

THE ART OF BREWING

PRACTICALLY EXEMPLIFIED.

WITH FULL INSTRUCTIONS TO BREW FROM MALT,

OR IN COMBINATION WITH SUGAR,

ALES, STOUT, PORTER, AND INDIA PALE ALES.

BEING THE RESULT OF

TWENTY YEARS' PRACTICAL EXPERIENCE

IN EVERY PART OF THE UNITED KINGDOM.

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TEACHER OF THE ART OF BREWING.

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A GRIST FOR STOUT.

6 quarters pale malt.

3½ quarters porter or blown malt.

5 bushels patent malt.

CLEANSING, &C.

See Article on Porter.

EAST INDIA PALE ALE.

The malt for this material ought to be of the best quality; pale, though well dried, and not crushed too fine. The question comes now to me—a most important one it is—what degree of heat the mash should be; for, on employing a judicious heat in this process, the success of the brewer, in a very great measure, depends. My experience on this point, for many years, throws all doubts aside; therefore, my first mash will be from 156 to 165 degrees, in a 10-quarter brewing, with 18 barrels in the mash-tun. The malt is to be gradually added, and so well intermixed by mashing, that no lumps may remain. Mash for about half an hour, by which time the liquor in the copper will have attained the heat

of 175 degrees. Run over the goods two barrels at 175 degrees heat ; cover up the tun well for the preservation of its heat ; let it stand for one hour and a half ; then set tap ; and as soon as the surface of the goods are becoming dry, sparge on 10 barrels at 185 degrees, leaving your taps open till it has all run off ; then close taps and sparge on till the goods become light ; then set tap and sparge your length. The tap heats from the first mash should be from 135 to 140 degrees ; the second mash 165 to 170 degrees—that will ensure a good mash.

BOILING.

The first division of the worts is now in the copper, and next comes to be considered the quantity of hops necessary—or, perhaps, more properly—generally used. By brewers who make this beer, which will be from 18lbs to 20lbs. per barrel, the best hops would be East or Mid-Kent Goldings for this beer ; but I have, by experience, found that the Weald of Kent, Grape, and Goldings, have given as good a flavour as the others before named, and will be a great saving to the brewer, as the East-Kent are nearly double the price.

The hops must be divided into three parts : the

first part put into the copper when the wort boils, the second part twenty minutes before you set tap-making, one hour leaving the third part to go into the second wort. The brewer here should take the gravity of the first wort, that he may be thereby directed what course he will have to pursue in order to make up his second. The first wort being now in the hop-back, and the copper charged with the second, it is boiled with the remaining portion of the hops for one hour and a quarter. It is to be borne in mind, that the hops from the first wort are not returned, but are allowed to drain in the hop-back, the wort still draining from them. At the expiration of one hour and a quarter, the second wort is run upon them, and by this means much, if not all, of the valuable matter imbibed by the hops from the first wort, will be given to the second. To extract what remains from the second wort, after it has run from the hop-back, the brewer will use his own discretion, either by pressing or by a return-wort; but I advise a brewing of mild ale, as the hops will be quite sufficient for a mild ale brewing.

COOLING.

It is important that they should be reduced to the pitching temperature with as little delay as possible, as before observed.

FERMENTATION.

I have now reached the sixth stage—namely, fermentation—and, unless conducted on right principles, the brewer will not succeed in obtaining a favourable result; however, it is necessary to point out the difference between the management of these beers, at this time, and that of the ales made on the slow system.

The latter, as already noticed, are conducted by a slow fermentation; whereas the India ales are carried through by a remarkably vigorous one, so much so, that the time the worts are in the fermenting-tun seldom exceeds twenty-four hours, and at an increase of temperature of about 8 to 10 degrees. At the end of this period, they are well roused and cleansed into hogsheads or butts, and are further attenuated down to 6lbs., or it is oftentimes better lower,—say 4lbs.

The pitching heat varies according to the quantity of yeast employed, taking into consideration the temperature of the tun-room. Assuming the temperature to be 60 degrees, I consider the heat for pitching ought to be from 70 to 75 degrees, with 2lbs. to 2½lbs. yeast per barrel — this I regard as an

average practice, from November to March. If, however, the atmosphere is lower than 50 degrees, the pitching heat should be brought up, and the quantity of yeast should be a little increased.

The puncheons must be filled up every two hours, as in the management of other beers. But still more caution is necessary to be observed, in order that, while the cask is filled up with the ejected wort, that wort should be clean, and as free from yeast as possible. Should this caution be neglected, the consequence will be, that in a short time a portion of the yeast, instead of being discharged, will fall to the bottom of the cask in the shape of lees.

In some breweries, I have known them to fill up with beer, of a former brewing, instead of filling up with ejected wort; this I think a judicious practice, and very successful in obtaining the desired end.

Fermentation in the casks is generally completed in five or six days, at the above period. If the brewing has been rightly managed, the beer will be tolerably fine.

The beer is now racked into hogsheads, and allowed to remain until the head falls, when 1lb. of the finest hops having been previously prepared, by working them up with some of the beer, is put into

each hogshead, which is immediately chived or bunged down.

I consider it to be of great moment that the ale should be moderately fine before it is racked.

These ales should be from 18lb. to 20lb. gravity, by Long's, or Dring and Fage's saccharometer.

The following Table is a Scale of

ATTENUATION OF THE EAST INDIA PALE ALE.

	Time.	Heat.	Gravity.
	Oct 1	75	22
	„ 2	80	17
Cleanser into butts or puncheons. . . .	„ 3	84	12
	„ 4	82	9
	„ 5	82	7
	„ 6	80	6
	„ 7	75	4
	„ 8	70	4
	„ 9	62	4
	„ 10	61	4
This ale is now bright and fit to rack	„ 11	61	4

BREWING FROM SUGAR AND MALT.

When sugar is employed, instead of malt, there will be found a great deficiency in gravity. No doubt every brewer will be inclined to think, when