Table showing relation of fat in milk to yield of cheese.

Date.		Per cent. of fat in milk.	...ds o... ...t in 300 pounds of milk.	Pounds of g... ...n cheese made from 300 pounds of milk.	Ratio of fat to green cheese.
L	June 4........	3.080	9.240	28.25	1 : 3.0
	May 7........	3.193	9.579	27.50	1 : 2.8
	June 6........	3.194	9.582	29.75	1 : 3.1
	May 2........	3.482	10.446	27.75	1 : 2.6
	June 8........	3.564	10.692	31.00	1 : 2.8
Total..............		....	49.539	144.25	1 : 2.9
H	June 6........	3.655	10.965	32.75	1 : 2.9
	May 7........	3.685	11.055	29.25	1 : 2.6
	May 2......,..	3.899	11.697	29.75	1 : 2.5
	June 8.	4.000	12.000	32.50	1 : 2.7
	June 4... :...	4.338	13.014	33.75	1 : 2.5
Total................		......:...	58.731	158.00	1 : 2.6

From the milk having more casein for each pound of fat, more cheese for each pound of fat would be expected, than from the milk having less casein for each pound of fat. What are the facts? Fifteen hundred pounds of milk L., containing an average of 3.302 per cent. of fat or a total of 49.539 pounds, yields 144.25 pounds of green cheese, being 2.9 pounds of cheese for each pound of fat. The same weight of milk H., containing an average of 3.919 per cent. of fat or a total of 58.731 pounds, yields 158 pounds of green cheese, being 2.6 pounds of cheese for each pound of fat. Under exactly similar conditions of handling, the rich milk yields $13\frac{3}{4}$ pounds more cheese than the poor milk, but the poor milk makes $\frac{3}{10}$ of one pound of cheese more for every pound of fat than does the rich milk.

Suppose L. and H. to represent two patrons, each supplying 1,500 pounds of milk. L.'s milk yields 144.25 pounds of cheese and H.'s milk 158. Then, if the cheese nets 9 cents, patron L. should receive 144.25×9 or $12.98; and H., 158×9 or $14.22. Had these patrons been paid according to weight of milk alone, each would have received equal shares. In all, 302.25 pounds of cheese were made, netting 9 cents a pound, $302.25 \times 9 = 27.20$ would be divided equally, each patron receiving $13.60. Accordingly, patron L., supplying the poor milk, would be paid 62 cents too much, and patron H. 62 cents too little.