

In this process the alcohol dissolves out of the Caramel, the unconverted sugar and the bitter and most of the odorous principles and only a small amount of the coloring. By distillation the alcohol can be recovered with but very little loss and used over again. The Purified Caramel so made is in dark brown, shining, translucent scales, free from bitterness and without any perceptible sweet taste and practically odorless. It is non-hygroscopic and dissolves readily and clearly in water diluted with alcohol. The yield averaged 27 per cent., and the Purified Caramel when compared in solution with the Caramel from which it was made **showed** a tinctorial value of three times that of the latter. A sample of the Purified Caramel so made was exposed in an open vessel to the atmosphere during a rainy spell of two days when the air was charged with moisture, yet it remained in dry non-adhering scales which had absorbed but very little water and was readily dried by being placed for a short time in the desiccator. The addition of the small amount of Sodium Carbonate was found to be necessary as without it the Purified Caramel when once made and dried was not again entirely soluble in water. This is readily understood from the preliminary explanation regarding the composition of commercial Caramels.

Tincture of Caramel.—I submit the following formula for Tincture of Caramel:

TINCTURE OF CAMEL.

Purified Caramel.....	50 Gm.
Ammonia Water	10 Cc.
Water	740 Cc.
Alcohol	250 Cc.

Mix the liquids and dissolve the Purified Caramel in the mixture; filter if necessary.

Tincture of Caramel so made appears to be permanent and can be used either as a coloring or to standardize Caramel solutions. 1 cc. tincture diluted with 99 cc. distilled water or better still 199 cc. distilled water will form comparative solutions against which commercial Caramels can be readily standardized.

It is to be noted that the formula proposed by the Committee for Tincture of Caramel was 10 per cent. of the Caramel prepared in accordance with the formula given. The formula now submitted contains but 5 per cent. of the Purified Caramel, but as this is three times the strength of the commercial Caramel the tincture resulting from this formula is very materially stronger than the formula first submitted to the Committee. If 5 per cent. be considered too strong then it can be reduced to 2.5 per cent. or to such strength as may be agreed upon.

A COMPARISON OF TEN SAMPLES OF CUDBEAR.*

HUGH CRAIG.

Ever since I was first attracted by the red and green show globes in the apothecary's windows, the color of pharmaceutical preparations has been of interest to me, and this interest has led me to much experimentation. This paper is the result of one series of experiments. But I had a particular reason for undertaking the experiments with cudbear: I was desirous of reconciling the frequent state-

*Read at the February meeting of the N. Y. Branch.

ment to the effect that by using powdered cudbear in the proportions directed in the proposed formula for red elixir the uniformity of the color of that preparation was assured, with the recent report that the amount of coloring principle to be obtained from cudbear varied in different samples as much as 1 to 2.

So I procured ten samples of powdered cudbear from ten retail drug stores, two each in New York, Brooklyn, and Philadelphia; and one each in Trenton, Princeton, Englewood, and Boonton. It is an interesting fact that the drug was obtainable in only about forty per cent. of the stores visited. Each sample was extracted, in the proportion suggested in the formula for red elixir, with a menstruum consisting of alcohol, glycerin, and water in the proportions of one, one, and two volumes.

There was a marked difference in the behavior of the powders in the menstruum, particularly with regard to the rate at which they imparted color to the liquid. One of the samples had scarcely tinged the menstruum at the end of an hour, and at the end of several hours the difference in color of the liquids was many times as great as it was in the finished "elixir." The process of extraction was carried on for eighteen hours, with occasional shaking during the first three and last one. To this long maceration I attribute the fact that the colors of the finished liquids are deeper than that of several lots made in exact accordance with the proposed process—of course the difference in the menstruums must also be recognized as bearing upon this feature.

Here is a tabulation of my observations :

Where purchased	Texture of powder	Color of powder	Streak of powder	Behavior in menstruum	Rate of filtration	Color of filtrate
1. New York.....	fine.....	purple.....	purple.....	diffused..... some floated,	slow.....	deep-cherry-red
2. Brooklyn.....	coarse.....	brownish-purple.....	brownish-purple.....	some sank.....	rapid.....	bright-purplish-red
3. Boonton, N. J.,	fine.....	purplish-brown.....	brown.....	sank.....	good.....	deep-purplish-red
4. Englewood N. J.,	fine.....	light-purplish-brown.....	light-brown.....	sank.....	good.....	bright-purplish-red
5. New York.....	granular.....	deep-purple.....	light-purple.....	sank.....	slow.....	medium-purplish-red
6. Brooklyn.....	coarse.....	brownish-purple.....	brown.....	sank.....	rapid.....	light-purplish-red
7. Trenton, N. J.,	fine.....	purple.....	purple.....	partially diffused.....	slow.....	bright-cherry-red
8. Princeton, N. J.,	fine.....	light-purplish-brown.....	brown.....	diffused..... some floated,	slow.....	medium-purplish-red
9. Philadelphia....	fine.....	deep-purple.....	purple.....	some sank.....	good.....	bright-cherry-red
10. Philadelphia....	fine.....	purplish-brown.....	brown.....	sank.....	good.....	bright-purplish-red

A portion of the same menstruum, colored with an equivalent amount of an *old* tincture of cudbear, had a shade of cherry-red brighter and a trifle lighter than sample 1.

The statements of color in the foregoing table are arbitrary but the best possible in the absence of a standard list of colors for solutions. The color of No. 1 approximates very closely that of a 1 in 15000 aqueous solution of fuchsin; but the cudbear solution has a purplish tinge in thin layers.

The conclusions to be drawn from these observations are not quite so obvious as they at first appear. The ten lots of cudbear range through six distinct shades; and there are six markedly different colors among the solutions; but there is no direct relation between the color of the drug and the color of the resulting solution. It is plain that uniformity of color is not assured by the use of cudbear per se, and that some standard of color based upon a solution of a stable, definite coloring principle is the only means by which even approximate uniformity becomes possible.

BETTER TIMES FOR RETAIL PHARMACISTS.

"Some of our readers who are still in pharmacy have had sufficiently long experience to date back to the time when about all that a pharmacist knew regarding his neighbor was what disgruntled customers of his competitors told him. In those days pharmacists were more likely to look the other way than they were to greet a fellow pharmacist when they accidentally met. Times are now quite different and it is due to the good work of local organizations. Pharmacists have learned to know their neighbors as neighbors and to look upon their competitors as fellow-pharmacists in the profession and trade.

"While the social feature and the friendly feeling is an important factor in human life, it is the financial side of the present day pharmacists' calling that gives the most important contrast with conditions a few years ago. Retail pharmacists who once hesitated to pay one dollar per year dues in a state association are now perfectly willing to pay one dollar per month in their local organization, in addition to belonging to the state association and the A. Ph. A. and the N. A. R. D. They realize that the money invested in annual dues is really a business investment. Dividends are not paid regularly semi-annually, as is the case with bonds, but the returns are just as certain and as useful when they do come. The Chicago R. D. A., at its recent annual meeting, approved of a budget covering \$13,000.00 expenses for the current year. Among the items was a contingent fund for legal services. Members who get into difficulty through the regular routine of the drug business are not left to their own fate, but are backed in their positions by the entire membership of the C. R. D. A. and its corporate body. This one feature of paying dividends to members is alone worth the expense of membership. It is true that members may go along for a lifetime without legal complications, but many of our readers have had the bitter experience of suits of various kinds for which they were in no moral sense to blame."—*Meyer Brothers Druggist.*