PAPERS AND ADDRESSES

Delivered at the

ANNUAL OREGON DAIRYMEN'S CONVENTION

Held in Hillsboro, Or., Jan. 3 and 4.

The first paper on the program was by William Schulmerich, one of the most successful and progressive dairymen in Washington County, and who has dairy interests at Farmington. Mr. Schulmerich is recognized as an authority on dairy affairs.

The Dairy Cow and Her Care.

He took for his subject "The Dairy Cow and How She Should Be Cared For." In part, he said:

"The principal obstacle to successful dairying in this state, and the United States as well, is keeping cows that do not pay for the food they consume. Not many men will keep a horse 10 or 12 years that has not been able to earn his feed. Yet there are many who keep cows which draw on their owners' pocketbook annually and the owner never knows it. Why farmers and dairymen keep such cows, when we have all the facilities of knowing exactly what each yields the owner in dollars and cents, is beyond comprehension.

"I will answer some of the arguments of men who advocate the keeping of 'dual-purpose cows.' A cow weighing 1000 pounds when in full flow of milk requires from two to three pounds digestible protein, 10 to 14 pounds digestible carbohydrates, and one-half to one pound of ether extract. About 60 per cent of this ration is used as fuel for the cow's system, and the remainder for the production of milk. If a cow is worth keeping at all, she will pay to keep for a milking period of 10 or 12 years. One weighing 800 pounds would require one-fifth less food for fuel than the 1000-pound animal. At the end of 12 years we find the extra amount of food consumed by the large cow is worth at least five times as much as the extra 200 pounds of old cow beef she produced.

"The next argument is large veals. A veal weighing 80 pounds at the age of 30 days requires 10 pounds more milk daily than one of 60 pounds weight at the same age. The average value of milk being one cent per pound, we find the large veal has consumed $3 worth more milk than the small one. Credit the large veal with 20 pounds extra weight at 8 cents per pound would be $2 40, leaving a balance of 60 cents in the small veal's favor.

"The next argument is most important and applies to a community where there is no market for veals, as is the case in some of our coast counties. Shall we sacrifice an animal of the dairy type that produces at least 75 pounds more butter annually than an animal of the beef type, giving the latter the credit of producing a steer worth $10 more than one from the former? My experience with dual-purpose cows leads me to classify them with patent medicines that are claimed to be good for everything, and when tried are found to be good for nothing. A representative of Hoard's Dairyman has recently taken a census of 100 dairies in a community in Iowa. His report gave the number of cows in each dairy, the cost of food consumed by each, the number of pounds milk and butter produced, and the amount of money received for butter. Forty-two of the 100 dairies produced less than $1 worth of butter for every $1 worth of food consumed. The stock on every one of the 42 dairies were either dual-purpose or high-grade Durham and Polled-Angus cows. Those classed as dual-purpose were native and Durham grades. The dairy having the lowest returns was 42 cents for butter for every $1 worth of food consumed. As the old saying is, 'This was losing money on the goods.'

The Best Dairy Animal.

"The object to be attained by practical dairymen is to supply themselves with cows of the dairy type. This is an animal with a lean head, wide between the eyes, strong jaw, rather long thin neck, sharp withers, shoulders a distinct wedge shape, ribs well sprung, large stomach, showing large food capacity, high arching flank, incurving thigh, hind legs well apart giving plenty of room for large udder. As no up-to-date dairyman will sell his best cows, the proper and best way is to raise them. Select a bull with a distinct dairy form, whose ancestors were cows and producers of cows with large milk and butter records, as many generations back as possible. Test each cow by weighing her milk, and test it with a Babcock tester, multiply the milk by the test and add one-sixth to the product, which gives the amount of butter the cow produces. Raise the heifer calves from the best cows. Give them three quarts of whole milk twice daily the first week. The second week take away half of the whole milk, and add three quarts of skim milk instead. The third week skim milk can be fed entirely. Always feed the skim milk at a temperature of about 90 degrees. If it is not convenient to warm the milk on a stove, add boiling water with a tablespoonful of oil meal stirred in. Be careful not to feed too much skim milk—and never cold, for the result would be indigestion and scours. For a remedy for the above complaint give two tablespoonsful of castor oil. Repeat in 12 hours if necessary. A little ground oats is an excellent food when the calves are old enough to eat. Keep them in a growing condition all the time, but not too fat, and breed them when 12 or 15 months old.

"Cows are quieter and many accidents can be prevented if their horns are removed. Dehorn them when the calves are one week old. Take shears and cut the hair from the head around the horn, dip your finger in soapsuds and wet the horn, then rub it with a stick of caustic potash. One application is generally sufficient.

"The next object for successful dairying is comfortable and well-ventilated barns, with plenty of windows, especially on the south side of the building, as sunlight is a great destroyer of disease germs. No stanchions should be used for fastening cattle, for cows must be comfortable to do their best. Imagine how we would feel with our heads held in one position for 16 hours at a time. If a cow could speak, she would object to treatment of this kind just as soon as we would. I use what is known as the model cow stall, in which cows can be kept clean and comfortable, which is absolutely necessary. Cows should never stand in a barn facing each other unless there is at least 12 feet of space between them. Neither should there be a solid wall immediately in front of them, so that foul air that has been expelled from their lungs will be breathed again. Never leave the cows out in cold or rainy weather any longer than necessary to let them drink and to clean the stables, for if they become chilled it will require extra feed to supply animal heat. We should always feed a balanced ration. As there are many who do not understand what a balanced ration means, I will advise them to procure Professor Henry's book, entitled 'Feeds and Feeding,' or read the dairy papers.

Every Farmer Should Have Silo.

"Every farmer that has cattle should have a silo, for there is no other food that can be procured as cheaply as ensilage. I have had four years' experience feeding ensilage. I have ensiloed peas, oats, corn and clover. I find clover ensilage the best, and also less expensive, than any I have used. Five acres of good clover will fill a 60-ton silo. It should be cut when the first blossom begins to turn brown, and then run through a cutter. No water need be used, as some people advocate, for too much moisture in ensilage makes it too sour. Ensilage should be throughly tramped while the silo is being filled. The round circular silo is best, and one 12 feet in diameter is large enough for 25 cows. If the silo is built too large it can not be fed fast enough and will mold when exposed too long to the air. When there are no turnips, roots or ensilage at hand, cows in full flow of milk will do fairly well with the following rations: Five pounds bran, five pounds country shorts or 10 pounds city shorts; or eight pounds bran and two pounds oil meal; or eight pounds finely ground barley and two pounds oil meal. With the rations named the cows should be fed all the clover hay they will eat. If 30 pounds of roots or ensilage are fed with the rations named, cows will do much better, for a succulent food aids the digestion of the concentrated food. If vetch or alfalfa or hay are fed, both containing a large amount of protein, eight pounds ground barley or corn will balance the ration. A ration is that which is fed to a cow for a period of 24 hours.

"A small boy on a horse is a very poor motor to drive cows to and from the pasture, for he generally wants to see if the cows can run as fast as the horse. Equally as bad is a dog that persists in bringing in one at a time as fast as she can run. All treatment of this kind results in a lesser flow of milk and much less per cent of butter fat. Milk and feed your dairy cows as nearly as possible at regular hours."

Value of Silos.

George W. Weeks, a Salem dairyman, read the following paper on "What I Know About a Silo":

"The silo has long since passed its experimental stage, and is going to be one of the main factors in bringing about the solution of the feed problem of the Willamette Valley. It will also solve the much-vexed question of 'what to do with our corn crop.' It has been proven to my satisfaction that we can raise, with wise selection of seed and proper tillage, a crop of corn that might average fairly well with our Middle Western States, but the preservation of the same has been an obstacle in our damp Fall and Winter climate. The advent of the silo solves the problem.

"In the latter part of the '80s there was a great amount written on the subject of the silo. I always scanned The Oregonian for information on the subject. In the Summer of 1889 I constructed a frame silo, 14 feet 4 inches square, inside measurement, boarding it double with matched lumber, with tar paper between, 20 feet high. My first crop was put in whole, cutting it up as it was taken out for the cattle. The second year I cut the corn in the silo. The result was better in every respect. I was troubled more or less by elevation of the crop until this year. I had a cutter with a blower attached, which has solved the problem of elevating the corn into the silo.

"I also used the corn harvester this year, which is a great step forward. My next silo was built by going into a tall fir grove and peeling long saplings, setting them into the ground about two feet and about two feet apart, using double boards and tar paper, as in the first one, 30 feet high. A third silo I built 2x6x26 feet high, dressed all around, 11 feet in diameter, and consisting of 72 staves, 2x6 feet. A fourth silo I constructed the same as the third. It consists of 72 staves, 26 feet long, with nine hoops. There are 20 silos in my neighborhood now, and more contemplated. Several of my neighbors have adopted the Page wire fence for hoops, and a continuous door. One has tried lumber rough from the saw. The Page wire fence is giving general satisfaction, and in my judgment is the coming hoop, as it is much cheaper than any other.

"My 11 years' experience with the silo have proven to me the following facts: That you can double your herd; that you can furnish a succulent food the year around; that you can utilize vegetation of all descriptions; that it enables the farmer to build up his soil, and keep that machine we call 'the cow' in constant use."

Creameries and Cheese Factories.

Professor F. L. Kent, of Corvallis, secretary of the association, in discussing "Oregon Creameries and Cheese Factories," said in part:

"Six weeks spent among the creameries and cheese factories of Western Oregon enabled me to visit practically all of these institutions west of the Cascade Mountains. The actual number visited was 70, of which 19 made cheese only, 10 made both butter and cheese, and the remaining 41 made butter only. These factories comprise practically all the establishments entitled to the name, but do not include those individuals who handle their own milk only. The Oregon State Fair management defines creamery butter as that made from the milk from the farms of two or more individuals, hence what is often called the private creamery is not considered in this connection. Out of the 70 factories visited, 12 were built in 1899. Knowledge was gained of seven other cremaries in process of construction or already completed, making 20 new creameries and cheese factories established during the past year. This, however, does not necessarily mean a proportionate increase in yield, as some of these new factories have been established in a territory already pretty well covered. This is particularly true in the Coquille River, in Coos County. Five other smaller creameries were not visited, owing to isolation and limited time. I know of at least five inoperative creameries, making the total number of creameries and cheese factories in Western Oregon not far from 100. There is a large number of so-called creameries, which are not included in this estimate, as they handle the owners' milk only.

"The object of my visit to these creameries and cheese factories was largely for the purpose of collecting statistics relative to the value and the amount of business done in 1899. The capital invested in these 70 establishments amounts to $136,000. The average modern-built creamery was reported as representing about $2500 investment. The better built cheese factories represented an average investment of $1600. The total output from these factories for the year 1899, as shown by an inspection of the records, was as follows: Amount of butter made, 1,631,134 pounds; amount of cheese, 1,115,915 pounds; amount paid to patrons, $416,665.

"The two counties of Coos and Tillamook are shown to have produced nearly as much butter and cheese as all the rest of the western part of the state. Following are the figures for these two counties: Coos County, butter, 299,560 pounds; cheese, 182,831 pounds; paid to patrons, $91,368. Tillamook County, butter, 191,786 pounds; cheese, 701,187 pounds; paid patrons, $101,413. These figures show Coos County to be the leader in the production of butter, while Tillamook leads in the production of cheese. These cheese figures warrant me in making the statement that Tillamook County produces more cheese than all the rest of the State of Oregon. In addition to the above figures, individual cheese plants produced 28,300 pounds, making the total reported amount for Tillamook County during 1899, 729,487 pounds. Washington County ranks third in the value of creamery butter and cheese. The factories visited report $46,146 paid to patrons in 1899, and a conservative estimate of the amount paid out by the two or three small factories not visited will bring the amount up to about $60,000. Accurate figures are not available for the dairy products of Eastern Oregon, but a liberal estimate for this section, together with the few Western Oregon creameries not visited, would bring the total production of butter and cheese for the entire state for the year 1899 up to about 2,500,000 pounds."

Methods of organization and operation as practiced in some of the establishments visited were discussed. Wages of butter and cheese makers and the compensation allowed secretaries and managers was alluded to. The address closed with a discussion of creamery accounts.

Alex Chalmers, of Centerville, read a very extensive paper on "What Shall We Feed?"

HILLSBORO, Or., Jan. 4.—The second day's session of the Oregon State Dairymen's Association was this morning opened with an address by Dr. James Withycombe, vice-director of the Oregon Agricultural College. Dr. Withycombe took as his subject, "Problems in Feeding." He said in part:

"Paramount in importance to the selection of the dairy cow and the providing of suitable environments for her, is the question of feeding. The modern dairy cow is literally a delicate piece of machinery, and her digestive organs are practically a chemical laboratory. No less skill is required in handling the modern dairy cow than for the successful operation of the most delicate and complicated piece of machinery. Much thought is given to the development of the dairy cow, but entirely too meager attention is given to the education and training of the dairyman. Dairying in the true sense of the term implies much more than the mere item of competency to carry feed to the animal, the act of milking and cleaning out the stable. The dairyman should possess knowledge of the laws which govern the health of his animals; the functions of the digestive organs and the fundamental principles of milk secretion. Without this information he simply pursues a hit-or-miss course.

Correct Feeding of Cows.

"Correct feeding of the dairy cow requires not only a sufficient supply of palatable, nutritious food, but also that this food should be of the proper composition. Numerous experiments have demonstrated pretty conclusively that for best results cows should be furnished with feed containing the nutritive elements in a given ratio. This is popularly expressed as standard rations. The dairyman is apt to disregard the advice to adopt a certain ration for his cows, due in a measure to preconceived ideas that the teaching emanates from theory rather than from practical determinations. There is but little doubt that improper rations fed to the cows are responsible for material losses in the dairy industry. Milk and butter fat are composed of well-known chemical elements. These elements do not originate in the digestive organs, or the circulatory system of the cow, but must first exist in a crude form in the food the cow consumes. Digestion is simply separation of nutrients and reducing them to a form suitable for elaboration into tissue and milk. Thus we can readily see that without the cow is supplied with food having the proper ingredients and in sufficient amount, the equilibrium of the system will be disturbed. This generally means lessened milk secretion. On the other hand, if too large a quantity of food is given, it is not all appropriated, hence the cost of producing the milk is increased. This may be carried to such an extent as to render the operation of dairying unprofitable.

It is well to heed the advice of those who have carefully studied the matter of rations for cows. Experimentists who are competent to give advice are practically agreed on the fact that a cow weighing 1000 pounds in full flow of milk should consume 25 pounds of organic substance daily, containing two and a half pounds of digestible protein, 12½ pounds carbohydrates and about ½ pound of fats. This ration is found to be satisfactory in meeting the wants of the system and in supplying all the elements contained in the milk with the waste of food reduced to the minimum. Mistakes in feeding commonly occur in three ways, viz., overfeeding, underfeeding and by giving food lacking the proper constituents. The first entails loss by feeding the cow more than she can appropriate; the second diminishes the normal capacity of the cow to produce milk; the third may cause losses in two ways, first, for the want of the proper amount of a necessary element of the food; second, by feeding an excess of one or more food elements thereby entailing a waste. For example, a cow fed 1½ pounds of digestible protein and 15 or 20 pounds of carbohydrates cannot make a normal record. The lack of a sufficiency of protein will cause her to shrink in milk yield, while the excess of the other food element will be fed at a loss. These leaks are important items and should be carefully guarded against.

Well-Balanced Ration Important.

"There are but few intelligent dairymen who do not understand the meaning of a balanced ration and recognize its important relation to successful dairying. The ordinary crops of the farm are comparatively rich in carbohydrates, or starchy matter, but usually are poor in protein, or albuminoids, 'vegetable albumen,' hence the dairyman should endeavor to grow crops which will give him reasonably cheap protein. In Western Oregon leguminous crops, such as clover, vetch and peas will furnish cheap protein in a desirable form. For best results the major portion of these crops should be fed green, as soiling crops, or in the form of silage. This is recommended for two reasons, first succulent food for the cow is indispensible to successful dairying; second, it is altogether likely that a larger proportion of the protein is utilized in green feed or silage than in cured hay. Protein is protein wherever we find it, but protein in straw is perhaps less valuable to the feeder than the same amount of protein in silage. The energy required to digest the protein in straw would perhaps be more than the protein itself would be capable of imparting.

"Silage is an important factor in a food ration for the cow. Corn is conceded to be the best plant for this work so far as the ease with which it is preserved is concerned. Corn silage, however, is comparatively poor in digestible protein, containing only from .8 to 1.3 per cent, while clover silage contains 2 per cent.

"Carbohydrates being abundantly supplied by ordinary farm crops, protein then is the important factor with which dairymen are concerned. The value of this in farm crops is governed by the cost of this food element in commercial feed stuffs. The aim of the dairy farmer should be to grow crops which will furnish the maximum amount of protein. Even when this is done supplementation of home-grown crops with concentrated feed stuffs will often be found necessary. It is in the purchase of these commercial feed stuffs where mistakes are frequently made. These mistakes, however, can easily be obviated if the dairyman will take the trouble to consult the feed tables so freely published in agricultural works. When commercial feed stuffs like bran, oilmeal and middlings are to be purchased, the ration should be compounded from the foods which will furnish the proper components at the lowest cost. It may be necessary in the interest of economy to change the component parts of a ration often to conform with fluctuations in the market value of these feeds. As an example it is estimated that when bran is selling for $16 per ton, oilmeal is worth $35 per ton. Thus it will be seen that the intending purchaser should carefully scan the market price of feed stuff before compounding the ration for his cows.

Regulation of Grain Feed.

"The amount of grain feed should be governed somewhat by the price of dairy products. When dairy products are high the increased cost of liberal feeding of grain will be justified, but with dairy products low, liberal feeding of expensive grain may mean financial ruin, for there is a limit to which grain may be fed for profitable results.

"Ordinarily, 10 pounds of concentrated feed per day to an average sized dairy cow in full flow of milk will be found sufficient. When the quantities of grain fed exceeds this amount the cost of production is seldom justified by the increased amount of dairy products resulting therefrom."

R. Scott, of Milwaukie, delivered an address on "Good Roads and Modern Dairying." Mr. Scott's remarks were judicious and well received.

Ad Skyles, a creamery man of Astoria, read a carefully prepared paper on "Butter-Making From a Hand Separator."

New Officers Elected.

This afternoon the association held its business meeting. The following are the newly elected officers for the ensuing year: President, R. Scott, Milwaukie; secretary-treasurer, F. L. Kent, of Corvallis; first vice-president, Harry West, Scappoose; second vice-president, S. M. Douglas, Eugene.

President's Annual Address.

The annual address of President Thomas Paulsen, of Garden Home, was delivered this afternoon. He said in part:

"I am pleased to state that after many discouragements and backsets our association has at last, as shown by the success of the two previous annual meetings, developed into one of great usefulness and importance, not only to the dairymen of the state, but also to the people of Oregon. It is an undisputed fact, although not always acknowledged or appreciated by other classes, that whatever helps the farmer and enables him to prosper, also makes the masses more prosperous. Without prosperity on the farm, the merchant, mechanic, laborer and even the professional man suffers. Successful agriculture is the basis of all. For some reason, not yet fully explained, grain growing in the western part of our state has not added anything of late to the prosperity of the farmer. Dairying, however, has. The quality of our dairy products has been improved, and the quantity greatly increased.

"Our State Dairy Commissioner, in his report for 1900, estimates that Oregon produced 5,000,000 pounds of butter and 1,000,000 pounds of cheese. However, the average value of butter has decreased more than 25 per cent during the last 20 years, despite the fact that the population of the state has increased about 55 per cent and the number of cows only about 27 per cent. The principal cause of this decrease in the value of our butter is, without doubt, the fraudulent and unjust competition of imitation butter, or oleomargarine. The output of oleomargarine has increased enormously. I herewith submit a statement giving the average price of butter during the last 20 years, as well as the average money return per year for each 200-pound butter cow:

EPOCH OF FIVE YEARS FROM	Average price best butter, per pound (cents)	Average butter cow (lbs. butter)	Average annual value product per cow (dollars)	Average number of cows in United States	Average oleomargarine product per year (pounds)	No. people per cow in United States	Average oleomargarine product per year (pounds)
1880 to 1885	29.33	458	60	12,726,835	4.50		*
1885 to 1890	26.23	52	60	14,563,244	4.00	30,200,618	
1890 to 1895	24.09	48	18	16,260,061	4.80	59,314,248	
1895 to 1900	19.24	38	48	16,088,888	5.33	67,717,000	

*Very little; no record.

"There is no doubt but what the production of oleomargarine will increase in a like proportion as long as the sale of it is permitted under conditions which enables it to be sold as butter. There is only one way to stop this, and that is by National and state legislation making it unprofitable to color oleomargarine yellow, in imitation of butter. A bill known as the Grout bill, which has already passed the House of Congress by a large majority, and is now before the Senate, will accomplish this. It was only through organized and conserted action of the different state dairy associations and the efficient work of the National Dairy Union that this measure was passed by the House of Congress in its present form. Similar action and energy is necessary to push it through the Senate. A good deal of work has already been done in this direction; but more remains to be done. Let it not be said that the dairymen of Oregon were remiss in this duty. Write to your Senators, get up petitions to be signed by the patrons of your creamery. Not only the dairymen, every farmer and every business man should sign these petitions.

"In my opinion there is no measure before Congress at this time of more direct benefit to the farmers of Oregon, and especially those of the western part of our state, than the Grout bill.

"Certainly, we should improve our farms so as to enable them to carry more stock, and our dairy herds, so we will receive better returns for the products of the farm fed to them; but unless we can be protected against fraudulent and unjust competition, even this will not save us from serious financial loss. Our state dairy law should also be amended prohibiting the sale of oleomargarine, colored yellow in imitation of butter, as well as to make it more effective in other ways. Cheese should be sold only when properly marked to show its quality. A legislative committee, with our State Dairy Commissioner as a member, should be created at this meeting by our association. It may be said by some that I have laid too much stress on legislation to help us, but if Oregon had no dairy law the sale of oleomargarine in this state would amount to many thousand pounds each year. Every dollar paid for it is lost to the people of our state, not taking into account the injury and loss to the consumer."

This was followed by an able paper on "Is Dairying Profitable?" by T. S. Townsend, of Portland.

Resolutions Adopted.

The following resolutions were read and adopted by the association:

"Whereas, the present system of selling butter put up in short-weight rolls seriously interferes with the marketing of Oregon butter in outside markets; be it

"Resolved, That a committee of three be appointed by the president of this association to confer with the commission merchants and butter dealers of Portland for the purpose of bringing about a change from the present system of selling by the roll to that of selling by weight.

"Whereas, the common practice on the part of express companies in Portland of conveying packages containing butter in wagons in which coops of poultry, carcasses of animals, etc., are loaded above the packages of butter, is the occasion of much damage to the quality of butter, be it

"Resolved, That the committee appointed to confer with the commission merchants relative to short-weight rolls be instructed to confer with the express companies and induce them, if possible, to convey butter only in wagons which contain no article which could injure the quality of the butter."

"Resolved, That we respectfully ask the Legislature of Oregon to make an annual appropriation of $250 for the benefit of the Oregon Dairymen's Association, to be used in publishing its proceedings and disseminating dairy information.

"Resolved, That this association desires to express its heartfelt appreciation for the courtesies extended to its individual members during this convention, and for the valuable assistance rendered by the Mayor, committees, citizens and residents of Hillsboro and Washington County, in making this meeting a decided success.

"Resolved, The association also desires to cordially thank the Southern Pacific Company, and the press of Hillsboro for special courtesies."

The newly elected president announced the following committees:

To confer with commission men and express companies—T. S. Townsend, G. W. Weatherly and A. B. Braddick, of Portland.

Legislation—J. W. Bailey, Food and Dairy Commissioner; D. H. Looney, of Jefferson; G. W. Weeks, of Salem; William Schulmerich, of Farmington, and Thomas Froman, of Albany.

The session was closed with an address by Hon. W. N. Barrett, of this city, "How a Creamery Will Benefit Hillsboro and Vicinity."

Greatest Sea Depth Known.

The greatest sea depth known to man is in the North Atlantic Ocean, midway between the island of Tristan da Cunha and the mouth of the Rio de la Plata, the bottom being here reached at a depth of 40,230 feet, or eight and three-quarter miles.

The World's Longest Tunnel.

The longest tunnel in the world is that of Saint Gothard, on the line of the railroad between Milan and Lucerne. It is nine and a quarter miles in length and cost over $45,000,000.

Latent Life in a Codfish Roe.

The roe of the codfish contains more latent living creatures than the whole human population of the globe.

Arctic Flowers.

In the arctic region there are 762 varieties of flowers, and in color they are either white or yellow.

The Means and the End.

STRATHMORE'S striker was a superior article in every way. His respect for constituted authority was as un-American as his face. He was tall and fine-looking, his English was quite as polished as Strathmore's own; and—which was of infinitely more importance—he never touched whisky and cigars, nor went on a pay-day spree. So Strathmore felt himself justified in supposing that he had murdered, or stolen, or forged, or something, at one time or another, and he shrewdly guessed that Chester was not his real name. But that was no one's concern, that he could see, and everybody knows that enlistment in the army of the United States, even more than baptism, is a new birth.

Throughout the department Strathmore was known by the striker he kept. This had its disadvantages, but the advantages outweighed. No one could have realized this better than Strathmore himself, and yet sometimes he was moved in the bosom of the mess, to complain. "It is telling on me," he would insist; "I am slowly breaking down under the strain. I came across something in a French book the other day about how few masters are worthy to be valets. That's what I am striving to be, and the failure is telling upon me. They used to," he explained complacently, "they used to say—when my name was mentioned from Dan to Beersheba—'Strathmore, Strathmore of the 'steenth. Big, good-looking chap'" (Strathmore had picked up Chester's manner of speech), "'one of the Strathmores of Boston, isn't he? Now it's 'Strathmore? That's the chap Chester's striking for?' Oh! yes; I think I'll send Chester back to the troop."

Which, of course, he never did. Apart from the fact that he could never have done without him, he could not have had the heart.

Chester had been as good a soldier as he was a striker, but he had languished under barrack rule. Exactly for the reason that he never said so, it was plain that he had been used to better things. It was so plain that Strathmore would never have thought of suggesting to him to become a body-servant, had not Chester himself—when a desperado's bullet had left the position vacant—volunteered. As a striker Chester had many little luxuries that he had lacked before—his own room, his own bath-tub, and the run of his master's small but choice library. With the help of draperies and blankets that Strathmore let him have, and with that of some potted plants he managed upon his own account, he transformed the room into quite a sybaritic retreat, and his literary discrimination was a thing to wonder at. He tacked up colored supplements of the London Christmas papers, and there was a photograph—just one—on his mantel-piece. It was of a woman who had soft eyes and hair and a lovely mouth. Strathmore ventured to ask who it was, one day, and Chester told him that it was "an Englishwoman, sir."

Now, this was in Texas, in the early days shortly after the war, in the State of the Lone Star's palmiest time. There was much drinking in the land, and much poker, as well, no pious general having as yet arisen to bid gambling cease. There was also some shooting, but of unattached women there were sadly few, and those that there were, were, generally, not very nice. This condition of affairs led to a good many unfortunate things. Any man prefers even a second-rate woman to none at all, and any man—being deprived of a standard of comparison for a length of time will come to think that an exceedingly poor article is superior enough, after all.

That was what happened to Strathmore. He should have known better, because his youth had been spent among women who were lovely in every way; but the memory of man is short—and he was lonesome. There should be provision for this in the regulations. When a man gets any of the ills that frontier service is apt to induce, they bundle him off back East on a sick leave; yet when—which is infinitely more prejudicial to the standing of the service—he reaches the stage of loneliness where he would marry the Witch of Endor herself rather than continue to be alone, there is no one to indorse his application to be sent somewhere where he can find the proper sort of girl.

Strathmore had been in the wilderness a matter of five years, and he was gradually, very gradually, lapsing from civilization. The first intimation of this that Chester had was that the lieutenant made unnecessarily frequent calls at a ranch-house some ten miles from the reservation. Chester knew that a girl lived there—a dreadful girl, who had a plumply pretty figure and face, but whose speech was a thing to shudder at, and whose name, besides being Halloran, was Mamie Pearle. He also knew that if that were not enough to set Strathmore's teeth on edge, he must be in a very bad way.

All this worried Chester a great deal. Frequent contemplation of his one photograph had furnished him with the standard of comparison which Strathmore lacked, and he could see what the outcome of things as they were going was bound to be. He explained it to the photograph, standing before the mantel-piece with his hands jammed deep in his trousers pockets and a pucker on his brow, which was fair to the line of the cap and quite crimson from there down. "If he marries that freckled-face Halloran girl," he said, "he'll want to shoot himself and her the first time he goes East"—Chester cherished a cynical kind of regret that he hadn't done as much himself some time before—"or he'll compromise and take to drink instead. No," he nodded his head decisively, "he shall not marry Mamie Pearle, not"—he looked at the picture a long time—"not if I have to marry her myself. Which heaven forefend!"

The next afternoon he found Strathmore in the sitting-room and proffered a most unprecedented request. "I shall like, sir," he said, "to be given a furlough for a week." Strathmore considered and frowned. "What'll become of me, Chester?" he asked plaintively; "what will I do?"

"O'Toole has promised to take my place, sir. He was Captain Lacy's striker for several years, and he knows his duties, sir."

Strathmore sighed. "Very good," he agreed, with sufficiently poor grace, "I expect I'll make out somehow. Put in your application with the morning report."

Chester went away, feeling contemptible and small, and Strathmore sat and reflected dismally that it was emergencies of this sort that drove a man to matrimony. He ought to have realized that when a man marries because he thinks the woman can be of use to him, rather than he to her, he is making a grave mistake. But he fancied the vague dissatisfaction with his present lot was the yearning of affection, and believed more than ever that he cared for Miss Halloran quite a creditable deal. Before Chester left the next day he stood in front of the photograph again. "She'll wear curl-papers and his forage-cap and cape," he reflected aloud. That was his notion of the point beyond which vulgarity could not go. "It's a devilish contemptible business, I know it is. But then—my future's all behind me; and his is all ahead. He's only a boy. He has all sorts of pull"—what a striker does not know about his master is not worth considering at all—"he will be able to get anything he asks for in Washington. Not," he mused, "that the American army offers much for a young man just now. But he can get all it can give. If he behaves himself and marries the right kind—or better yet, doesn't marry at all—he may rise to the soaring height of an attaché-ship. All things are possible with pull."

He stopped and bent down to knock the ashes from his brier-pipe into the fire-place. Then he took the photograph in his hand and started to put it in the grip that lay on his bunk. But he changed his mind and tucked it into the tray of his trunk instead. And he gave it a last look as he closed down the lid. "In which case," he finished, as he turned the key, "he would be very likely to meet you."

A hunting leave is only a week long. But a great deal can happen in a week to a soldier who has cut loose and is accountable to no one, or to a lieutenant madly determined to become just the other way. What happened to Strathmore was, in sum, this:

The day after O'Toole took charge he rode over to the Halloran ranch, and when he came back he was engaged to marry Mamie Pearle. When it was done and he sat down to think, he found that he was not radiantly happy as he had expected to be. But the way the sitting-room had been dusted that morning had disgusted him, once and for all, with single life. The next day he was officer of the day and couldn't leave the post. The day after that he had a cold which he had caught making his rounds, and it confined him to the house.

As for Chester, the way he put in his time never did become quite clear. But for a period of six days there was a strange Englishman in a town some fifteen miles the other side of the Halloran ranch; some twenty-five miles that is, or more, from the post. It was a mud town, and its hotel was as bad as its reputation, but the Englishman stayed there. He wore a conspicuous suit of clothes, and spent money ostentatiously. He let it be understood that his name was Lovatt, and that he was a lord; also, that he was traveling through the West, and might, if he fancied the country, buy a ranch. It was probably with that end in view that he rode almost at once to the Halloran place and explained to the haciendado that he would like to be shown how a ranch was run. He met Miss Halloran, and her father told him that she was engaged to a lieutenant at the neighboring post, but that a severe cold was confining the officer to his house. He expressed a wish that Lovatt might meet the lieutenant some day, and Lovatt hoped that he would. It was possibly in this hope that he called at the ranch for six successive days, but always—had he known it—at an hour when it was quite unlikely that any one would be coming over from the post. After that they saw him no more.

On the evening of the seventh day Chester was in charge of Strathmore's quarters again. Strathmore was recovering from the cold, and he told Chester that he had missed him profanely much. Everything had gone wrong. He asked what the striker had been doing with his time.

Chester threw an armful of wood upon the fire, and stood up, brushing the chips from his sleeve. "Well, sir," he answered, "I have been getting engaged."

Strathmore's jaw fell. That meant that he would have to hunt up a new striker, of course. Then he remembered Mamie Pearle. "That's rather a coincidence, Chester; so have I."

Chester's congratulation was respectful, but not so cordial as it might have been. "I shall ask your permission and the captain's to marry, sir," he said.

Strathmore accorded his own. "But I shall be sorry to lose you, Chester, very sorry. What is the girl's name?"

Chester grew red all over his nice, boyish face. He was finding out that saving another is not all heroism, necessarily. He produced a piece of paper from his pocket—a piece of flimsy, ruled, pink paper stamped with a white dove. Strathmore gave a little start. But Chester was doing this because he thought it best to deal the final blow at once, not to mince matters in the least, and he did not hesitate. He smoothed out the sheet. "That's the name, sir," he said.

Strathmore read it. It was Mamie Pearle.

"The last name," Chester explained, "is Halloran. She's the daughter of Halloran of the ranch."

"Oh!" said Strathmore, dryly. His eye had caught a misspelled assurance of enduring love. "Oh!" he repeated; "and may I ask if she knows who you are?"

Chester grew more red still. "Well"—he reflected that an entirely honest intent could never be prefixed by that Yankee word—"well, sir, I began by letting her think that my name was Lovatt—part of it really is, sir—and that I was titled and rich—which I am not—but"—he plucked up courage as he went on—"if she loves me, of course it will be all right."

Strathmore handed him back the note. "And if she doesn't."

"It—it will still be all right."

Strathmore did not try to understand. His opinion of Chester had fallen very low. As for his opinion of Mamie Pearle he realized, suddenly, that it had not dropped half so far.

* * * * * * *

It was almost retreat, on the following day, when he took to Chester's room a bundle of London papers that had just come by the stage. He cast a quick look around. "I see you've got the photograph of the girl out again," he commented.

Chester nodded, but added, with the faintest shadow on his face: "She's a married woman, sir."

"Yes?" said Strathmore, and turned to leave the room.

"Oh, lieutenant!" Chester called. Strathmore stopped. "I thought you might like to know, sir, that I'm not engaged any more."

For a full half-minute Strathmore looked into the Englishman's impenetrable blue eyes; then there came a twinkle in his own. "It seems to be another coincidence, Chester," he said, quietly, "for neither am I."—Argonaut.

BABY ALLIGATORS.

They Are Hatched Out in Job Lots in Steam-Heated Sand.

Up in the reptile-house of the Bronx zoo something unique in the way of a hatching of young alligators was on exhibition yesterday, and will be to-day just as long as the supply of saurian eggs holds out.

The young 'gators were being turned out in job lots in a large, glass-inclosed, steam-heated cage in the northwest corner of the main reptile-room. The floor is covered with warm sand, in which several dozens of alligator eggs are huddled. The eggs are about seven inches long, oblong in shape, and of a dingy, leathery white color.

About the center of the cage is a large shallow pan full of water, sunk to the level of the floor. In and about the pan are several dozen young alligators, from six inches up to ten in length, scrambling about, climbing all over each other, splashing about in the water, and seemingly happy and contented. The baby 'gators are bright blue, green, and black spotted in color. In general color and appearance they look more like lizards than anything else.

The hatching process is quite interesting. Every now and then an egg will begin to squirm and roll about. One end works more actively than the other and swells up like a mushroom head. Then it cracks and spreads out from the slit, through which a little long-pointed muzzle begins to work out. A lot of energetic wriggling, which flops the eggs about in all directions, sets the youngster free. Out he pops, and after a shake or two, by some wonderful instinct of nature, away scuttles the infant to the pan of water, into which it plunges without any fear.

Alligator, Jr., splashes about a while, and then joins his brothers and sisters, following the universal alligator habit of crawling on top of as many of his relations as he can and resting his head on the nearest back.

Mrs. Alligator was not present at the hatching. Alligator experts say that after she has laid the eggs her part of the manufacture of young 'gators is finished. She pays no more attention then to them, and confines herself, in the South, to lying low in the swamps, waiting for dogs, pigs, or tender young colored infants to wander her way. As to Alligator pere, those same experts assert that if there is one thing he likes better than another it is young alligator fresh from the shell, without any dressing. He is said to swallow them up by the dozen, and then complain because there are no more.—New York Mail and Express.

LAW AS INTERPRETED.

Annual crops raised by labor on land held by a tenant for life are held, in Noble vs. Tyler (O.), 48 L. R. A. 735, to be assets of the estate, whether severed or not at the time of his death.

Right of a stockholder to inspect books of the corporation is held, in Cincinnati Volksblatt Company vs. Hoffmeister (O.), 48 L. R. A. 732, not to depend upon the motive or purpose of the stockholder.

Lack of barriers on the side of approaches to a bridge is held, in Bell vs. Wayne (Wash.), 48 L. R. A. 644, not sufficient to make a municipality liable for injuries in case a team goes off the bank when the roadway is wide enough for two teams to pass without difficulty and the fright of a horse was the proximate cause of the accident.

A will which consists of four pages in one sheet folded lengthwise down the middle is held, in re Andrews (N. Y.), 48 L. R. A. 662, not to be subscribed at the end as required by statute, where the signature is on the second page after a portion of the will, while there is another portion on the third page without anything to connect it with that part which is above the signature.

A camp-meeting association which has made perpetual leases of cottages on its grounds without any restrictions, except that they are "subject to such rules and regulations as the association may from time to time adopt," and which also owns a store on the grounds which it has leased for a rental, is held, in Northport Wesleyan Grove Camp-Meeting Association vs. Perkins (Me.), 48 L. R. A. 272, to have no power to impose a revenue tax on the business of taking orders for fruit, groceries and provisions from cottagers upon the grounds of the association.

Similitude.

Jackson—The baby's getting more like its mother every day.

Johnson—That so?

Jackson—Yes; it's learning to talk.—Indianapolis Sun.