefore suggest a method of obviating it, in hopes it will some day be executed and improved on. In Fig. 6. A is a vessel containing the beer (or other vinous liquid) charged artificially with carbonic acid gas, in the same manner as soda water. B the bottle to which it is to be transferred; R a rod moving through an air-tight stuffing box, having a short cork-screw for retaining the cork C at the end of it. L L' two levers, the one for forcing the cork into the bottle, when full, and the other to press the bottle tightly, whilst filling, against a collar of leather l l. The mode of operation will be thus—the lever L is first pressed down below l l to allow the cork to be fixed to it, and then drawn up to the place represented; the bottle is now placed on its stand, and forced up tightly against the collar of leather, (the top of the neck being formed conical for that purpose) the cock
D is then opened, which allows the liquor above to run into the bottle, whilst the air therein is expelled into the receiver through the pipe d. When the bottle is full, and the froth has all ascended through this pipe, the cock D is closed, and the lever L is pressed down, by which the cork is forced into the neck of the bottle, which is then removed from its stand, and disengaged from the screw by giving the bottle a few turns. All the bottles should be filled previously with carbonic acid gas when used, to prevent, as much as possible, the atmospheric air from entering the receiver A; for if the common air does find its way into it in any considerable quantity, such as a bottle full on every one that is filled with the liquor, the receiver must be frequently discharged of the air that thus enters, and thereby much of the gas will escape at the same time. The bottles can be easily filled with gas, from the gas-holder employed to charge the vessel A, in the same manner as if they were to be filled with a liquid (as the gas is so much heavier than the common air) by a long-nosed cock descending some way into the bottle, but as it might then be difficult to
ascertain when the bottle is full, it may be filled with water first, and the carbonic acid gas allowed to enter by inverting the bottle over the spout of the cock above mentioned, which in this case must be turned upwards, and the gas would then enter as the water ran out; the bottle is then to be immediately removed, and filled with the liquor. The pressure, of course, will gradually decrease in the vessel A, and must be restored by keeping the charging pump frequently going.

The following table contains the strength, or specific gravity of the wort from which the superior sorts of Scotch ale are manufactured, and also the specific gravity of the ale when the fermentation is completed:

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These specific gravities are inserted in the language of the new saccharometers used by the excise; and it is only necessary to prefix 1 or 10 to each to express them in the common method.

It is to be observed that the wort, from which these ales were made, can scarcely ever be brought to the specific gravities mentioned, but by boiling it for some length of time.

We insert another table, showing, from actual experiment, the weight per bushel (imperial measure) of different samples of malt, and the relative solid extract in pounds avoirdupois.

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