

(1920) 01 CAL CK 0025
In the Calcutta High Court

Grande Venkatta

APPELLANT

Vs

Corporation of Calcutta

RESPONDENT

Date of Decision : 20-01-1920

Acts Referred:

Bengal Ghee Adulteration Act, 1917 — Section 2

Citation : AIR 1919 Cal 862 : 56 Ind. Cas. 586

Hon'ble Judges : Newbould, J; Asutosh Chauduri, J

Bench : Division Bench

Judgement

1. In these cases tried together as one case the accused are charged with having adulterated Ghee. The proceedings have unfortunately been very protracted. There were originally three cases ending in conviction, which came up to this Court. The Criminal Bench differed in their opinion and there was a reference to a third Judge which resulted in a remand. Their judgments are reported as Grande Venkata Ratnan v. Corporation of Calcutta 46 Ind. Cas. 593 : 22 C.W.N. 745 : 28 C.L.J 82 : 19 Cr.L.J. 753. The retrial extended over 7 months. Five experts were examined and a large number of text books and scientific journals was used. At the re trial both the accused have been convicted in respect of two samples of Gouranga Brand Ghee which were taken by the Corporation on the 31st October 1917, and sentenced u/s 495-A, Sub-section (1), to pay fines. In respect of the sample taken on the 27th November 1917 which formed the subject-matter of the third case, the learned Magistrate held that "the Corporation analysis of the sample was not as complete as it might have been." He was "not prepared to arrive at a finding of undoubted adulteration so far as that sample was concerned and although such analysis as had been made aroused suspicion." He gave the accused the benefit of his doubt.

2. The accused are sellers of Ghee, not manufacturers, and the charge is that they sold or stored adulterated Ghee. Adulteration is defined in Section 2 of Bengal Act I of 1917. The definition is fairly comprehensive and the present case is said to be covered by Sub-clause (2) of Section 2, as some foreign fat is said

to have been substituted in part for genuine Ghee. The Act provides "that a report signed by an analyst certified by the Chairman to be employed by the Corporation for the purpose of analysing Ghee shall be sufficient evidence of the result of such analysis." It is unfortunate that the Statute does not lay down a standard raising a presumption that the Ghee is not genuine. In England a committee was appointed to enquire and report as to what regulations might with advantage be made u/s 4 of the sale of Food and Drugs Act, 1899, for determining what deficiency, if any, of the normal constituents of butter or what addition of extraneous matter other than water should raise a presumption, until the contrary was proved, that the butter was not genuine; but no such steps have been taken by the Government in this country and the question of adulteration has become an extremely difficult one in consequence. The English Butter Regulations Committee took a large body of evidence and examined a large number of eminent analytical experts and tabulated the results of some thousands of determinations, the results of actual experiments, and arrived at a figure representing an analytical standard which they reported should be taken as a guide, that is to say, that if any sample fell below that figure, a presumption was to be raised that the butter was not genuine. They examined the results of experiments with butter of different countries. They took into account various factors such as climatic conditions, period of lactation, nature and amount of food, breed and idiosyncrasy of the cow. This variation in composition, they stated, had a corresponding influence upon such of the physical characteristics of butter as are used by analysts to supplement their chemical tests. The work was of an extremely difficult and technical nature and was carried on by a board of experts and a standard was fixed by them. Unfortunately nothing of that kind has been undertaken in India, and Courts of Law are sailed upon to decide questions of adulteration upon such evidence as is available in each individual case and arrive at findings on the basis of experiments which cannot for a moment be compared with the experiments dealt with by the Butter Commission. It is unfortunate that the burden of carrying on necessary experiments was thrown upon the Calcutta Corporation with its limited resources. We, however, find that the chemical experts of the Corporation have done their work with great care and remarkable ability. It was urged upon us by the prosecution that we should accept the Corporation standard and if we were not able to do so, then we should fix a standard ourselves. No doubt we must determine whether or not the Municipal standard ought to be acted upon in this case, but we must decline to fix a standard ourselves if we cannot accept it. If we did so, it would be absolutely of no value. It would not be binding upon any other Bench of this Court. As there is no statutory presumption, every case must depend upon its own evidence. We are strongly of opinion that a statutory standard should be laid down raising a presumption, and cases of this kind should not be made to depend upon the evidence forthcoming in each case testing the value of the Corporation standard. If we had to deal with butter derived from cow's milk, the English standard would be of great value, but "Ghee" is not butter. Admittedly changes take place when butter is clarified and the temperature at which Ghee is

prepared is not a negligible factor. Ghee is not defined in the Act; a further difficulty is that Ghee is produced from various kinds of milk, but the Calcutta Corporation standard is practically based upon Ghee made from buffalo milk. That particular kind alone has been treated as "Commercial Ghee", in this case a term not used in the Act, and the Magistrate has dealt with the samples as such Ghee. The Ghee most prized is that made from cow's milk which yields different analytical results. Other kinds of butter perhaps give different results but we have no data before us about them. A mixture of cow's milk and buffalo milk gives varying results, but Ghee produced from such mixture cannot be treated as adulterated as it is derived exclusively from milk. This adds to the difficulty of judicial determination.

3. In the experiments carried on by the Corporation, climatic conditions, the nature of food, period of lactation, breed, stabling and local conditions have not been considered, nor has the temperature of manufacture been taken into account, and the resulting variation noted. It appears that sudden alterations of temperature, exposure to wet and cold winds, affect the volatile acids which are a characteristic constituent of butter fat as distinguished from other fats. All these factors were carefully considered by the Butter Regulations Committee of England and they determined that what is known as the Reichert, Wollny method, hereafter referred to as the R.W. method, supplied a safe test. Butter fat has not a constant composition. The variations are sufficiently wide rendering the establishment of a presumption of adulteration, on the basis of a deficiency in the normal proportion of some one or other of its constituents, very difficult. The R.W. test determines the amount of volatile acids which butter may contain. According to the committee that test fulfils the conditions of a quantitative method which can be made the basis of judicial proceedings. They fixed a limit, although the results of the experiments largely varied. In so doing they were mindful of two considerations, namely, that it was sufficiently low not to press harshly upon too large a proportion of genuine if abnormal butters, and on the other hand that it was sufficiently high to take away the inducement for adulteration. These points have to be kept in view.

4. The samples of Ghee, the subject matter of the charges in this case, were bought by the Corporation from the place of business of the accused in Calcutta on the 31st October 1917. One was said to have come from Sagore, Exhibit 1, and the other came from tins marked Gouranga Brand from Guntur (Madras), Exhibit 2, A third sample Exhibit 3 was bought on the 27th November 1917 from tins marked Gauranga Brand, Guntur. The place of production is a matter for consideration. In this case the analyst was not told the place of origin. When the Ghee was purchased, no mention was made what kind was wanted, cow or buffalo Ghee, and the Ghee purchased has been treated as " Commercial Ghee, " namely, buffalo Ghee, which according to the evidence is mainly sold in Calcutta. It is also a cheaper Ghee than Ghee produced from cow's milk. That also supports the supposition that what was sold was buffalo Ghee.

5. The Corporation have from their experiments arrived at a certain standard for pure Ghee. Four tests have been applied by them to test its purity: (1) The Reichert-Wolff process, (2) the Butyro-Refractive index, (3) Saponification, (4) Wellman's test. Butter fat and Ghee are characterised by the presence of certain volatile fatty acids, principally two, which are known as Butyric and Caproic acids. The proportion of these volatile acids is by general consent of chemists by far the most important criterion in butter analysis and it is known as the R.W. number. The process consists in liberating the fatty acids and preparing a distillate, a definite quantity of which is neutralised by titration with a decinormal alkali solution. The amount of the decinormal solution required to neutralise that quantity of the distillate is called the R.W. number. The figures arrived at in the Corporation Laboratory for buffalo Ghee range from 30 to 42 in the case of individual animals and 29 to 39 in the case of samples from herds of cattle. The latter is considered more reliable as eliminating the idiosyncrasy of individual animals. The Corporation has adopted 30 as the standard raising a presumption of adulteration so far as buffalo Ghee is concerned. In the same way they have laid down 25 as the minimum R.W. figure for cow Ghee. The R.W. figure adopted in England by the commission for butter derived from cow's milk is 24. More than nine-tenths of the samples before the English Committee yielded figures between 24 and 32, and by far the greater amount of these were between the limits of 26 and 31. Samples yielded results as high as 35 and as low as 18.4, but having regard to their infrequency and special conditions the Committee after a general review of the whole matter arrived at 24 as a safe standard. We are called upon to accept 30 as a safe standard for Calcutta Commercial Ghee. Whether we can do so or not we shall examine later.

6. The Butyro-Refractive index process hereafter referred as the B.R. process, is a sorting process testing the density of the Ghee. The Corporation standard is 40 to 42. If the refraction is found to exceed 42 adulteration is suspected. B.R. Index is said to be the same for both cow and buffalo Ghee. By this process whether the adulteration is vegetable or animal cannot be ascertained and it is not claimed that it is anything more than a rough test.

7. The Saponification test consists in finding out the number of milligrammes of caustic potash required to saponify one gramme of fat. The average figure for buffalo Ghee according to the Corporation is 229 and for cow Ghee 227. It is said that if the figure goes down it indicates adulteration.

8. Wellman's test is a colour test for detecting the presence of vegetable oil, but it fails in the case of coconut oil. The Ghee is melted and dissolved in a little chloroform and a reagent is applied. The presence of oil other than coconut oil is indicated if a green colour appears at the top, which turns blue on the addition of ammonia.

9. The Corporation standard is, therefore, as follows:

R. W. B. R. Sap. Wel. Pure buffalo Ghee .. 30 40--42 229 Negative. Pure cow

Ghee .. 25 40--42 227 Negative. According to their experiments, R. W. B. R. Sap. Wel. Ex. 1 (yielded) ... 26 6 44 222 Positive (Showed colour) Ex. 2 ... 24.9 45 220 (Ditto) Ex. 8 ... 27.1 44 222 Negative (No colouration).

10. The learned Magistrate has come to the conclusion that the following figures ought to be adopted in testing adulteration.

11. R.W. 28, B. R. 40--42, Sap. Buf. (229), Cow (227). In this connection it may be mentioned that certain chemists and analysts of Calcutta held a conference in 1917 at the instance of the Corporation. At that conference the R. W. figure agreed upon was 28 for " Commercial Ghee." Two of the expert defence witnesses were members of that conference.

12. In England the R.W. figure alone has been adopted as a test for adulteration, but we cannot accept the figure arrived at by the Corporation as by itself raising a presumption of adulteration, having regard to the limited number of experiments and because sufficient allowance does not appear to us to have been made for the varying conditions above referred to. Dr. Ghose, the Corporation expert, says that on the R.W. figure alone he would not give any opinion. He would on " all the others, " referring to the three other tests. He. says if he found a sample give the R.W. figure " as below 30, between 24 and 30, and near 24, while the other teats, satisfactory," he would regard it as pure cow Ghee and pass it as genuine.

13. It appears from the evidence that the consignment of Ghee from which samples were bought by the Corporation came from Madras. The accused have produced their books and railway documents have also been produced corroborating their statement. There is no evidence to the contrary. The Corporation has not carried cut any experiments in Madras Ghee. There is evidence, though not of much value, that in Madras cow's milk and buffalo milk are mixed together and milk from goats and sheep is also mixed, in the preparation of Ghee.

14. The evidence is that if buffalo and cow Ghee are mixed, the R.W. figure adopted by the Corporation for buffalo Ghee is lowered, the limits of such variation being between 25 and 30. The R.W. figure of Exhibit 1 is within those two limits. Exhibit 2 gives 24"9 which is just below the cow standard by I which is a very small difference. It is admitted that the R.W. process is a highly technical process and that if the details of analysis are not minutely carried out, the results may be vitiated and that various errors may creep in. But even taking that the analysis was scrupulously and very carefully carried out, beyond raising a suspicion of adulteration nothing more can be said from the figures found by the Corporation.

15. It is then urged that the other figures not only confirm the suspicion, but lead to certainty. Let us examine this contention. It is said by Dr. Ghose that the same causes that influence the R.W. figure also influence the figures under the other two tests, i. e, the B.R. index and the Saponification number, and that the

variations in one test shew a corresponding variation in the other two. Mr. Briggs, one of the expert witness for the defence, admits that the three tests are consistent i. e, they vary consistently with each other. Mr. Thomas, another expert witness for the defence, says that if all the four tests (including the Wellman test) agree, they would be sufficient to pronounce upon the genuineness of the sample, although they would not give absolute certainty in every instance. Mr. Hay ward, another expert witness for the defence, however, says that he would not in all cases consider the four tests as sufficient, though he might in some. He admits that generally speaking they would indicate the presence of foreign fat and the nature of that fat may be determined by the melting point and Wellman's tests, but that they may break down in special circumstances. It depends, he says, on the extent of the variation from the standard, but if the results are all very kindred, he says, they would be sufficient. On the evidence and also from the text books and scientific journals placed before us, we have no hesitation in holding that the B.R. and Saponification tests afford valuable corroboration, that the same causes which influence the R.W. figure, influence them and that they vary consistently.

16. In this case, the R.W. figures are below the Corporation standard, the Saponification value is also below that standard and the B.R. is above in each.

17. The Corporation standard for B.R. is 40--42, for Saponification, buffalo 229, cow 227.

18. The conference accepted the same B.R. figure as the Corporation, and the Saponification figure for buffalo accepted by them was 225 to 233, the Corporation figure being the average between 225 and 235; but the samples Exhibit 1 and Exhibit 2 yielded B.R. 41 and 45 and Saponification 222 and 220 respectively.

19. From the evidence we take the Corporation standards for B.R. and Saponification to be fair. Mr. Briggs admits that they are fair. The B.R. figures for cow and buffalo are the same and a mixture of the two would not make any difference. The Saponification figures in this case are much lower and a mixture of the two kinds of Glue would not account for it. It is an inconsistent variation. Taking these figures into account, even the defence experts say that the samples in this case are suspicious, though they do not in words admit that a positive deduction of adulteration can be arrived at from them.

20. In addition to the above, Wellman's test in this case yielded a positive result, showing that there was oil in the samples. The text books show that oil sometimes passes through the food taken by the animals, and it was strenuously urged before us that the presence of oil in the samples may have been due to the feeding. Whether it had or had not so passed could be ascertained by what is known as the phytosterol acetate test, which has not been undertaken by the Corporation. That undoubtedly can be urged, but the result of Wellman's test cannot be altogether ignored by us although the last mentioned test was not

employed. The samples of Bengal and United Provinces Ghee examined by the Corporation have given negative results by Wellman's test. No doubt Madras Ghee has not been examined as such by the Corporation, but we have the following evidence about the food. Girish Chandra Mukherjee, a partner of the accused, who is the only witness on the point says :

As to food I have seen in the United Provinces cotton seeds, barley, wheat bran being given. There are no paddy districts there, only " Jowari," Kooli "or dry barley plants are given. In Bengal straw, repassed are given. Cattle in Bengal do not get the same food as in Madras. In Madras you have rice, husked rice dust.

21. This does not show that any specially oily food is given to cow or buffalo in Madras. A large quantity of oil cakes as food may cause some oil to pass into the milk according to the evidence, but there is no evidence that in Madras they are more largely used for cattle food than in Bengal or the United Province?. Taking all these tests together, we think that it has been established that the samples are adulterated.

22. We uphold the able judgment of the trial Court, although we are not able to confirm the standard for Commercial Ghee which he has accepted. The Ghee in this case, even if it be considered as a mixed product of buffalo and cow Ghee has, in our opinion, been adulterated by foreign fat.

23. The conviction and sentence are upheld.

24. The appeal is in respect of the two cases based upon Exhibits 1 and 2. They were tried together and are covered by one judgment. Separate fines have been inflicted on each charge. As the total amount exceeded Rs. 200 the appeal was filed. No objection has been taken to that on behalf of the Crown. Applications for revision were filed by way of greater caution, should it be contended that the appeal was not maintainable. The appeal is dismissed and the applications rejected.

25. In conclusion we think we ought to add that we have received very great assistance from Counsel on both sides in this case and that special mention should be made of the ability and fairness with which the learned Vakil for the defence has conducted his case.