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4-H Club Circular 86

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UNIVERSITY OF MISSOURI

COLLEGE OF AGRICULTURE

AGRICULTURAL EXTENSION SERVICE

COLUMBIA, MISSOURI

WHERE TO FIND IT

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4-H SAFETY HELPS US:

Realize the Need for Preventing Accidents

Recognize Hazards

Prevent Accidents as a Protection to Life and Property

4-H FOR SAFETY

A Club Activity

What can 4-H club members do?

In meetings:

1. Adopt a safety slogan.
2. Have demonstrations, discussions, slides, movies or film strips on accident and fire prevention in five or more meetings.
3. Visit a home and yard, a barn and barn lot, storage places and machine sheds to locate danger spots.

At home:

1. Each year inspect and check your own home, farm buildings and yards for fire and accident hazards.
2. Remove (with parents' help) five or more hazards.
3. Take part in discussions and demonstrations to prevent accidents and fires.
4. Practice safety daily at home, on the farm and on the highway.
5. Take driving instructions and tests.

For and with the community:

1. Sponsor two programs to prevent accidents or fires. Invite the entire community to a meeting (see National Safety Week).
2. Make money to help buy fire fighting equipment or provide fire fighting equipment.
3. Discourage the burning of woods, corn stalks and remains from other crops on the farms of members.
4. Urge parents to work out a fire alarm system with the neighbors.
5. Put up signs to prevent accidents and fires on the road.
6. Make exhibits to show how to prevent accidents and fires.
7. Sponsor auto driving clinics.
8. Observe National Safety Week in July (see page 19).
9. Sponsor a community fire-prevention campaign in October.
10. Know the location of the water supply and fire fighting equipment at each home.

When your club does

Two of the above its rating will be — Fair

Four of the above its rating will be — Good

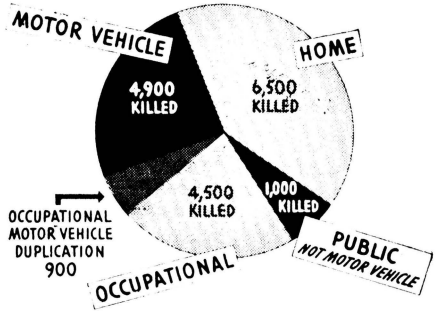
Five of the above its rating will be — Excellent

Prepared by Virgil Burk and Jane Hinote, State Club Agents. Much of the material has been provided through the courtesy of the Farm Section of the National Safety Council.

LET'S HELP MAKE FARM LIFE SAFE

During 1945, accidents in the United States caused around 96,000 deaths. Of these, 16,000 were farm residents.* In addition to the 16,000 deaths, approximately 1,500,000 persons were injured by accidents.

The main cause of accidental death and injury among farm residents is home accidents. The toll of farm home accidents was 6,500 persons killed and 950,000 injured.



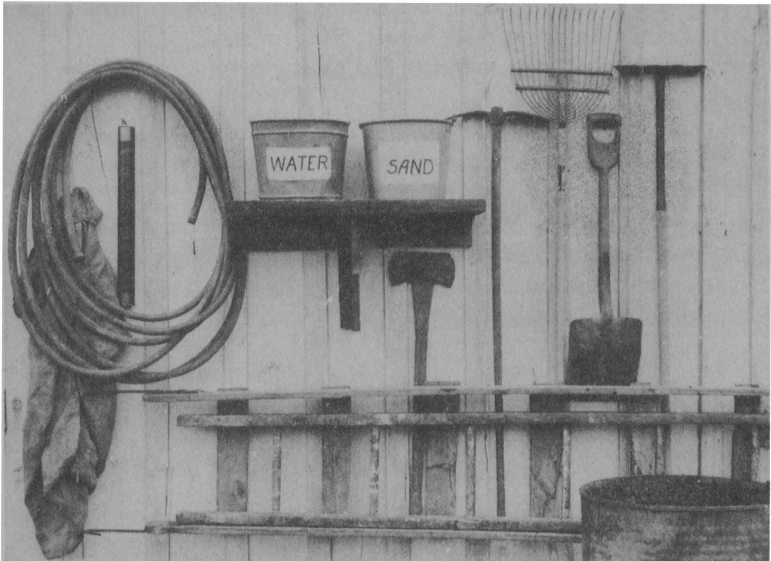
Causes of Farm Home Injuries and Deaths

Falls	39%	Mechanical	4%
Burns	25%	Other	19%
Firearms	7%		
Poisonings	6%		

SOME WAYS TO PREVENT FIRES

Farm fires destroy around \$90,000,000 worth of property each year, according to the National Fire Protective Association.

“The best time to stop a fire is before it starts.”



*All figures by National Safety Council.

Be Prepared

Assemble fire fighting equipment and keep it ready for immediate use. Paint handles of tools red so they can be easily recognized.

Simple equipment for fire fighting:

1. Back-pack pump filled with water.
2. Ax.
3. Council fire rake.
4. Broom rake.
5. Shovel.
6. Ladder (long enough to reach any roof).
7. Burlap sack and bucket for water.
8. Bucket of sand.

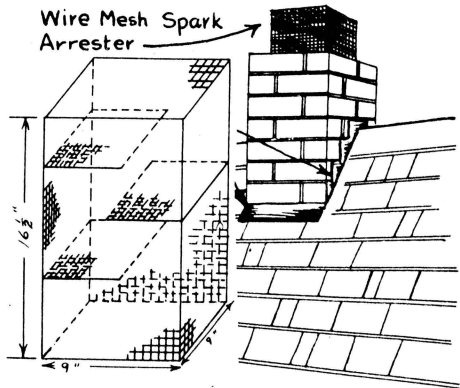
Spark Arresters*

Spark arresters are desirable and, where chimneys are near combustible or weathered roofs, lumber, forest, etc., they are particularly important. While arresters cannot be depended upon to eliminate sparks under all conditions, when properly built and installed, they greatly reduce spark hazard.

The spark arrester may be made at home of one-half inch mesh hardware cloth. It consists of an open bottom, wire sides, top, and baffles.

Directions for Construction

1. Cut one-half inch mesh hardware cloth into the following pieces:
 - a. One piece $16\frac{1}{2}$ x 28 inches for sides (1 inch of 28 inches used for lap).
 - b. One piece 10 x 10 inches for top ($\frac{1}{2}$ inch used on each edge for attaching to sides).
 - c. Three pieces $5\frac{1}{2}$ x 10 inches for baffles ($\frac{1}{2}$ inch used on two ends and one side for connecting to sides of spark arrester).
2. Bend large piece for sides so that arrester is 9 inches square. Use edge of board or other square object so that 90 degree angles are secured.
3. Insert baffles in arrester and bring sides of arrester together and fasten by folding end of wire back with pliers.



*Prepared by Ralph Ricketts, Extension Agricultural Engineer.

4. Fasten baffles in place by bending end of wire back with pliers.
5. Place top piece on arrester and fasten in place by folding ends of wire with pliers. One way to fasten arrester to chimney is to wrap one strand of wire around chimney at a mortar joint and attach arrester to this wire on four sides by using No. 14 or No. 16 wire.

Fireproofing Solution*

You can make a solution for fireproofing clothing, curtains and ironing board covers by using borax, water and boric acid.

Stir 7 ounces of borax and 3 ounces of boric acid into the 2 quarts of hot water until a clear solution is obtained. If it becomes cloudy when allowed to stand, it can be restored to its original condition by warming.

Articles that are washed should be **fireproofed after each washing.**

Leave permanent plugs in sockets and fixtures plugged into this to protect children from dangerous shocks. Remove a plug from the outlet or the appliance by grasping the plug itself. Do not pull on the cord.



Hands should be dry before touching an electrical appliance or a chain pull. Water is a good conductor of electricity which makes it very dangerous. Electric fixtures and switches should be installed so they cannot be reached from the bath tub.

Fuses are the safety valves of the electrical system. If one blows out, it shows that the circuit is overloaded. Correct the cause of the trouble and replace the fuse with one of the same size that was used originally. Use only fuses bearing the label of approval of the Underwriters' Laboratories.

To Ground Metal Roofs†

You can eliminate many of the fire hazards on metal roofed buildings by simple grounding.

Two grounds at opposite corners are enough where the distance around the building is not over 100 feet from one corner to the opposite one. If the distance is over 100 feet, ground all four corners.

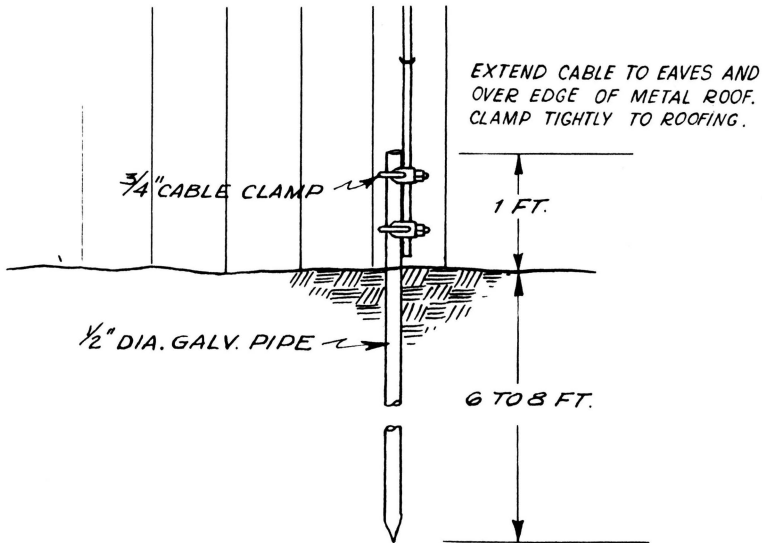
A cable can be made by twisting three pieces of No. 9 galvanized wire together. Tie one end of the wires to a post and the other end

*Farmers' Bulletin 1786, U. S. D. A.

†Prepared by Herman Hall, Extension Agricultural Engineer.

to a wagon wheel close to the hub. Turn wheel to twist wires into a cable.

A minimum of 18 inches of cable should lay on the roof and be clamped in two places by bent bolts.



Use Fire With Extreme Care

Never start or revive a fire with kerosene.

Stove polish should not contain benzine or any type of explosive.

Use kerosene lamps with wide bases. Metal lamps are safer than glass. Fill them in the daylight only and out of doors if possible. Keep the wicks trimmed level and have the burners and wicks fit tightly. Do not place a lamp on a table cloth where a child can pull it off. Never let children carry lamps. Do not leave children alone with lighted lamps. Always put out the light before leaving the house.



Never, never fill a gasoline or kerosene stove while the flame is lighted.

Both kerosene and gasoline should be stored outside the house. Gasoline should always be stored in a RED can and kerosene in a can of another bright color so they will not be mixed.

Store gasoline at least 75 ft. from all buildings.

Water thrown on a gasoline or kerosene fire will spread the flames. Use a blanket, sand or earth to smother gasoline flames.

Stamp out the discarded cigarette.

Careless smoking and disposal of matches cause more than one-fourth of our house fires.

Keep matches in metal container and where children cannot get them.



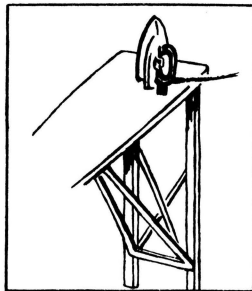
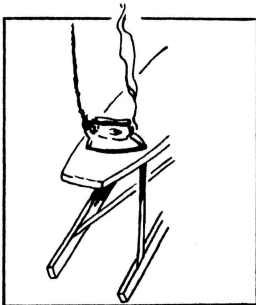
Do not allow smoking in barns and other farm buildings where there are materials which catch fire easily.

Make and hang "No Smoking" signs around farm to remind everyone of dangerous areas.

Do not strike matches in the barn. Light the lantern before entering. Provide hooks or wires from which to hang lanterns. Don't set the lantern down where it can be knocked over. Hang it where the cows or horses cannot switch it and where it won't be hit by tools.

No one should smoke in or near fields which might catch fire.

About 40 fires a day are started because electric irons are left in circuit. When setting the iron down, use the heel rest. Turn off the current if it is necessary to answer the telephone or door.



Check chimneys, furnaces, flues, stoves and stovepipes for defects at least once a year, preferably in the early fall. Rebuild de-

fective chimneys. Heating equipment must be properly installed. Keep chimneys and flues clean.

Set stoves on solid bases well away from walls, floors, and wood-work.

Put ashes in metal containers.

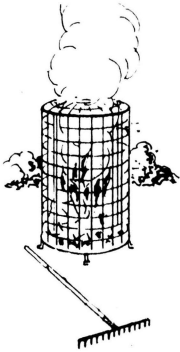
Rags, paper and other rubbish may ignite, just as hay does, if not exposed to some air. Do not allow trash to accumulate either in or outside buildings.

Put treated dust cloths and the heads of oil mops in tightly covered metal cans. Oiled cloths may cause spontaneous combustion.



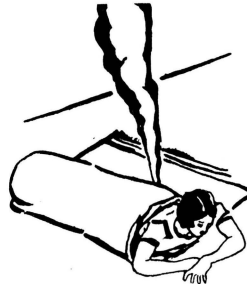
When burning rubbish, use a wire or metal basket with cover to keep flaming particles from blowing onto buildings or dry grass. To make a wire basket, drive four pieces of pipe five feet long into the ground one foot to form a 24 inch square. Wrap poultry wire around the four pipes to form a wire basket.

Never burn trash close to buildings or dry fields. Burn trash on still days.



What To Do in Case of Fire

It is easier to prevent a fire than to put it out. If you awake at night and smell smoke, do not throw open the door of your room. To do this may be fatal; for if heated air and smoke burst in, you will breath it—and one breath may be too much! Feel the door. If it is not warm, open it cautiously. If there is dense smoke but no flame, tie a wet cloth over your mouth and nose and crawl out, because cooler, clearer air is found near the floor.



In reporting a fire over the telephone, tell the operator and be sure to give her the correct location.

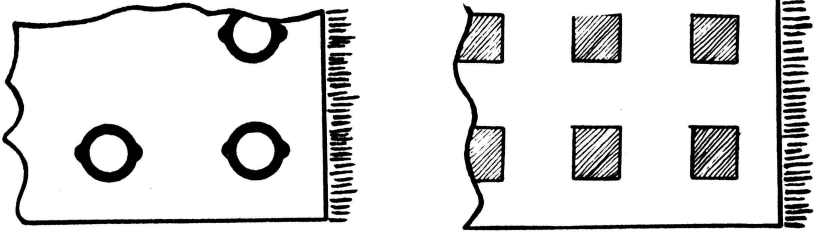
To run when the clothing is on fire will fan the flames. Lie down and wrap yourself up in a rug, overcoat, or blanket. If there is nothing to roll up in, just roll over slowly and beat the flames with your hands.

SOME WAYS TO PREVENT FALLS, CUTS AND BURNS

Falls account for 39% of the farm home accidents and more than 50% of all home accidents. They happen when we lack the necessary interest in safety to eliminate hazards or avoid unsafe practices.

To Keep Small Scatter Rugs From Slipping*

1. Old fruit jar rubbers may be sewed under the edges of scatter rugs.
2. Small squares of thin waste rubber (sponge rubber, rubber gloves or innertube) may be cemented to the back of the rug with flexible household cement. Squares may be spaced 5 to 8 inches apart over the entire rug.



3. A commercial preparation, sold by paint dealers, may be brushed on the back of a rug to make it skid resistant.

Mend tear or rip in carpet materials at once.

Do not put small rugs at the head or foot of stairs or on landings.

A hand rail and clear steps are important for the safety of all who use the steps.

Toys are dangerous on steps.

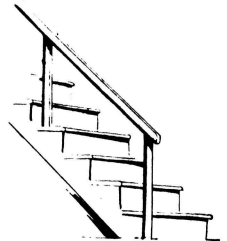
Paint the bottom basement step white so persons will not fall from the lowest step—by thinking they are on the floor.

Broken steps or littered stairs are hazardous.

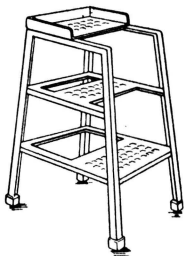
Wipe up spilled oil, water or food at once and avoid falls.

A rubber mat placed in the bathtub and a strong bar along the wall will help prevent falls in getting in and out of the tub.

Have the clothes line high enough for all members of the family to walk under without stooping.



*Prepared by Madonna Fitzgerald and Louise Woodruff, Home Management Specialists.



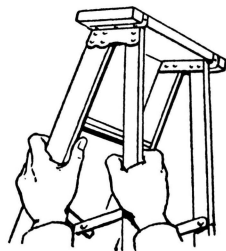
Never stand on chairs, stools, boxes or tables to reach things in the house or barn. Severe injuries have often been caused by falls from low levels.

Step stools, when built properly, are better for ordinary indoor use than ladders. Pieces of rubber innertube tacked on the bottom of a step stool will help keep it from slipping.

A step ladder should have a firm level base. If blocking is necessary it should be solid. The ladder should be opened all the way until the spreader locks itself.

Be sure to place the ladder so the places and objects may be reached easily. Never stand on the top of a stepladder; use one high enough to let you stand at least two steps from the top.

Climb ladders carefully. Face the ladder. Clean mud or grease from your shoes before climbing up to work. Do not carry heavy objects, sharp tools or bulky things when climbing. Never carry objects such as nails and screws in your mouth when climbing. Hold on to the sides of the ladder when climbing. Set ladder firmly on the ground or floor at a safe angle. The base of the ladder should be one-fourth of the ladder's height away from the wall. If the ladder is too nearly horizontal it may slip or break; if too nearly vertical, it may fall backwards. Move the ladder instead of leaning far out.

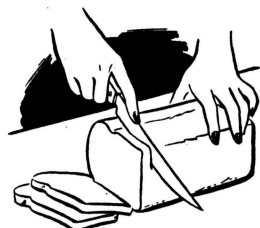


Keep ladders in good repair.

Cuts and Punctures

Clear the yard of broken glass, nails and other rubbish.

Always remove or flatten nails in scrap wood or when breaking up old boxes and barrels.



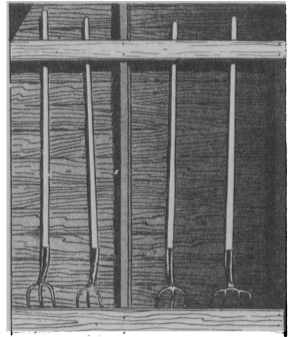
When using knives cut away from the body so that if the blade slips you will not be hurt. When passing a sharp knife to another person, hold the blade with the dull side toward the palm of your hand.

When slicing bread lay the bread on its side. Use a light sawing motion. Do not press heavily on the bread. Keep your eye on the point toward which you want to cut, but be sure your fingers are out of the path of the knife blade.

Sharp knives may be kept in a knife rack, special drawer or section of drawer.

Many serious falls occur when people trip over garden tools and lawn mowers. An upturned rake is particularly dangerous.

Store tools carefully. Insert pegs or spike nails in a ten foot board to hang forks and tools after using. If spikes are put at an angle tools will not slide off as easily.



Pitchforks are very dangerous. They should be safely stored. Pitchfork tines may be driven into the ground when the fork is left temporarily.

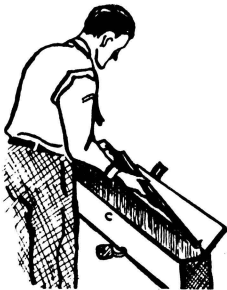
Make rough handles smooth.

Handle materials safely. Use gloves for rough splintery wood.

Watch out for knots and nails in sawing.

Guns

Never point a gun at anything you do not want to shoot.



Guns should be stored where children cannot get them. Remove all ammunition and set safety catches. Lock firearms in a strong box. Keep ammunition out of children's reach and away from heat or fire. Every gun should be handled as if it were loaded. Always keep guns pointed downward and away from feet or other part of body.

Burns

Burns, scalds and explosions caused 25% of the farm home accident deaths.



Pans containing hot liquids on top of the stove or table should have the handles turned in so a child cannot grasp them or a grown person brush against them.



Always tip cover from far side of pan to allow steam to escape away from you.

POISON

"Leaves Three, Quickly Flee." Remember that poison ivy and poison oak each has three leaves. The sap is poisonous and causes severe skin irritation. If you touch either of them, wash your hands immediately, using lots of laundry soap and hot water. Apply a 5 per cent solution of ferric chloride to affected parts as a wash. See your physician promptly if there is any sign of severe irritation.

The poison ivy sap on clothing can easily be transmitted to hands or other parts of the body. Poison can remain in clothing for a year and still cause irritation. Dry cleaning is best for removing the poison.

The most effective method for killing poison ivy is to spray the plant with 2, 4-D according to directions on the container.

When burning dried uprooted poison ivy plants, keep away from the poisonous smoke — it may cause equally serious irritation.



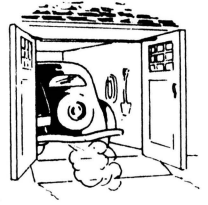
Poisonous Substances—Keep poisonous substances, such as spray materials, insect powder and lye all together and locked so children cannot get them.

Be sure all medicine bottles and other containers are properly labeled according to their contents. Bottles of poison may have a

pinned cork; screw top bottles may have adhesive tape over the closure or sandpaper around the bottle to identify them to the touch.

If you suspect someone has taken poison, call a doctor immediately and tell him all you know about it.

Keep the medicine chest beyond a child's reach.



Garage doors or windows should always be opened before starting an automobile in the garage. Carbon monoxide gas is a deadly poison which you cannot smell or see.

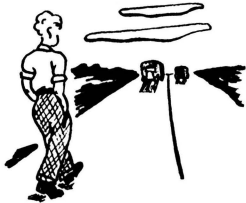
Keep These in YOUR Medicine Chest

- | | |
|--|----------------------------------|
| Aromatics of ammonia | Epsom Salts |
| Burn ointment | Castor oil |
| Sodium bicarbonate, powder and tablets | Adhesive tape, 1" wide |
| Rubbing alcohol | Absorbent cotton |
| Iodine | Assorted sterile bandages |
| Clinical thermometer | Sterile gauze or gauze pads |
| Vaseline or olive oil | Medicine dropper |
| | Saturated solution of boric acid |

Make it a habit to apply first aid for any cut or puncture no matter how slight it may seem. All cuts or burns should be cleaned and treated at once to avoid infection. If possible, see a doctor even though it may not seem necessary.

In Case of Severe Injury

Don't move an injured person. If the person has suffered a fracture, you might make the injury worse and even cause death.



HIGHWAY SAFETY

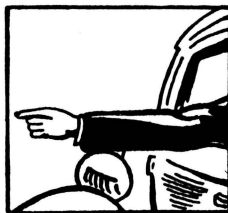
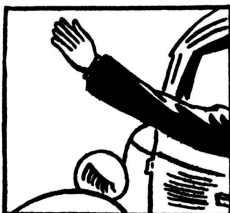
Walk on the left side of a highway then you can see and avoid oncoming cars. Walk in single file when meeting cars or going up a hill.

Know Your Signals

RIGHT TURN

STOP or SLOW

LEFT TURN



Experienced car drivers always give signals clearly and in plenty of time to warn the driver behind whenever they are going to turn, stop or pull out of line. Each year, however, thousands are injured in accidents caused by failure to signal properly.

Never hang onto a truck or ride on a running board.

In doing farm work wear clothing which fits the body snugly. Avoid loose floppy clothes and torn sleeves for they catch easily on moving machines.

How to Lift

When lifting, bend your knees, not your back. Size up the object to be lifted. Get help if necessary. Straining yourself may result in serious injury to your back. Lift with your legs, not with your back.

TO HANDLE ANIMALS SAFELY

About one person per county is killed each year by livestock. Of course, many more are injured. For safety, always keep your eye on animals, especially bulls.

A small child can easily fall from a running horse.

Carelessness in unhitching causes many accidents.

Always speak to horses before going behind them. A gentle horse will often kick when frightened.



For safety use a leading staff to lead a bull.

All bulls are dangerous. A good bull pen will prevent many accidents.

A wound caused by a hog's tusk is extremely poisonous. Saw tusks off regularly.

Rams are often dangerous to man and livestock when kept

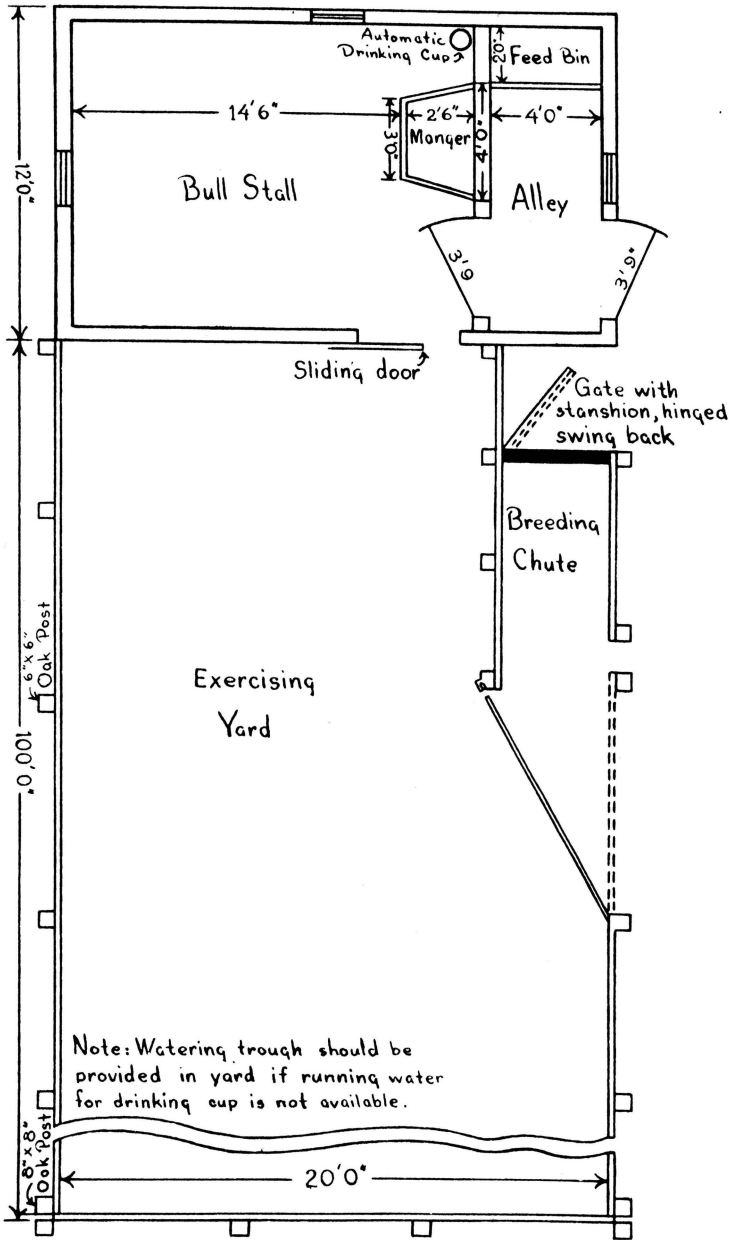
around the barn.

Often livestock as well as machinery may be injured when the two are together. Either put machinery in a shed or in a field away from livestock.

Loose baling wire is dangerous. Keep a barrel handy to hold loose wire so it can be hauled away.

If livestock must drink from a pond when it is frozen, chop a small hole in the ice close to the edge of the pond.

Keep deep ponds fenced. In winter cows may break through the ice and drown.



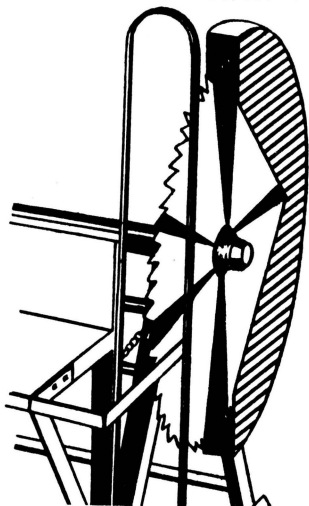
Prevent livestock losses by putting concrete tops on cisterns and wells.

Carelessness with nails in boards causes much loss of livestock.

TO HANDLE MACHINERY SAFELY

Farm machinery causes 2,700 deaths each year and about twice as many serious injuries. Carelessness causes most of these.

It is never safe to work in front of a sickle when horses are hitched to the mower.



Examine the hay trip-rope often. Every three or four years a new rope should replace the old one.

It is dangerous to have children near moving pulleys.

Keep children from riding on machinery.

Machinery is dangerous if you work on it while it is running.

Hitch implements to regular tractor drawbar. Be sure tractor is out of gear or engine is shut off when hitching. Hang a red flag on tractor gear shift to indicate tractor is not in gear when one is off the tractor seat.

If driving three wheeled tractors stay away from ditches. Tractors turn over easily.

Put guards on all circle saws.

Tools should be kept in place when not in use.

Nails can be stored in glass jars by nailing jar lids to a shelf.

ROLL CALLS

Why not have the roll call fit the meeting or based on the last meeting?

1. One hazard I have found in our home or on our farm.
2. What I did to prevent falls.
3. Safe way to handle animals.
4. One change I made to prevent fires.
5. One way to handle farm tools or machinery safely.
6. What I did to prevent an accident in our kitchen.
7. One way to avoid cuts.
8. One thing needed in fire fighting equipment.
9. One thing that I have repaired around the house.
10. Rhymes on safety.

DEMONSTRATIONS**Prevent
Fires**

1. How to make and install a spark arrester on a chimney.
2. How to make a wire container for burning trash.
3. How to clean and care for lamps and lanterns.
4. How to use an electric iron safely.
5. How to start a fire in a stove safely.
6. Storage and use of gasoline on the farm.
7. How to extinguish fire on clothing.
8. How to fireproof fabrics (ironing board cover, curtains and children's clothes).
9. How to ground metal roofs (wire fences, radio antenna, or metal frame of an electric washing machine).
10. How to store treated dust cloths.

**Prevent
Falls, Cuts,
Bruises and
Burns**

1. How to make a rug non-skid.
2. Some ways to prevent falls at home.
3. How to use ladders and step ladders safely.
4. How to use and store sharp knives.
5. How to store farm tools, (hoe, rake, etc.)
6. How to make clothing safe for wear when using machinery.
7. How to store toys (shelves or box).
8. Some ways to prevent scalds and burns.

**Avoid
Poisons**

1. How to store medicine and poisonous materials.
2. How to recognize poison ivy.

**Prevent
Accidents
on Highway**

1. How to walk safely on the highway.
2. How to give arm and hand signals when driving a car.

**Handle
Animals
Safely**

1. How to make a staff for leading a bull.
2. How to make a stanchion to hold big hogs.
3. How to make a baling wire catch loop for hogs.
4. Making a forty-foot rope for casting.
5. How to make an adjustable dehorning chute.
6. How to make a cow stanchion.
7. One way to make a medicine cabinet for the barn.
8. How to make a sanitary concrete well cover.

**Handle
Machinery
Safely**

1. How to make a guard for a circle wood saw.
2. One way to make a hanging board for forks and tools.
3. Storing nails in glass jars.
4. How to make a container for bale ties.

SLOGANS

Why not have a committee to work out a slogan for your club? The members have good ideas. Some suggestions are:

A stitch in time saves nine.

We don't fight fire, we prevent it.

Alert today — alive tomorrow.

A place for everything — everything in its place.

Better be safe than sorry.

Safety first.

Watch your step.

EXHIBITS

The club may want to prepare an exhibit for a store window, an achievement day or a fair. The exhibits could show contrasting situations such as GO-Green Light, and Stop-Red Light; Safe or Sorry; or An Ounce of Prevention is Worth a Pound of Cure.

Safe Home

Good firm step ladder
Clean steps.
Toys in box or on shelves.
Non-skid rug.

Unsafe Home

Girl standing on chair or table reaching high shelf.
Things on stair steps — girl coming down with hands full.
Toys and roller skates scattered on floor.
Rug that has slipped.

NATIONAL SAFETY WEEK

The club can observe National Safety Week (July) by:

1. Exhibits in store windows.
2. Checking accident hazards around homes.
3. Having safety program for the community.
 - Roll call — What I have done to prevent accidents this year.
 - Demonstrations or playlet on accident prevention.
 - Movie on prevention of accidents and fires.
 - Talks by highway patrolman or someone from the Conservation Commission.
 - Report of safety accomplishments.
 - Songs and games.

FIRE PREVENTION WEEK

Did you know that each Fire Prevention Week is observed the week in October which contains the ninth day of the month? This is the anniversary of the great Chicago fire of 1871 started when Mrs. O'Leary's cow kicked over the lantern.

In a story on fire prevention one club member said:

"Our club is trying to make fire prevention a personal responsibility and every week a fire-preventive week. Our whole community is resolving to carry out the motto 'Never be haphazard with a fire hazard'."

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED
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