



The manufacture of Swiss cheese is rapidly growing in the United States, but the industry is handicapped more or less by serious losses due to abnormal fermentation.

A recent bulletin of the Wisconsin station reports the results of a study of the causes of an outbreak of gassy fermentation of an unusual nature in Swiss cheese. The first abnormal condition is generally noted in the brine



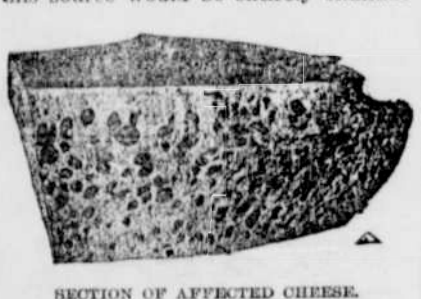
CHEESE SHOWING CRACKING AT EDGE.

tank. When placed therein the cheese does not seem to absorb salt in the usual way. The first most evident symptom of trouble usually appears when the cheese has been on the shelves for a week or so. The edge of the cheese cracks or opens, generally near the junction of the top or bottom and the side. See first cut. This split continues to increase in length, running around the circumference of the cheese, and in severe cases the interior of the curd may be forced out through this crack.

In the second cut this stretching of the plastic curd toward this opening is well shown. This is, of course, due to the pressure of gas within the cheese. The texture is rubbery or leathery and shows gas holes, always more numerous than are to be found in a normal No. 1 Swiss. In all cases the flavor is decidedly "off," a disagreeable, sweet taste being observed. The affected cheese is also usually "off" in color.

Investigation showed that the abnormal fermentation was due to the presence of yeast cells which in some unknown way had gained access to the milk and passed into the cheese.

The Wisconsin authorities say: "The quicker the whey can be delivered to the farmers the less likely are troubles of this sort to develop. Dangers from this source would be entirely eliminated if a different receptacle from the can used for the fresh milk was employed to carry back the whey to the farm. Old, discarded cans that are not fit to use for milk could be utilized for this purpose."



SECTION OF AFFECTED CHEESE.

When a factory once becomes badly infected through disinfection is considered necessary to destroy the germ. If steam is at hand, even a momentary exposure is sufficient to destroy its vitality, but where reliance is had only on a scalding temperature (150 degrees F.) it is necessary to prolong the period of exposure for at least ten or fifteen minutes. For washing the walls and floor of a factory a 2 per cent solution of hot lye will prove effective.

**Increase of Milk Fat.**  
A bulletin from the agricultural experiment station of Cornell university describes experiments carried out on ten cows to ascertain whether the fat in milk could be increased by liberal feeding, mixtures of such foods as cottonseed meal, wheat bran, gluten feed, buckwheat middlings and linseed meal being given, as much as the animals would consume readily. In most cases twelve pounds per cow per day, which one cow exceeded. The summary of conclusions is that in a herd of poorly fed cows an abundant ration easily digestible and rather nitrogenous in character continued through two years resulted in an average increase of one-fourth of 1 per cent of fat in the milk, which was about 6 per cent of increase on the quantity given. This was accompanied by an increase of about 50 per cent in total amount of milk and fat produced, and the increased production was secured economically.

**Washing the Separator.**

When in regular use many cream separators are washed only once a day and flushed once a day, says Kimball's Dairy Farmer. This is far from thorough cleansing. Running cream through a dirty separator is similar to running it through a dirty strainer with all the filth of the previous milking left in it from twelve to twenty-four hours. The millions of undestructible bacteria from the dirt, manure and slime lodged in the separator bowl spoil all the milk to a greater or lesser degree that passes through the machine. Every part of a separator should be thoroughly washed each time after using. Some good washing powder should be dissolved in the water used. Scald or steam the parts and let dry while hot, using no cloths, for they are a great source of contamination.

**Loss in the Dairy.**

Poorly constructed stable floors, insufficient bedding, negligence in care of stables and in properly cleaning the cows before milking will surely result in a product unfit for any use and from which it is impossible to make good flavored butter or cheese.

## GOOD ROAD PROJECT

EFFECT OF THE AUTOMOBILE IN FURTHERING IT.

Physician of Jamestown, N. D., Thinks Instruction on Good Highways Ought to Be Given in Public Schools and Mentioned in Political Speeches

North Dakota, especially that portion lying west of the Red river valley, has a soil that is especially adapted by nature for good roads, says Dr. Dwight S. Moore of Jamestown, N. D., in Auto Advocate and Country Roads. As a general thing, very little attention is paid to the subject of good roads in North Dakota.

Only exceptionally in a wet season is there much necessity for the problem to be considered seriously from the standpoint of traffic and local transportation. The subjects of the advantage of wide tires, of the natural curves which the roads ought to take in order to facilitate the hauling of heavy loads and of a long even pull over comparatively level ground, in preference to short steep ascents in a straight direction toward the goal, are very little considered or thought of apparently by the farmers, the very class of people who should be most deeply interested in such questions.

Even on these prairies a slight impetus was given to the good road movement by the adoption of the bicycle. The use of the bicycle has somewhat died out as a recreation among people of wealth, culture and education, and as a consequence the use of it has ceased to be so much of a factor in the creation or preservation of good roads.

The automobile has been more than a substitute as an incentive to interest in the subject of good roads everywhere among that class of people who are known as "hustlers" and who make things "got along some" when they want to obtain any desired object. The probability is that a dozen automobile enthusiasts in any community will do more in accomplishing the creation and preservation of highways presenting a smooth, round, hard surface and few difficult grades at all seasons of the year than 500 farmers, although the latter should be more strictly interested in the same problem. But the farmers seem to lack organization and just

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BAD ROADS KEEP THE FARMER POOR.

how to go about it to obtain the objects desired, or else they really have not considered the subject enough to get enthusiastic over it. In other words, I think the diffusion of the automobile throughout the country is going to be the principal factor in the furtherance of the movement in favor of good highways.

Of course a campaign among the farmers ought never to be neglected. They use the roads more than any other class of people, and good roads are more vital problems with them than with any other class. Those interested in the subject of good roads, therefore, ought never to neglect an opportunity to hammer away at the mass of the people on the subject and convince them by every possible means that the problem of good highways for pedestrians, horsemen, bicycles and automobiles is one of the most essential factors in the upbuilding of the wealth and property of the country. I think instruction on the subject ought to be given in public schools, and especially in the country schools, so that every boy might understand how important, in a commercial way, this subject is and how to go about it to improve the local condition of the roads in his immediate neighborhood.

The demonstration by machines, etc., of the making of good roads by special trains going through the country and stopping here and there in different localities is, of course, an excellent proposition, but it would take a century if this were the only means to accomplish anything in the way of results. The country is too vast.

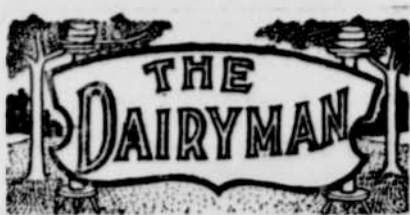
The agricultural department puts out a large quantity of literature on that subject which is accessible to any one having interest in it and who will send for it, but very few of the class of people whom it is desired to reach know about it or will take the trouble to send to the department for literature. Instruction upon the subject ought to be forced upon them through the columns of the farmer's paper, periodicals and popular magazines which are everywhere reaching the homes of the western farmer at this time. No political speech, Fourth of July oration, Memorial day address or Thanksgiving sermon ought to be considered or allowed to be delivered unless it contained a good rousing paragraph or two on the right side of the good roads movement.

**Maintenance of Gravel Roads.**

In order to maintain a gravel road in good condition it is well to keep piles of gravel alongside at frequent intervals, so that the persons who repair the road can get the material without going too far for it. As soon as ruts or holes appear on the surface some of this good fresh material should be added and stamped into position or kept raked smooth until properly consolidated.

**Dairy Form.**

The type of the cow has just as much to do with milk giving capacity in proportion to feed consumed as the form of the horse does in making of him a wasteful or an economical feeder. We have all seen slab sided, leggy horses that required a barful of hay and fifty ears of corn a day to fill up. There is the same difference in cows. It pays the farmer to be able to judge of the value of cows by the animal's form—dairy form.—Farm and Ranch.



The points in the operation of a cream separator by the farm dairyman, given in their order of importance as bearing on the quality of the work, are summarized as follows by an authority on buttermaking:

First.—The speed of the separator must be uniform and up to the standard required by the makers of that particular machine.

Second.—The temperature of the milk should be such as will make it flow readily; the warmer it is the more perfect will be the separation.

Third.—The amount of milk that is run through the machine should remain constant and should not be increased over that which is intended for the machine.

Fourth.—The machine should be set on a solid base or foundation, so that there will be no jar or shaking about as it is turned, such as would tend to interfere with the even flow of the milk through the bowl and thus destroy its efficiency in skimming.

Fifth.—The separator must be kept thoroughly and scrupulously clean, particular care being taken that none of the tubes through which the milk flow becomes obstructed in any way.

Sixth.—The test of the cream can be readily changed by changing either the cream outlet or the skim milk outlet.

**Record for Continuous Milking.**

Hoar's Dairyman gives the portrait and some details about this Holstein cow, Carren Wase De Kol, seen in the



CARREN WASE DE KOL.

fine herd of R. M. Hotaling of San Francisco. Her owner claims for her the world's record, April, 1905, for continuous milking. She has made 20.13 pounds of butter fat in seven days and 10.96 pounds of butter fat in seven days after 270 days' continuous milking.

**The Cost of Milk Production.**

The New Jersey experiment station demonstrates that with cows yielding 6,500 pounds of milk per head per year the cost per quart is about 2.4 cents. What must be the cost of the quart in the case of the 5,000 pound cow, the 4,000 pound cow, the 3,000 pound cow and the 2,500 pound cow? Will not the cost range higher as the yield ranges lower?

If the 6,500 pound cows put 2.4 cents into a quart of milk the 5,000 pound cows will put 2.7 cents, the 4,000 pound cows over 3 cents, the 3,000 pound cow close to 3.5 cents and the 2,500 pound cow nearly 4 cents into the quart.

On the other hand, if the 6,500 pound cow makes milk at a cost of 2.4 cents a quart a 7,500 pound cow will put only about 2 cents into the quart, the 8,000 pound cow only 1.9 cents, and the 9,000 pound and 10,000 pound cows would put proportionately less cost into the quart.—New York Farmer.

**When the Cow Freshens.**

It is generally advisable to have a cow go dry before she freshens. From four to six weeks is none too long a rest. Many good cows have their milking habits so firmly established that they must be forced dry. The simplest and safest way to stop the milk flow is to cut the feed down to a small allowance of hay and milk but once a day, or empty but half the udder at one milking and the other half at the next, thus alternating till the milk flow ceases. Then more generous feeding should be resumed, but the feeds used should be of a laxative character. A freshening cow is a sick cow and should be treated as such. She should not be exposed to violence, to cold or to storms. Her feed should be limited in quantity and be easily digested. As she fully recovers gradually increase her feed to a full varied ration.

**Graded Milk.**

It is estimated by C. E. Marshall of Michigan that 12 cents per quart is not too high a retail price for milk when all the conditions under which it is produced and handled are ideal. He argues for the production and sale of milk of different grades on a business basis. Such specifications as seem fair for the production of 5 cent milk, 6 cent milk, and so on, should be agreed upon by contract between producer and consumer. The producer should decide upon what grade of milk he is willing to produce. The consumer should understand clearly the difference between, say, 5 cent milk and 10 cent milk and should decide what grade he wants.

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## Market Reports.

Portland, April 26, 1906.

GRAIN, PRODUCE, FEED.

Wheat—Walla Walla, 67c; Valley, 68c; bluestem, 68 red, 65c.

Oats—White \$28; gray, \$28. Barley—Brewing, \$23.50; feed, \$23.50; rolled, \$24 to 25.

Hay—Timothy, \$9.50 to \$10.50; clover, \$8.50 to \$9; cheat, \$6.50 to \$7; alfalfa, \$10.

Millstuffs—Middlings, \$25 to 26; chop, \$19; bran, \$17 to 18; shorts \$18 to 19.

Flour—Hard wheat, patent, \$3.85; straight, \$3.40; Graham, \$3.50; rye, \$5; whole wheat flour, \$3.75; valley flour \$3.20 to 3.45 Dakota, \$6.50 to 7.25; Eastern rye, \$5.40; Pillsbury, \$6.20

Corn—Whole, \$24; cracked, \$25 per ton.

Rye—\$1.50 per cwt.

PRODUCE.

Butter—Fancy creamery, 20 21c; city creamery, 20c to dairy, 14 to 15c; store 14 to 15c.

Cheese—Young America, 16c, Oregon full cream, 15c.

Eggs—Fresh Oregon ranch 17.

Poultry—Roosters, 8 to 9c; hens 14; fryers, 10c to 11; broilers 20 to 22c; geese, live, 8 to 8.50 dressed, 11-11 1/2; turkeys, live, 14-15

FRUITS AND VEGETABLES.

Apples—Green, \$2.50 to 2.75.

Grape fruit—Crate \$3 to 3.50

Cranberries—\$14.

Tropical fruits—Lemons, fancy, \$4.00; choice, 3.25 per box; oranges, \$3.25 to 3.50; bananas, 5c per lb; pineapples, \$4.50 to 5 per dozen.

Potatoes—Oregon, 60 to 75c.

LIVESTOCK MARKET.

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

Sheep—\$6.00 to 6.25.

Hogs—\$7 to 7.25

HOPS, WOOL, ETC.

Hops—Choice 10 to 11

Mohair, choice 25 to 28c.

Wool—Valley 26 to 27 c; East, ern Oregon 18 to 20c.

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 colic, 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.

**SHERIFFS SALE ON EXECUTION IN FORECLOSURE.**

Notice is hereby given that by virtue of an execution and order of sale issued out of the Circuit Court of the State of Oregon for the County of Lane on the 27th day of March, 1906, on a judgment rendered in said Court on the 8th day of March, 1906, in a suit wherein Lillia J. Wheeler was plaintiff and L. S. Pengra and A. F. Wheeler were defendants and against the above named L. S. Pengra Defendant for the sum of Eight Hundred Seventy Three and 30/100 Dollars with interest thereon from said 8th day of March, 1906, at the rate of 9 per cent per annum and sixty five & no-100 Dollars attorneys fees and the further sum of Seventeen & 45/100 Dollars costs and disbursements which judgment was enrolled and docketed in the Clerks Office of said Court in said County on the 15th day of March, 1906 and said Execution and Order of sale to me directed Commanding me in the Name of the State of Oregon in order to satisfy said Judgment, costs and accruing costs to sell the following described real property to-wit:

The North half of the North East Quarter and the North half of the North West Quarter of Section No. Eighteen in Township No. Twenty One South Range No. Three East of the Willamette Meridian Lane County, State of Oregon.

Now Therefore, In the Name of the State of Oregon and in Compliance with said Execution and Order of sale I will on Monday the 7th day of May, 1906, between the hours of 9 o'clock A. M. and 4 o'clock P. M. to wit at One o'clock P. M. said day at the South west door of the County Court House in Eugene, Lane County, Oregon, offer for sale for cash, subject to redemption, all of the above named Defendants L. S. Pengra and A. F. Wheeler right title and interest in and to the above described real property.

Dated this 28th day of March, 1906.

FRED FISS,

Sheriff of Lane County, Oregon.

### 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.

### J. H. Bartels & Co.

Phone Main 33.

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

### Cottage Grove Electric Co.

### Lodge Directory.

#### A. F. & A. M.

Cottage Grove Lodge No. 51.  
Meetings 1st and 3rd Wednesdays of each month.  
L. F. Wooley, W. M.  
J. B. Lurch, Secy.

#### G. A. R.

Appomattox Post No. 34.  
Meets at 1 p. m. on the 2nd and 4th Saturday of each month.  
Dr. D. L. Woods, Post Com.  
G. W. McReynolds, Adjutant

#### W. O. W.

Bohemia Camp No. 260.  
Meets each Friday evening.  
F. C. Coffman, Consul Com.  
Chas. VanDenburg, Clerk.

#### O. E. S.

Cottage Grove Chapter No. 4.  
Meetings held on 2nd and 4th Friday of each month.  
Mrs. C. H. Burkholder, W. M.  
W. S. Bennett, W. P.  
Miss Celia Lurch, Secy.

#### K. of P.

Juventus Lodge No. 48.  
Meets every Wednesday night.  
L. W. Baker, Chancellor Com.  
Chas. VanDenburg, K. of R. & S.

#### I. O. O. F.

Cottage Grove No. 68.  
Meetings every Saturday night.  
S. S. Shortridge, N. G.  
Gus D. Gross, Secy.

#### Royal Neighbors.

Meets 2nd and 4th Wednesday of each month.  
Ethel Bisby, Oracle.  
Mrs. C. W. Wallace, Recorder.

#### M. W. of A.

Meetings 1st and 2nd Tuesday.  
LeRoy Woods, Consul.  
C. W. Wallace, Secy.

#### K. O. T. M.

Cascade No. 66.  
Meets every Thursday night.  
O. H. Veatch, Com.  
R. K. Dennis, Cooter.

#### L. O. T. M.

Lady Lamson Hive No. 42.  
Meets 2nd and 4th Friday of each month.  
Mrs. Mary Schmutz, L. C.  
Miss Leta Sanford, K. K.

#### Rebekahs

Cottage Grove No. 24.  
Meetings 1st, 3rd and 5th Friday of each month.  
Etta Baker, N. G.  
Katie B. Veatch, Secy.

#### M B A

Modern Brotherhood of America  
Meets 2nd and 4th Tuesday at I. O. O. F. Hall.  
T. W. Jenkins, Sec.

What good does it do you to eat if your stomach fails to digest the food? None. It does you harm—causes belching, sour stomach, flatulence, etc. When the stomach falls a little Kodol Dyspepsia cure after each meal will digest what you eat and makes the stomach sweet.

**Early Risers**  
The famous little pills.

Subscribe for the Leader.

THE ORIGINAL LAXATIVE COUGH SYRUP  
**KENNEDY'S LAXATIVE HONEY AND TAR**  
Red Clover Blossom and Honey Bee on Every Bottle.

**Buy on Credit!**  
this \$60 Machine for \$25  
FREIGHT PREPAID.

It is a high-arm, drop head, ball bearing, lock-stitch, double feed, self-threading shuttle; has an 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 \$3 monthly.

Write TODAY for free FURNITURE CATALOGUE showing elegant household goods we will ship freight prepaid on Easy Payments—our new CREDIT Plan.

**Govertz Furniture Company**  
173-175 First St., PORTLAND, OR.

### CATARRH

**ELY'S CREAM BALM**  
CURES GOLD IN HEAD  
ROSE-COLD  
HAY FEVER  
50 CTS. BOTTLE  
TRADE MARK  
ELY BROS. NEW YORK

This Remedy is a Specific, Sure to Give Satisfaction. GIVES RELIEF AT ONCE.

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 absorbs Large Sizes, 50 cents at Druggists or by mail; Trial Size, 10 cents by mail.

ELY BROTHERS, 56 Warren St., N. Y.

### Cottage Grove HOTEL

MISS I. E. THOMPSON.

Rates per day ..... \$1.00  
Room and board, per week..... \$4.50

ARRIVAL AND DEPARTURE OF S. P. TRAINS.

NORTH BOUND		SOUTH BOUND	
No. 12	11:53 p.m.	No. 11	8:45 a.m.
No. 16	2:02 a.m.	No. 13	2:24 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		and Sat only		and Sat only	
1 and Daily Ex- cept Sunday.		1 and Daily Ex- cept Sunday.		1 and Daily Ex- cept Sunday.	
No. 3—No 1	STATIONS	Elev	A.M.	P.M.	No 2—No 4
2:30-7:30	0 Cottage Grove	673	11:20	5:15	2:30-7:30
2:30-7:30	0.2 Walden	710	10:49	5:05	2:30-7:30
2:30-7:30	0.5 Curran	727	10:44	4:59	2:30-7:30
2:30-7:30	0.8 Cerro Gordo	770	10:38	4:53	2:30-7:30
3:04:04	1.1 Baker	807	10:33	4:47	3:04:04
3:14:14	1.4 Iorena	841	10:28	4:41	3:14:14
3:17:17	1.7 Red Rock	891	10:23	4:35	3:17:17
3:30:30	2.0 Gravel Pit	901	10:20	4:30	3:30:30
3:35:35	2.3 Stewart	914	10:17	4:26	3:35:35
3:38:38	2.6 Star	915	10:15	4:24	3:38:38
3:41:41	2.8 Rocky Point	946	10:11	4:19	3:41:41
3:50:50	3.6 Red Bridge	1020	10:05	4:10	3:50:50
3:53:53	3.9 Wildwood	1040	10:00	4:00	3:53:53
3:57:57	4.2 Hunt's	1060	9:55	3:50	3:57:57
4:00:00	4.5 End of Track	1060	9:50	3:45	4:00:00

Subject to change without notice.

All outward freight forwarded only at the joint risk of shipper and consignee. Stage leaves immediately after the arrival of train on Mondays, Wednesdays and Fridays for Bonita and Orwaco. Returning on Tuesdays, Thursdays and Saturdays.

Freight will not be received at the O. & S. E. R. R. Depot after 5 p. m. To insure forwarding on next train freight must be delivered in ample time to permit of its being billed.

**A. B. WOOD, Manager**