

METAL ROOFS REDUCE FIRE HAZARDS ON THE FARM

It is generally accepted that of the fire hazards to which farm buildings are exposed, and which may be classified as external in nature, lightning is the most important, with wind-borne burning brands occupying second place. Of less importance are the hazards of fire communication by radiation from adjacent fires, and communication with other fires by connecting links of combustible materials. Causes of fire which may be classified as internal in origin will not be considered here, as they are seldom, if ever, influenced by the materials and construction of roofs.

When a building is roofed with metal sheets in electrical communication with one another, and the roof as a whole is connected by a conductor, adequate in carrying capacity, and with joints of permanently low resistance to a good earth contact, such a roof constitutes an effective electrostatic shield over the entire top of a building, and there is reason to believe that it constitutes the most effective lightning protection now available and economically practicable for buildings of ordinary construction.

With respect to burning brands from other fires, particles of soot from chimneys burning out, etc., it may be said first of all that sheet steel or iron is completely and absolutely incombustible, a distinction shared by no other roofing material of comparable cost. It may be pointed out further that a sheet metal roof properly applied has no cracks or crevices through which sparks may be driven by the wind.

SHEET METAL FOR ROOFS

As regards the capacity of sheet metal roofing in protecting underlying wood from ignition by heat radiated from adjacent fires, it would be easy to get into a theoretical discussion of the relative parts played by reflection, convection, conduction, and radiation from both inner and outer surfaces. Recent tests of sheet metal clad buildings of the garage type indicate that sheet metal gives unusual protection. In one case a sheet steel wall was placed two feet from the garage being tested. Oil-soaked waste hung on the inside of this sheet steel wall did not even smoulder. This would indicate that sheet metal has a relatively high value in protecting underlying wood from ignition temperatures.

REDUCE THE HAZARD

Another element entering into the sum total of the influence of roofing on farmstead fire hazards is the extent, if any, to which a roof can confine a fire, regardless of its origin, to the building in which it starts and reduce the hazard to adjacent buildings. In this respect sheet steel and iron are in a class by themselves. Not only are they completely incombustible, but they are inflexible, non-fragile, and capable of retaining to a considerable degree their mechanical strength at the highest temperatures encountered in an ordinary building fire. As contrasted with the shower of sparks and embers, and the increased intensity of burning which commonly occurs when a combustible roof collapses, a sheet metal roof, particularly if of the locked seam type, tends to hold together and act as a blanket, both before and after it falls, a characteristic shared in a similar degree by no other practicable building material.

In conclusion, it may be said that the combination of lightning protection, spark or ember resistance, resistance to radiant heat, and a relatively high ability to resist the spread of fire within should be given due weight, together with other characteristics going to make up the desirability of a roofing material, by agricultural engineers when their advice is sought as to roofing practice.

Farmers Must Plan Ahead

Once again the farmer is mapping out his work for the year, planning his crops, deciding what fields shall go into this crop or that, how many acres of this crop or that he shall plant. As a general proposition, it may be laid down that the better the farming has been done, the more nearly all these matters have already been decided for him by his farming of the past year and the years before that. In a word, if he had been doing really careful and systematic farming, the crops that will go on most of his fields, the acreages of most of his crops, are even now pretty well determined for him.

There is something wrong with his farming program if in laying out this year's crops he feels that he need give heed only to the returns from this year's labors. If he does not take into consideration as well the effect of this year's cropping upon the fertility of his farm and its ability to produce next year's crops and the years after, there is something wrong with his method of planning. In such a case, he is trying to make a one-year business out of what is essentially a continuing business, trying to divide from each other causes and effects that cannot be separated.

The Valentine

He sent her a box of roses red,
Pulsing with love for lady fair,
They would meet that night at the ball,
He said,
If her answer was "Yes," his rose
Should wear.
He called that day in his automobile,
His gifts were costly and rich and fine,
His stocks and bonds were of gold and steel,
And he offered all to his Valentine.
And another came in the people's car,
With a dainty book that was marked
with grace,
Fearlessly seeking his love afar,
With a love that shone in his lifted face,
Manly and tender, and honest and true,
Unafraid in the world of men,
And what could my sweet Milady do
But give him his answer there and then?

The Mission of St. Valentine

When Winter's at his coldest
And coldest,
Then cometh good Saint Valentine
To show that love is burning,
And sighing, and yearning,
And breathes upon the wintry earth
His tenderness divine.
When life is at its bleakest,
And meekest,
And weakest,
Then cometh good Saint Valentine
To show that love is rosy,
And wistful-eyed and cosy,
And breathes on every torpid heart
His tenderness divine.

Hog Grading and Culling

Hog grading is receiving less and less opposition as its value becomes better understood. The Dominion Live Stock Commissioner reports that many drovers who were at first opposed to hog grading have fallen into line and now make their purchases on a grading basis. Demonstrations in grading, the Commissioner also reports, have been the means of convincing many farmers of the suitability of the bacon hog for both the Canadian and export trade. Many farmers have also asked for assistance in the culling of the sow stock and in numerous instances culling work has been followed by community organization for the purchase of fifteen to twenty-five sows of good bacon type. There are, however, still a good many who are reluctant to be convinced that the bacon hog is the most desirable and most profitable type to raise.

Apples, Pulp or Silage

Experiments carried on by an agricultural college to find out their comparative feeding values, showed that a ton of dried-apple pomace was equal to three tons of corn, and a ton of beet pulp was equal to four of corn silage. Apple pomace was a good appetizer.

Rock salt—the kind used for making ice cream—will usually clear the slippery walk or step of ice. This is better than ashes for two reasons. It actually melts the ice, even though the weather is below freezing, and there is nothing to sweep away later. Just sprinkle the salt on the ice.

Sunday School Lesson

February 18. Making Our Homes Christian, Ephesians 5: 25 to 6: 4. Golden Text—Let us love one another; for love is of God.—1 John 4: 7.

ANALYSIS

I. THE DIFFERENCE CHRIST HAS MADE WITH RELATION TO HUSBAND AND WIFE, 5:25-33.
II. THE DIFFERENCE CHRIST HAS MADE WITH RELATION TO PARENTS AND CHILDREN, 6:1-4.

INTRODUCTION—One of the first results of the introduction of Christianity into the previously heathen world was to create a new ideal of the home. The relations of husband to wife and of parent to child in Greek heathen society had come to be very loose. There was no doubt a certain amount of natural affection even in the heathen world, but there was no reverence. Husbands often treated their wives as though they were slaves or poor beasts of burden, and children were neglected. If they were weakly, they were often left to die without pity. On the other hand, children were not brought up to honor and respect their fathers and mothers. Only among the few was there anything of the beautiful home life which we know.

With the coming of the gospel all this changed. New values came to attach to marriage and to parenthood. The home was lifted on to a new plane through the realization of God as Father and the Lord Jesus Christ as Son. Father discovered a duty to be kind and loving like God; sons to be obedient and reverent like Christ. Wherever St. Paul went, he strove to create a new sense of home duties and relations. We can see this by the present passage in Ephesians, which forms our lesson for to-day.

V. 25. The husband is to love his wife, not to tyrannize over her, as the heathen often did, still less to leave her or to divorce her, since Jesus had forbidden divorce. Mark 10:9, Matt. 19:6. Even philosophers among the Greeks doubted sometimes whether women had souls. So there was cruelty and neglect on a great scale. But now Christ's love for his Church creates a new ideal for the husband in relation to his wife. If we think of what a sacrifice Christ loved his redeemed ones when he died on the cross, it will put gentler thoughts into our hearts, and we will not only be kind to our dear ones, but we will reverence them. Men who have been selfish will become chivalrous and noble, and the home will be a different kind of place.

Vs. 26, 27. Christ loved his Church in order to make it holy. The sacrament of baptism, by which we enter into the church, indicates that we should live purified lives. The words spoken at baptism, namely, "In the name of the Father and of the Son and of the Holy Spirit," declare that we belong not to ourselves but to God. Christ wishes his church to be like a beautiful lady, shining in the light of God. He does not look for faults in it, like spots or wrinkles. He sees only the beautiful qualities of his church, and his purpose is that it should always be "holy and without blemish," like the sacrifices which are offered to God in the Old Testament.

Vs. 28-30. This love of Christ shows how the head of the house should regard the lady who is his companion on life's journey. He, too, should not be fault-finding, but chivalrous and generous. A man is not to make a difference between himself and his partner. Selfishness is a cruel trait in the home. But love, following the example of Christ, if it is bright, traces of care away and transforms the home into a place of genuine happiness.

V. 31. This is the reason why God at the beginning (Gen. 2:24) that when a man marries, the obligations of the new home are to take the first place in his affections.

Vs. 32-34. Paul says that the example of Christ's love to his Church is a profound mystery, that is, indicates a truth which only the Spirit of God reveals to human hearts. None but those whom Christ has awakened to spiritual truths can appreciate the spiritual illustration. Nevertheless, even simple Christians can see that what husbands and wives should look on their mutual relations as sacred relations.

II. THE DIFFERENCE CHRIST HAS MADE WITH RELATION TO PARENTS AND CHILDREN, 6:1-4.
V. 1. Christ was a perfectly loving



THE CARDIGAN DRESS IS MODISH

Exceedingly smart is the attractive cardigan dress shown here, and a style suitable for both the miss and matron. The two-piece skirt, having inverted plaits in front and back is joined to a dart-fitted under-body. The jacket has a facing and collar in one, a vestee, and smart patch-pockets. The long dart-fitted sleeves are finished with bands, and a trim belt fastens in front. No. 1526 is for ladies and misses and is in sizes 16, 18 years, 28, 40 and 42 inches bust. View A size 38 requires 4 1/2 yards 39-inch material, or 3 yards 54-inch. View B size 38 requires 2 1/2 yards 39-inch plaid material and 2 3/4 yards plain; 1 1/2 yards 36-inch material for under-body. Price 20c the pattern.

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Son to his Father in heaven, and his example means that sons and daughters in the home should show obedience to their parents. Children are not to be grudging or discontented, peevish, but are to render willingly whatever service is required of them by father or mother.

Vs. 2, 3. Paul reminds the children of the fifth commandment. God says, "Honor thy father and thy mother," and St. Paul notes that this is the first commandment to have a promise attached to it. And the promise is God's blessing. Only those children can ask for God's blessing who are reverent and obedient in spirit. We should not think that we have a right to live happily and long if we do not submit ourselves to the duties required of us.

V. 4. But Paul knows that parents need to show a proper sympathy with their children and not carelessly to provoke them to revolt. He reminds them that they are responsible for the religious upbringing of the young, and insists on the children being taught to rule their lives by the fear of God, and on their being instructed in God's Word. The result will be a truly Christian home.

If your heating plant is hot water or steam, be sure all conducting pipes are well insulated. One home-owner who had a hot-water heating plant wondered why the basement was the warmest part of the house, until he discovered that the pipes were covered only with paper. This was torn off and the regular cellular type of insulation, obtainable in units with bands for attaching, put on instead.

QUEEN OF HEARTS ST. VALENTINE'S DAY

BY JEAN HATHAWAY.

Valentine parties are the nicest of any.

The Queen of Hearts—the hostess at the party—invents her Court and from the moment they are received at the Throne by Her Majesty in gala valentine costume, till the last good night is said, all is fun and frolic. After the Queen has decided upon her list of guests she issues red heart-shaped invitations with the following lettering in white ink:

Will You Please Come To My Valentine Party at.....o'clock. Date..... Queen of Hearts (Sgd.)..... Price of admission: One original Valentine.

The hostess is a very modern queen indeed, wearing a colorful paper slipper made from crepe paper. This is worn over her dress, is very easy to make and most appropriate for the occasion. And no queen could ask for a more original crown than the large red heart which she wears so jauntily.

Red, the color of all true lovers, is the keynote for valentine decorations. A large red valentine, made poster fashion, is hung on the front door and the house is decorated with red hearts and bands of red crepe paper. Bare branches, hung with crepe paper moss or real out-of-doors stuff if you can get it, and here and there a red cardboard heart, stand in nooks and corners. Lamps are shaded with red crepe paper and red candles are used here and there.

The original valentines are taken up at the door and unwrapped when all the guests have arrived. The one which is voted best draws a small prize. A booby prize creates lots of laughter.

If there is to be dancing at Court, bidding for partners is a source of merriment. Each girl is given an assortment of small articles to use as "money" (candy hearts, buttons, beans and so forth). The auctioneer puts up packages of various sizes and each girl bids for them. The auctioneer decides whose money is of the most value and writes her name on the package. When all the packages have been purchased they are distributed. When opened, each is found to contain two paper caps, on one of them the name of the man who is to wear it and so become the girl's first dance partner. This same idea is adapted to choosing supper partners.

To mix the crowd and break the ice, there are valentine verses. The girls draw hearts and the boys arrows from a decorated basket. On each heart is written a word and on the arrows words that rhyme with those on the hearts. Partners are found by matching rhyming words. Each couple is then given a piece of paper and a pencil and asked to write a valentine verse of two lines using the two words for the last words of the lines. After the verses are collected they are read aloud and suitable prizes awarded to the co-authors of the best verse.

GAMES FOR THE PARTY

A Heart Race is jolly. Each contestant is given two red hearts about twelve inches in diameter, one for each foot. The racer places one heart on the floor and steps on it. At a given signal the other heart is put in position for the other foot. This race proceeds, a heart-step at a time, to a given point and back. The hearts only be stepped on and each must be lifted at each step and placed again on the floor. Failure to follow these instructions puts a contestant out of the race.

"Two Hearts That Beat As One" is another St. Valentine's game. Fasten a sheet of white paper to the wall and paste a large red heart at the centre. Give each guest a heart of the same size. Let each person be blindfolded and in turn try to pin the heart directly over the one on the paper.

VALENTINE FOOD

The spirit of St. Valentine's Day is still further carried out when refreshments are served. A basket, decorated with red crepe paper, adorns the centre of the table and a streamer of red leads to each place. When the streamers are pulled at refreshment time, each guest draws an individual heart-shaped cake, iced with white

INJUDICIOUS PRAISE

BY LENORA BAILEY.

Mrs. Lee was visiting the studio where her five-year-old daughter, Virginia, was beginning the study of instrumental music. "Virginia had been asked to join in some simple little songs and had done very well.

"Oh, what a lovely voice you have, Virginia; you can certainly sing," gushed Mrs. Fields, the owner and conductor of the studio.

"Isn't she fine? She ought to have little lessons in vocal work," raved Faye, Mrs. Fields' grown sister. Virginia twisted with pleasure and complacency and remarked: "Yes, I think I do sing real well."

"Of course you do," agreed the ladies. The thoughtful mother took her little daughter out of the studio as soon as possible. On the way home, Virginia asked if she had heard what had been said. To this the mother responded: "Yes, I think it so nice of them to say such kind things about my little girl. Of course, you know, dear, they wanted to make us feel happy so they were extra generous."

The child was thoughtful for a few minutes and then said, "Well, I do think I can sing better than any of the other children around here. Mother, don't you think I should begin to take vocal and dancing lessons?"

"No, indeed, dear; not for quite a while."

"But, Mother, Faye said I was a born dancer and Mrs. Fields told me I was the most graceful child in her classes, unless it is Dena, and Mother, I can do better than she can even if she does feel so smart and big."

"Listen, dear, Mother will tell you when she wants you to do those extra things, so let us not worry any more about them."

After a short silence: "Mother, Faye thinks I won't ever amount to anything the way you are raising me." The mother was absolutely non-plussed for a few moments. She felt really more than vexed that a child so young should have been exposed in this way, especially since she had had to help Virginia constantly because of a natural tendency to think too highly of herself and her ability. She was sorry to see the unaccustomed frown of irritation on the young face and wondered how Mrs. Fields, herself a mother, could take such an attitude toward a child or permit her sister to do so. "Does Mrs. Fields carefully consider and weigh all her actions and those of her children as I do?" she questioned. "We are both students of Child Psychology, yet I cannot see that she applies any of her knowledge either in training her own children or in dealing with mine." But she pushed the annoying thoughts quickly and resolutely aside and looking down tenderly at her little daughter, she asked, "And what does Virginia think?"

It was the child's turn to be non-plussed. Then meeting her mother's loving gaze, a new spirit of loyalty was born.

"I'd rather hate you for my mother's way than have her somewhat irrelevant reply."

A Country Book Club

In sections where public libraries are rare, it is still possible to have an abundance of good reading by forming a book club. Each member of the club contributes the price of one book, and the books are circulated from home to home.

It would be possible, of course, to have each member buy the book she desires as her contribution to the club, but better results can be secured by having a book committee to select the books. This committee can request suggestions from the members of the club, but in addition they can take counsel of librarians and carefully consider various book reviews. Buying the books in one order, it will frequently be possible to get a better price than if the books were bought singly.

The size of the club must also be carefully considered. It is better to have two clubs than to get the club too big. For example, suppose the rule is that each member may keep a book for reading two weeks; then twelve books will last for six months. A large club also makes the circulation of the books more difficult.

There should be a card in each book indicating the order of the readers, and it will be found better for each reader to call for the book which she is to have next. If those who have read the books are expected to pass them on they are more likely to procrastinate than when a new book is ahead to be obtained and read.—J. E.

Native Names. Did you ever think how unlike are our names for certain countries to those which the natives of those countries use? For example the Egyptians call their land *Nier*, the Finns call theirs *Suomen Tasavalta*, the Persians know their country as *Iran*, the Estonians theirs as *Eesti Vabariik*, and Palestine is officially *Filistin*. The Irish Free State is *Saorstát Éireann*, Japan is *Nippon*, and Morocco is *El Maghreb*. That will do for to-day.

Buttonholes of artificial flowers, now so popular, are growing larger; at least as many as 150 violet may go to the making of one "posy."

ANCIENT TOWN

Excavation in suits in Into Cove

Copenhagen, Dec. Paul Nordfjord expedition has returned to Copenhagen with some of the most valuable archaeological objects. The objects are of great value to the study of the early history of the North Sea coast, as the objects found here are similar to those found in the colony of Jutland. The objects are quite an extension of 2000 or 4000 years.

The main ruins of the cathedral palace, which were the most recent remains of the hall of large stone to those known in the region.

Not far from was the cathedral, with flat stones of the cathedral and 90 feet, about the cathedral (Nidaros) there were ruins to the cathedral.

Suitable building material was obtained from the Norsemen of old home-made buildings, and these, with their descendants, Danel who settled here. They engaged, and although they keep some of the remains, which hood from the sea.

Of Erik the Red's tomb; he did not build his farm at this close by. There are undertaken and found. The stones to Copenhagen to the Red was a husband and family became a small church built believes he had the expedition in fine weather and hope to set out again land and further a than on their ancient settlement.

Repe

Here is a word of burden in our current office dictionary. The finest mountain watch that, on peaks, on a little more than one at, late who repeats of usual performance, ver that free a nut out reloading. We here in still another. Tomacy, but in it. a boy or girl, to again the same cause of a failure, inistions for p... Did you ever hear dent any to his I think I shall funk gela and Fron hard? And havev cent parent reply. You can take this year, and they'll be young yet, son school won't matter much conversation through his boy's love, flunk his own years again in the first year in high. Probably he fails. force and care year after year of the good of his. Reporters grateful of the published payers grumble at their schools and that expense by children in a latin time and the effort parents could be cost of teaching same subjects probably one a and the quality of sch... Besides the muninity there is the character of a boy five years is also habit of idleness. A life can easily generation of men It is not hard for what sort of work are doing in school on the subject to keep the young no means inaccour public school child drift into That is the road life of incompetence.

Invalid children town are visited by a public school, can continue their

MUTT AND JEFF—By Bud Fisher.



Poor Mutt, the Twins Are Driving Him Cuckoo.