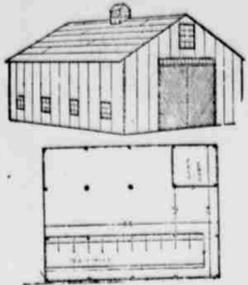




BARN FOR SMALL DAIRY FARM. One Which Will Accommodate Ten to Twelve Cows.

The farm barn here shown is intended to accommodate ten or twelve dairy cows together with the horses necessary for a moderate sized farm. In size it is 44 feet long by 34 feet



Barn and Ground Plan.

wide. The main floor is 12 feet wide and the height of posts 18 feet, permitting loads of hay to be driven in. A basement about six feet in depth can be utilized to store the manure and to provide shelter for hogs. The frame can be made of eight inch square hemlock timbers, the floor of three inch planks. This style of building should be suitable for many parts where the number of live stock is limited.

SCIENCE OF MILKING CLEAN. What Prof. J. L. Hillis, of Vermont Experiment Station, Has to Say.

It is well known that the average milker gets less milk than he who does a thorough job, that incomplete milking means not only direct but indirect loss, not only an immediate lessening of the fat yield, but tends toward drying the cow. A Danish scientist has recently developed a special system of udder manipulation...

Trials of the scheme made at the Wisconsin and New York stations afforded a daily average increase per cow of a pound of milk and two ounces of butter. The after milk was very rich in fat, testing above ten per cent. This after milking takes not to exceed five minutes' time, often only two or three minutes. The two ounces of butter may be held at a low estimate to be worth two cents. This would be a fair pay for five minutes' work, 24 cents an hour, and the skim milk thrown in. Not only is more milk and butter made, but the secretion is stimulated and the lactation period prolonged. It may be remarked, however, that the difference in milk and butter yields between this method and careful stripping are not great. This Danish method emphasizes more perhaps than has hitherto been done, the actual and potential losses due to incomplete milking.

TO HOLD A GATE OPEN.

Brace Which Can Be Swung Out of the Way When Not in Use.

The illustration shows a very handy method which I invented to hold a swing gate open at any width, writes a correspondent of Orange Judd Farmer. Most gates are hung so they swing upward a little in opening, to clear snow, grass, etc. They swing shut of their own accord, hence something to hold the gate open at any place while driving through or letting out stock is a necessity.

To meet this need I devised the brace shown herewith. It is simply a piece of wood 1x2 inches and a little longer than half the height of the gate. One end is fastened by a spike passed through it and driven into the edge of the vertical board at the end of the gate, or it may be put on with a hinge. The dotted lines show its position when not in use, it being swung upward and snapped beneath a spring nailed to the top of the gate.

Dairy Facts.

Don't overdo the milking tube act. It is impossible for a cow to be two opposite things, a dairy cow of the highest type and a beef animal of the greatest possible value. The control of moisture in butter is not possible without the control of churning temperatures. Ice and thermometers are necessary for the making of butter under proper conditions. The New South Wales Farmer and Settler tells of a New Zealand farmer who holds the record as a milker. For a considerable time he and his wife milked 12 cows night and morning, without keeping any hired help, their family consisting of one small child. He is told that the farmer and his wife were healthy and robust—which they need be—and fine specimens of humanity.

USE OF THE RABCOCK TESTER.

The Care Which Must Be Taken to Secure Accurate Results.

The use of the Babcock test is becoming more and more common by dairy men, who have now got it fully into their heads that nearly all dairies have cows who are eating their heads off and should be promptly got rid of. If in a dairy of thirty cows, there are ten whose milk does not pay for their feed, it is evident that the other twenty must not only support the dairyman, but pay part of the cost of maintaining the ten delinquents, and, therefore, the net income of the dairy would be larger if the ten were off the place. A very poor cow, of course, is very easily detected and disposed of, but there is no way of discovering those along the border line of profit and loss except by weighing the milk and ascertaining the fat content. The Babcock test will give the fat content accurately, if the testing is well done, but sometimes it is not well done, and the result is incorrect. We have printed the directions for manipulating the tester a good many times, but Mrs. Minna E. Sherman states a few common difficulties so clearly that we reprint what she says, as follows: Simple as the Babcock testing appears, by careless handling the fat rising in the necks of the test bottles is clouded or mixed with other matter. To test correctly, so as to have the fat free from foreign mixtures, is easily acquired by taking a quart of milk, shaking it up and filling the test bottles, running it through and reading the per cent of butter fat. At first, the readings may vary but practice until each sample reads alike. When practice has made perfect it is safe to infer that the readings from different samples will be correct.

A few of the common causes of incorrect readings are air bubbles, black floating particles, ashes and cheesy matter in the column of butter fat. The air bubbles in the fat are pricked by dropping onto the fat a high proof drops of alcohol, using a high proof spirits from the bottle of grain alcohol used in the spirit lamp. The alcohol lays on top of the fat and the division line is distinct at first, after a short time there is a slight emulsifying of the fat, so the reading is made promptly to insure its correctness. In cloudy tests where the separation is not distinct between the black mass and the fat it can often be cleared by letting the bottles grow cold and then warming them up in hot water, where the separation will be found to be completed.

White ashes appearing among the fat, or above or below it, indicates too little or too weak acid. In buying acid from the supply houses I have never received a carboy of acid that became so in the carboy by atmospheric moisture—a careless butter-maker during a spell of fine fog left the cork out for a week. I found that the acid would not cut the casein, but by adding a trifle over measure it came all right. A little experience will show the color that the milk should turn under the acid and its freedom from lumps that the acid is not too weak. "One thorn of experience is worth a whole wilderness of warning." The acid used has a specific gravity of 1.82 to 1.83 at 60 degrees Fahrenheit. A white curdy or cheesy substance is often due to not thoroughly mixing the milk and acid in the test bottles when first filled. It is also caused by having the milk too cold—below 60 degrees—when the acid does not give off enough heat in the mixing with the milk to burn out all the casein.

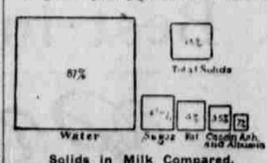
When the fat shows up a mass of black, then the heat has been too great. This may be caused by careless pouring of the acid into the center of milk in the bottle instead of sliding it gently down the neck and along the sides to the bottom. More care in filling will obviate this. In Fresno during the summer time the milk in the sample bottles has to be chilled by standing them in cold water or else the test will be blanketed. The milk tests the clearest if it is at a temperature of 60 to 65 degrees, and the acid at the same temperature.

When there is a dirty-colored foam on the top of the fat in the test bottle, it indicates that the water used in filling the bottles up to reading is too hard, and boiled, or, better yet, the distilled water from the engine, must be used to fill up the bottles. The instructions that come with the Babcock tester direct running the machine two minutes, then filling the bottles with hot water and running one minute more. I presume this time is taken from the time the machine attains full speed. I find it simpler to look at the clock as I turn on the steam, and when the bottles have twirled ten minutes, turn off the steam and put on the break slowly, then fill the bottles with hot water and let on the steam for five minutes more.

COMPOSITION OF MILK.

Preparation of Solids to the Water Content.

A given quantity of milk is said to



contain 87 per cent water, and 13 per cent total solids. The latter is divided into sugar, 4.80 per cent; fat, four per cent; casein and albumin, 3.5 per cent, and ash, seven per cent. The diagram shows the comparative relations of the various chemical factors.

Manure Bushes in Fall. For best results currant bushes should be well mowed in the fall and the manure plowed in so that the injured rootlets may have time during the winter months to replenish themselves. Plow quite shallow next to the bushes. Give shallow cultivation early in spring and at intervals during the summer.

JESUS BEFORE CAIAPHAS

Sunday School Lesson for Nov. 15, 1906. Specially Prepared for This Paper.

LESSON TEXT.—Matt. 26:57-68. Memory verses, 67, 68. GOLDEN TEXT.—"He is despised and rejected of men."—Isaiah 53:3.

TIME.—The lesson covers a period of several hours, from some time between one and two o'clock Friday morning till after sunrise April 7, A. D. 30.

PLACE.—The palace of the high priest and the hall of the Sanhedrin at Jerusalem.

Comment and Suggestive Thought. V. 57. "They that had laid hold." The Roman soldiers, who still had the arrested man in charge. "Led him to Caiaphas." To the apartment of the acting high-priest where, instead of in its usual hall, a hastily called meeting of the Sanhedrin was held. "Scribes and elders were assembled." Chief priests also were there, as Mark mentions (14:53).

V. 58. "Peter followed him afar off." Peter's trouble came through his following afar off. "Sat with the servants" (or officers). Stood or sat among them as they clustered about the fire in the open court, whence they could see what was going on in the council chamber.

V. 59. "Chief priests . . . sought false witness." It was the religious leaders of the people who were prime movers in the trial of Jesus. But what they sought was "witness against Jesus to put him to death," and they had to seek far for witness against One who ever "went about doing good." Then, as now, only those who knew him not could say anything against him.

V. 60. "Found none." It was no easy matter to agree upon a charge against the blameless One. "Many false witnesses came." Unscrupulous persons, by threats or money, could be brought to give such testimony as the judges sought. But the trouble was, the accounts of such men did not agree with one another. Jewish law required that at least two witnesses must agree before one could be convicted of capital offense (Deut. 17:6).

V. 61. "Said, I am able to destroy." etc. Read what Jesus had said early in his ministry (John 2:19-21), and note how its whole spirit was altered by this report.

V. 62. "The high priest arose." Thus far every effort had utterly failed to bring to light anything against Jesus. Caiaphas, forgetting his official dignity, and leaving his official seat, stepped toward the Accused, exasperated by his silence, and determined to make him criminate himself. "Answerest thou nothing?" Jesus had maintained unbroken silence. He "endured the contradiction of sinners against himself" without one word of self-defense. Here, as elsewhere, he is our great example.

V. 63. "Jesus held his peace." For perhaps an hour he listened in silence, fulfilling Isa. 53:7. "The high priest answered." He responded to the situation into which he was forced by the persistent silence of Jesus. "I adjure thee by the living God." This was the ordinary formula of administering an oath. The action was illegal and Jesus at first protested against it (Luke 22:67-70). "Tell us whether thou be the Christ, the Son of God." The high priest asked Jesus under oath to testify concerning his claims, first, as to his Messianic vocation, and second, as to his peculiar relation to the heavenly Father.

V. 64. "Thou hast said." That is, you have stated the truth. This was equivalent to saying, as Mark renders it, "I am." "Nevertheless." More than this. "Hereafter shall ye see," etc. This would call to mind a well-known prophecy concerning the Messiah (Dan. 7:13, 14).

V. 65. "Rent his clothes." This had been originally an involuntary expression of grief, but it had now become a formal act, when one was found guilty of blasphemy.

V. 66. "What think ye?" Caiaphas appeals to the assembled Sanhedrin for a verdict. "He is guilty of death." The verdict "guilty" was unanimous. He was guilty of blasphemy, hence worthy of death (Lev. 24:16). The council then adjourned to meet at day-break. During the interim Jesus was delivered to the care of soldiers and servants of the Sanhedrin, who subjected him to every form of indignity which their brutal instincts could devise.

Vs. 67, 68. "Buffeted him." Struck him with their fists. "Prophecy unto us." They first blindfolded him (Luke 22:64), then called upon him to display his supernatural power by naming the man who struck him.

Practical Points. V. 58. We run into danger as soon as we permit the slightest separation between ourselves and Jesus.—John 15:4, 5.

V. 59. The world to-day seeks witness of Jesus in the lives of his professed followers.—Acts 1:8.

V. 62. A righteous character is the unimpeachable answer to calumny.—1 Pet. 3:16.

V. 63. Let us look to Christ for grace to bear reproach in silence.—Heb. 12:3.

V. 64. There come times when to remain silent would be treason to the truth.—1 Pet. 3:15.

"America" in Many Tongues. At the Fourth of July celebration in Manila, "America" was sung (sometimes in their own language) by Filipinos, Japanese, Chinese, Indians, Germans, French, Spanish, English, Italians, Australians and Americans.

Taken as directed, it becomes the greatest curative agent for the relief of suffering humanity ever devised. Such is Hollister's Rocky Mountain Tea. 35 Cents. Tea or Tablets. GARRETT & AYRES.

A jeweler, no matter how dishonest would not steal the jewels in a watch, for they are valueless. They cost only 10 cents apiece. In antique watches the jewels were often costly. In modern watches they are never worth more than \$10 a gross.

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ED. PINAUD'S HAIR TONIC (EAU DE GUININE). LILLIAN RUSSELL, the beautiful actress, says: "Without question, an indispensable adjunct to a lady's toilet. Exceedingly meritorious in preserving the hair and causing it to retain its lustre." You can make your hair beautiful and improve your personal appearance by using ED. PINAUD'S HAIR TONIC every day. It cures dandruff and stops falling hair, because it goes to the root of the trouble. FREE! A sample bottle of ED. PINAUD'S HAIR TONIC (3 applications) for 10 cents to pay postage and packing. ED. PINAUD'S LILAC VEGETAL. An exquisite perfume for the handkerchief, stomacher and bath. Used by women of fashion in Paris and New York. Send 10 cents (to pay postage and packing) for a free sample bottle containing enough Lilac Vegetal Extract for 10 applications. Write to-day to ED. PINAUD'S American Offices, ED. PINAUD BUILDING, NEW YORK CITY. Ask your dealer for ED. PINAUD'S HAIR TONIC and LILAC VEGETAL.

INDIGESTION A CRIME. The Coming Telephone. Don't You Want a Keen Appetite and Perfect Health Once More. It is a positive crime to suffer with the ills of indigestion, such as headache, backache, sleeplessness, nausea, and distress after eating, with despondency and nervousness, now that the guaranteed Mi-o-na stomach tablets can be obtained from the W. R. Smith Co. Use this remedy, and keep appetite, vigorous digestion, strong heart action, pure blood, nerves of steel and natural strength and health will be restored to you quickly. Mi-o-na is entirely different from all other remedies that are recommended for the cure of indigestion, for it strengthens all the digestive organs and is not a mere digestive. Ask The W. R. Smith Co. to show you the guarantee they give with every 50 cent box of Mi-o-na. The remedy will not cost a penny unless it cures. "Did the old man settle anything on his daughter and her husband when they were married?" "Yes, indeed, he did; he settled himself."—Baltimore American. Mrs. Hoyle—There is one thing that puzzles me. Mrs. Doyle—What is that? Mrs. Hoyle—I can understand how people can marry in haste, but I can't understand how they can repeat at leisure.—Brooklyn Life.

A BEGGAR OF KHIVA. Pathetic Figure Appealed to the Traveler from the East.

Once in an open square, where the dust pall forbade sight or breath, I directed my steps toward the source of a throbbing roll that ceaselessly wove itself in with the noise of voices, and the patter of unshod feet of beasts. As I neared it the noise became detached from the hubbub, a distinct and individual thing, which insistently claimed attention and made the very notes in the air dance to time. Under a willow tree, by the water ditch that defined the square, sat a bent old man, unbelievably ragged. So torn were his many khaltas that they did not seem like constructed garments at all, but strings of tatters and tags collected and hung on his fat, weak body. His head was bent on his breast, and his eyes were half closed. On his stomach was a wooden bowl, with a skin drumhead stretched across it, and on this drumhead he beat incessantly with his knuckles and his fist. The motion was so automatic and deadly regular in its recurrent changes that it seemed almost as if he were a clockwork figure set at the edge of the busy market to record the passage of time. I flung some copper on the brass begging tray by his side and went off, unconsciously adjusting my steps to his beating. He made the trivial barter and the driving of laden animals seem rapid and futile, and my bit of charity sickened me. It was as if I had happened along and patted Socrates on the back—Century.

ON LOOKOUT FOR HEIRLOOMS. Articles for Which Pawnbrokers Will Pay Good Price.

A Frenchman of undoubted "blue" blood got stranded in New York. His only possession that could be converted into cash was a ring with an authenticated historic value. He consulted friends as to its most profitable disposition. "Show it to collectors interested in such things," they advised. "Some one will probably give you a good price for it." "Take it to a pawnbroker," one wise man suggested. "He will give you twice as much as the average collector." The Frenchman accepted the advice of all; he visited both collectors and pawnbrokers, but he sold to a pawnbroker. "I knew you would," commented the man who knew. "There are no people in town who have such a keen scent for heirlooms and other articles with a history as pawnbrokers. They are always on the lookout for such things and they are willing to pay for the romantic associations as well as for the intrinsic value. The average man of that calling is not supposed to have the bump of sentiment very highly developed, but he realizes the possibilities of such a pledge should it remain in his possession unredempted, and he is willing to secure it at the best possible terms to the customer." Attorney—Have you formed any opinion on this case? Prospective Juror—No, sir. Attorney—After the evidence on both sides is all in, do you think you will be able to form any opinion? Prospective Juror—No, sir. Attorney—Good! You'll do.—Ohio Journal.

TURNED HIM INTO A FREAK. Young Man's Unfortunate Experience With a "Hair Wash."

There is a young resident of the upper western section of the town who is blessed with dignity beyond his years, and with a sister whose years, albeit these number but 24, are beyond her common sense, says the New York Press. One night, having an extra guest, and the sister being away at sea, Blinks occupied his sister's room for the night. Discovering on her toilet table a bottle marked "hair wash," and thinking that perhaps his own not over luxuriant crop required attention, he applied the contents of the bottle liberally to his scalp locks, rubbing it in with thoroughness. The following day, two hours before any business house opened its doors, an individual with a slouch hat pulled down over his ears and having all the signs of dementia went speeding down town on the subway express. Wild-eyed and incoherent he sought the establishment of one of the best hair-dressers in town. He has repeated his visit to the shop every morning since that time and the specialist is slowly removing by occult processes known to his trade, the brilliant gold streaks which were so noticeable amid the jetty black of the remainder of the coiffure.

THEN HE STOPPED LAUGHING. Wife's Simple Question Evidently Hard One to Answer.

Five young men went into a store to buy a hat each. Seeing they were in a joking mood, the clerk said, "Are you married?" They each said, "Yes." "Then I'll give a hat to the one who can truthfully say he has not kissed any other woman but his own wife since he was married." "Hand over a hat," said one of the party. "I've won it." "When were you married?" "Yesterday," was the reply, and the hat was handed over. One of the others was laughing heartily whilst telling his wife the joke, but suddenly pulled up when she said: "I say, John, how was it you didn't bring one?"

The Ghost of Trichinopoly. The ghost may be seen on most nights between the hours of 11 and 2 on the Tennor road. She is a most beautiful creature who walks out of the river with her clothes all wet, water dripping from her long silken tresses, and she carries in her right hand—no, not a piece of soap nor an antiquated toothbrush—merely a brass lotah. If any person attempts to approach her she merely points the forefinger of her left hand at him and he dies! The ghost was originally one of the temple dancing girls famous all over the town for her striking beauty. The temple authorities raised objections to her bathing there and ordered her to creep out quietly at 11 every night and bathe in the river at Tennor where no one would see her. This she did for some time, but another temple girl gave away the secret, with the result that the next night when bathing she heard the tramp of many feet and was rushing out to see what was the matter was accidentally knocked into the river and drowned by the crowd of men rushing to the riverside to see her.—Madras Mail.

For fine tailoring call on Pal Thielen, West Main street.