

THE OVERRUN.

Calculating Payments For the Patrons of Creameries.

One patron brings milk to the creamery, where it is tested and separated. He then takes away the skim milk containing a certain amount of butter fat which it is impossible to remove by the separator. Nevertheless he is credited with the whole amount of butter fat in the whole milk, although he carries away in the skim milk probably 3 per cent of what he brings. Another patron brings cream to the creamery, where the amount of butter fat it contains is also determined. In this case the patron receives no skim milk and hence takes no butter fat. It is all used by the creamery.

In a recent bulletin of the Vermont station J. L. Hills, discussing this subject, says that butter weighs considerably more than the butter fat in the milk or cream from which it is made. The difference, known as the surplus or overrun, is greater in creameries receiving only cream from patrons than in creameries receiving only milk. According to Professor Hills, "a great deal of careful comparison has shown that in the long run the excess of surplus arising from the making of butter from the average gathered hand separated cream as compared with the manufacture of butter from average delivered milk approximates 3 per cent. One method of calculating payments given on the Vermont bulletin is based upon the division of the surplus so that the cream patron shall receive 3 per cent more than the milk patron. It is advised that each creamery establish its own factor by periodic test churning and use that in preference to the 3 per cent factor, which represents an average.

Silencing Clover.

Whether it is advisable to put clover into the silo is by no means a settled question, says Hoad's Dairyman. There are dairymen who have had splendid success in silencing clover and recommend this method of preserving at least a portion of the clover crop. On the other hand, some dairymen, on account of the strong odor that clover silage possesses, object to the system of preserving clover. Silage made from clover is certainly a splendid feed for cattle, and we would not hesitate to put a part of our clover crop into the silo if we could not raise corn. In climates where there is likely to be considerable rain when the first crop is cut the silo seems to offer one of the best ways for preserving the first cutting of clover.

Swelling Cream.

When the cream swells in the churn and revolves with it without dropping from one side to the other the cream has become extremely viscous from either stripper cows or dry feed or from both these causes. Throwing a handful of salt into this cream in the churn or a pailful of warm water will overcome this viscosity so that the cream may be churned.—Professor Farrington in Hoad's Dairyman.

Milk and Butter Notes

When milk is separated at the farm immediately after milking the cleanest and sweetest cream possible ought to be obtained. It certainly should be better than that skimmed by a factory separator from milk which is two to twenty hours old.

Keep the Profit Yourself.

If you make butter to sell make good butter. Don't let the renovating factories get the profits which belong to you.

Warm the Separator.

In operating the separator in weather when the bowl and parts are cold, it is best to pour a quart or so of hot water through the machine just as it is started. This will warm up the machine and prevent the milk sticking, as it would if cold.

Order Is the First Law.

Many dairymen always keep the same cow in the same stall, have the same milker milk the same cow each time and milk the cows in the same order.

Usual Causes of Poor Butter.

Farrington of Wisconsin finds that the usual causes of defective butter from gathered cream are keeping the cream in unsuitable places and holding it too long before delivery at the creamery.

Skim After Each Milking.

Skim the milk immediately after each milking, as it is more work to save the milk and separate once a day and less satisfactory than skimming while the milk is warm, since the milk must be heated again when saved until another milking.

Satisfaction in Rich Cream.

A rich cream testing 35 per cent fat or more is the most satisfactory to both farmer and factory. The best separators will skim a rich cream as efficiently as a thin cream, and more skim milk is left on the farm when a rich cream is sold.

Poor Mixing.

Warm cream should never be mixed with cold. The result of mixing is always quick souring. The bacteria in cold cream are dormant or inactive and will remain so if kept chilled.

Bacteria Keep Busy.

To cool the cream quickly and thoroughly just as soon as the separating is finished is of more importance than anything else at that particular time. The pigs and calves can wait for their skim milk, but bacteria in the cream wait for nothing, until the temperature favorable to their growth is reduced.

Butter Sticking to Utensils.

The stickiness of butter utensils made of wood may be avoided by washing well in very hot, clear water and scouring well with salt. Says a Rural New Yorker correspondent.

TO REPAIR COUNTY ROADS.

A Missouri Judge Would Use Part of Road Fund For That Purpose.

The need of a practical system of maintenance of macadam roads in Jackson county, in Missouri, has at last been recognized by the county court, says the Kansas City Star. Judge G. Lee Christian recently announced that he was in favor of using a large part of the road fund, now amounting to \$170,402, to maintenance of rock roads already built in repair.

As evidence of his interest in the matter Judge Christian went out the other afternoon with Oscar Koehler, the county surveyor, to inspect several macadamized roads which have been allowed to become almost impassable through neglect to keep them in repair. Among the roads to which the attention of the county court has been particularly called is Sixty-third street from the Wornall road to Elmwood. Sixty-third street is a macadamized road. There are two deep cuts in it, and large quantities of shale and soap stone have blocked it in several places. Yet Sixty-third street furnishes only one of several instances where a macadam road has become practically useless in places through neglect.

The people who are accustomed to using the macadam roads are insisting that some action be taken toward the adoption of a system for permanent maintenance.

"What is the use of building fine macadam roads if they are not kept in repair?" said a Jackson county farmer. "The county road money coming from the dram-shop fund has been mostly used in the past for building new roads. Now let the county court use a good part of it for keeping them in repair."

REAL GOOD ROAD ADVOCATE

Nevada Man's Plan to Realize a Dream of Boyhood Days.

John P. Hennessy, a man who has made a fortune in Tonopah, Nev., has given \$10,000 to build a good wagon road from Burnt Ranch, Trinity county, Cal., to the mouth of the South Fork in Humboldt county, and thus realize a dream of his boyhood days, says the Auto Advocate and Country Roads. Hennessy was born and reared at Burnt Ranch, on the lower Trinity river, a settlement that to this day is reached only by pack trains over rough mountain trails. He was ten years old before he ever saw a wagon road, which was the one which still ends at South Fork, Humboldt county. To him that wagon road was then a great wonder, and he said that when he got to be a rich man he would build the road to his home at Burnt Ranch.

He repeated the promise frequently during his youthful career and was always laughed at by his hearers. He is now a man of great wealth and has returned to Burnt Ranch to visit his parents, who still reside in the remote settlement. He has since made good his childish promise, for he has already set twenty-five men to work building the wagon road to South Fork. It is to be completed in a workmanlike manner and made a first class road on light grades. It is to be free to the public and a monument to Hennessy.

How the Farmers Are Benefited.

It should not take extended argument to convince any farmer of the benefits that will accrue to him by reason of the construction of a good, enduring highway past or through his farm, says the Binghamton Press. The experience of owners of farms along the good roads already built is most encouraging. Their land has increased in value. This increase comes from two causes—first, they are able to market their products easier and with more regularity in all weather; second, the increasing tendency of city folks to buy small pieces of land for the purpose of erecting summer homes enables farmers to dispose of small tracts of land at a profitable price, and the presence of these summer visitors gives them a nearby market for farm produce.

English Roads.

Dr. Henry van Dyke writes as follows in June Scribner's concerning the English roads: "What good roads they have in England! Look at the piles of broken stone for repairs stored in little niches all along the way, see how promptly and carefully every hole is filled up and every break mended, and you will understand how a small beast can pull a heavy load in this country and why the big draft horses wear long and do good work. A country with a fine system of roads is like a man with a good circulation of the blood—the labor of life becomes easier, effort is reduced and pleasure increased."

Making the Road Attractive.

In the construction of a road the work of beautifying the sides of the highway should not be neglected. Flowers, shrubbery and trees should each have a place along the roadside. They refresh the eye and cultivate a love for the beautiful in nature, making a trip over the road a pleasure to be remembered. The appearance of the roadside is generally a pretty good index to the character of the owner of the premises. A clean, well kept roadside is an advertisement for the owner and adds value to the land.

Good Road Maxims.

If we cannot secure all our rights, let us at least secure good roads. If you'd have good roads, prepare to make 'em now. Time is money, and a good road saves much time. Be sure you've got a good road, then go ahead. One good road is worth two bad ones, maybe more. Good wine needs no bush, and good roads need no bushes.

MILKING THE COW.

Things to Think About—The Milker in the White Suit.

An important thing in connection with milking is the condition of the hands and clothes of the milker. The milker should be clean personally and should be required to go about his work in clean clothes. The milking should be done with dry hands. The habit of some milkers of wetting their hands with milk just as they begin is a filthy practice and the cause of much bad milk and poor butter. There is something in the presence of a milker in a white suit that calls for clean work, particularly if he is required to keep the suit clean while about his work. Many dairymen require their milkers to be dressed in white.

The same principle is true in regard to whitewash on the interior of the barn. A carefully whitewashed wall shows off cowbats to their disadvantage, and they will usually be removed. There is something out of place if part of a building is kept clean and fresh—as a whitewashed wall, for instance—and other parts are a mire of filth. Whitewashed walls go with clean floors, and the two with a white clad milker.—Edwin H. Webster.

Butter Eaters.

Nothing eats up butter faster than discomfort and fear, because they shrink the butter fat and so make their milk, which is steering the butter into the manure pile instead of into the churn, says J. V. Van Nott in Rural New Yorker. Therefore have warm floors and warm stables. A cow cannot run a furnace and a churn with the one feed. Another butter eater is the stanchion. Farmers are very careful to have for themselves warm floors and feather beds, but leave their dutiful cows hanging by the necks in the cruel stocks named stanchions and to get what sleep they can on a frost carpeted floor. Both should be abolished by law as cruelty to animals.

We can also class the horns with butter eaters, and the boss cow eats more butter than the farmer's family, for every time she spears the other cow "shrink" goes the butter fat. Her ally is the dog.

Cause of Cow Failure.

Don't let your cow eat her head off. A few cows give 400 pounds of butter fat in a year. A great many give 300 pounds or more, and yet it is a deplorable fact that the average cow does not produce much over 100 pounds in a year. But in a great many instances this failure of the cow to reach a point where she may be considered as a profitable investment is due to the care, or rather to the lack of care, which she receives.—Michigan Farmer.

Raw Milk For Infants.

German clinical evidence indicates that cows' milk used raw is much better than boiled milk for feeding infants affected with gastric or intestinal catarrh.

Feeding the Milk Maker

I cannot understand how any dairyman can get along without a silo. I recently heard one successful dairyman say that if he had built a silo five years earlier he would have easily saved \$1,000. I figure that when you get twenty tons of silage to the acre it is equal to seven tons of the best hay. That ought to settle the question, says a Connecticut dairyman in American Agriculturist.

Wonderful Forage Crops Possible.

It is difficult to understand why the southern dairymen do not raise their feed. The system of dairying that is carried on in the north, if adopted, could not fail to be more profitable to the producer and more healthful for the consumer, affirms C. F. Doane in an exchange. The amount of forage that can be raised on an acre of land in most of the southern states is beyond the conception of the northern farmer.

The Pasture a Back Number.

"Nobody but a billionaire can afford a pasture," states Mr. Detrich, as quoted in Farm Journal. "Selling is the correct idea. Grow the feed and bring it to the cows. Rye, oats and peas, sweet corn, ensilage, hay, etc., are the keystones of modern farming. The pasture is a back number."

At Calving Time.

At calving time many breeders feed warm bran mash, and some give tepid water for drinking purposes until the cow has regained her normal condition.

Serving the Dairy Cow's Feed. In England a great deal of attention is given to the preparation of feed for dairy cows. Grain is usually crushed or ground. Chaffing or cutting straw and hay is a very general practice. Roots are usually pulped or sliced.

More Roots to Be Used?

An increased use of roots is being advocated in this country. In Great Britain they are fed to dairy cattle as well as to beef animals, but when feeding them to milk cows the best dairymen take pains to avoid tainting the milk by their use.

Dairy Feeding Well Understood. I suppose no other question has received more consideration among our farmers in the past twenty-five years than this question of feeding, and the result is the general principles of feeding today are pretty well understood. It has been said, and I think with a good deal of force, that the dairy of the average farmer is better fed than the family of the same farmer.—H. Wing.

Skill in Feeding Feed.

Skill in buying a food adapted to your use that is relatively cheap in your own locality is a question of great importance.

Libraries for Lane County Schools.

County School Superintendent Dillard has completed the apportionment of the library fund to the districts of the county, and we publish herewith a list of the amounts allotted to Cottage Grove districts and those in this vicinity:

The last session of the legislative assembly passed a law requiring school libraries, and making it mandatory that the books be purchased through the state library commission. The commission has made contracts with some of the leading publishing houses of the country for furnishing the books at reduced rates. Catalogues of the books recommended for school libraries were sent out some time ago.

Districts are permitted to apply other funds of their own to the purchase of library books besides the regular apportionment, and are allowed the reduced rates when ordering through the commission. Books not on the list of the commission will not be ordered for the districts.

Cottage Grove gets from this fund \$47.97 and a list of books has been selected which will be added to the school library before next year's work commences.

C. R. Loomis, Lorane	\$1.98
J. B. Linebaugh, Cottage Grove	4.50
G. C. Brown, Cottage Grove	5.40
C. A. Smith, Saginaw	8.73
Annie Lyons, Cottage Grove	3.78
H. M. Doty, Lorane	5.40
Geo. Ber's, Lorane	.64
E. S. Addison, Lorane	2.16
J. L. Clark, Creswell	12.96
J. F. Wright, Walker	2.25
J. F. Barrett, Cottage Grove	47.97
Roscoe Yearous, Cottage Grove	4.86
Mrs. John Weeden, Cottage Grove	2.88
H. C. Combs, London	2.79
Mrs. Mary V. Reetz, Creswell	2.15
W. C. Shortridge, London	3.69
Frank Mackie, Walker	4.14
Frank J. Damewood, Willwood	2.48
J. H. Kirk, Dorena	7.02
Mrs. Ruth Casteel, Saginaw	1.80
Jessie Kelley, Cottage Grove	1.98
Rollin Wicks, Star	3.06
C. W. Sears, Cottage Grove	2.43
M. Doane, Creswell	1.80

Grand Picnic Sunday the 15th.

The Foresters of America Band will give a grand excursion to the end of the O. & S. E. R. R. on Sunday the 15th. The picnic grounds are located about half a mile above Geo. Kerr's residence in a beautiful grove right by the clear mountain stream, fed by numerous springs and rivulets. The boys will send a company of Foresters fully equipped with tools, good things to eat, tents, etc., so that everything will be arranged for comfort. There will be a grand stand, with booths for ice cream, and all kinds of good things to eat.

The railroad fare will be one and a third round trip, train leaving Cottage Grove at 7:30 a. m. and reaching home in the cool of the evening.

Everybody is invited to join in and have a cool day in the hills.

Mitchell Acquitted of Murder of Creffield.

Seattle, July 10.—It took the jury in the trial of George Mitchell just one hour and twenty-five minutes to determine the youth not guilty of murder in killing of Holy Roller Creffield in Seattle May 7. The verdict was read at a quarter to five this afternoon and was greeted with rounds of applause from the excited audience. Every face assumed a happy expression and many women became hysterical, weeping through their smiles when the verdict was read.

A few minutes later the prisoner was discharged from custody. He shook hands with the jurors and was then treated to a general ovation. Men and women crowded up close to the rail to shake hands with the youth who was clearly the hero of the hour. As he went down the stairs to the jail to gather up a few of his effects and he told farewell to his jailers and fellow prisoners of the past few weeks, his way was blocked by people eagerly crowding over the banisters to catch a glimpse of the acquitted youth.

Asked as to his feelings with regard to the killing, and as to the ordeal which was that suddenly terminated, the young man replied when he killed Creffield he hardly knew what he was doing, so worked up had he become by the wrongs he and his sister had suffered. He stated he could not regret he had removed the man from possibility of harming his family.

Mitchell will leave tomorrow for Portland where he will probably resume the position in the mill which he held previous to the killing of Creffield.—Journal.

A. B. Wood and J. A. Rade returned from Portland on the afternoon train Tuesday.

High Grade Meats

Fresh Beef, Pork, Mutton and Veal always ready.

Our Refrigerator

is the finest in Oregon.

Fresh Fish each Tuesday and Friday.

See our plant, everything new and up-to-date.

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You will always be happy if you burn electric lights, for they will "Tickle you to death."

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The Funny Pictures for the Children

Children always enjoy the Leader supplements. The Leader is going to make this a permanent feature, and we know your children would appreciate getting the Leader regularly. Don't fail to subscribe for the Leader.

Mrs. Eva Cook is visiting in Eugene.

Rev. Billington and wife returned to the Grove Tuesday.

Market Reports.

Portland, July 14, 1906.

GRAIN, PRODUCE, FEED.

Wheat—Walla Walla, 71c; Valley, 72c; bluestem, 74 red, 70c. Oats—White \$32; gray, \$31. Barley—Brewing, \$24; feed, \$23.75; rolled, \$25 to 26. Hay—Timothy, \$11.00 to \$12.50; clover, \$8.50 to \$9; cheat, \$7.50 to \$8; alfalfa, \$11. Millstuffs—Middlings, \$25 to 26; chop, \$17; bran, \$17 to 18; shorts \$18 to 19. Flour—Hard wheat, patent, \$4.10; straight, \$3.45; Graham, \$3.50; rye, \$5; whole wheat flour, \$3.75; valley flour \$3.50 to 3.65. Dakota, \$6.50 to 7.25; Eastern rye, \$5.40; Pillsbury, \$6.20. Corn—Whole, \$26; cracked, \$27 per ton. Rye—\$1.50 per cwt.

Butter—Fancy creamery, 18½c, 20c; city cream ry, 21½ dairy 14 to 15c; store 13 to 13½c. Cheese—Young America, 14½c Oregon full cream, 13c to 13½c. Eggs—Fresh Oregon ranch 21 to 22.

Poultry—Roosters, 9 to 10c; hens 13; fryers, 16c to 17; broilers 14 to 16c; geese, live, 8 to 8.50 dressed, 11-11½; turkeys, live, 14-15.

FRUITS AND VEGETABLES. Grape fruit—Crate \$4. to 4.50. Cranberries—\$14. Potatoes—Oregon, 40 to 65c.

LIVESTOCK MARKET. Cattle—Best steers \$4.75 to 5.00; cows, 3.50 to 3.75; calves, \$4.00 to \$5.00.

Sheep—\$4.00 to 4.50. Hogs—\$7 to 7.25. HOPS, WOOL, ETC. Hops—Choice 10 to 11 Mohair, choice 28 to 30c. Wool—Valley 22 to 25 c; East, 20c Oregon 14 to 22c.

INDIGESTION.

No appetite, loss of strength, nervousness, headache, constipation, bad breath, general debility, sour risings, and catarrh of the stomach are all due to indigestion. Kodol Dyspepsia Cure cures indigestion. This new discovery represents the natural juices of digestion as they exist in a healthy stomach, combined with the greatest known tonic and reconstructive properties. Kodol Dyspepsia Cure does not only cure indigestion and dyspepsia, but the famous remedy cures all stomach troubles by cleansing, purifying, sweetening and strengthening the mucous membranes lining the stomach.

Kodol Dyspepsia Cure after meals is not only thoroughly reliable digestant, but it contains great tonic and reconstructive properties as well. This famous remedy enables the stomach and digestive organs to thoroughly digest, assimilate and contribute to the tissues all of the nourishment that is contained in such food as may be eaten.

Kodol Dyspepsia Cure clears the way and makes sure the journey from sickness to health and weakness to strength. If the stomach is disordered Kodol will cure it.

Kodol Dyspepsia Cure lays the foundation for health, and the upbuilding of strength by cleansing, purifying and sweetening the glands and membranes of the stomach, and by supplying natural juices necessary to perfect indigestion, assimilation and

nutrition. Kodol digests what you eat, prevents cholera, diarrhoea, flux, dysentery and summer complaints generally, and its use will cure indigestion and chronic dyspepsia permanently. Kodol is good alike for young and old. Your druggist sells it.

DeWitt's Little Early Risers

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Red Clover Blossom and Honey Bee on Every Bottle.

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Freight prepaid. It is a high-arm, drop

head, full bearing, lock-stitch, double feed, self-threading shuttle; has automatic bobbin winder and other latest improvements. This is the ANTI-TRUST MACHINE. It is the same machine agents are asking you \$60 for. All attachments go with each machine. Sold for only \$25 cash and \$5 monthly.

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It cleanses, soothes, heals, and protects the diseased membrane. It cures Catarrh and drives away a Cold in the Head quickly. Restores the Senses of Taste and Smell. Easy to use. Contains no injurious drugs. Applied into the nostrils and absorbed. Large Size, 50 cents at Druggists or by mail; Trial Size, 10 cents by mail. ELY BROTHERS, 56 Warren St., N.Y.C.

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Rates per day.....\$1.00

Room and board, per week.....\$4.00

ARRIVAL AND DEPARTURE OF S. P. TRAINS.

NORTH BOUND SOUTH BOUND
No. 12.....11:55 p.m. No. 11.....8:00 p.m.
No. 16.....2:02 a.m. No. 15.....2:34 a.m.

O. & S. E. R. R. CO.

Time Table No. 4

To take effect April 24, 1905.

East Bound 3 and 4 Tuesday W. Bound

and Sat only

1 and Daily Ex-

cept Sunday. No 3-504

No. 1-101 M. STATIONS Elev. A.M. P.M.

2:30 7:20 0 Cottage Grove.....671 12:10 1:15

2:30 7:30 0 Walden.....710 10:40 1:15

2:30 7:35 0 Corvallis.....727 10:40 1:15

2:30 7:40 0 Corvallis.....727 10:40 1:15

2:30 7:45 0 Baker.....807 10:40 1:15

2:30 7:50 0 Baker.....807 10:40 1:15

2:30 7:55 0 Baker.....807 10:40 1:15

2:30 8:00 0 Baker.....807 10:40 1:15

2:30 8:05 0 Baker.....807 10:40 1:15

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