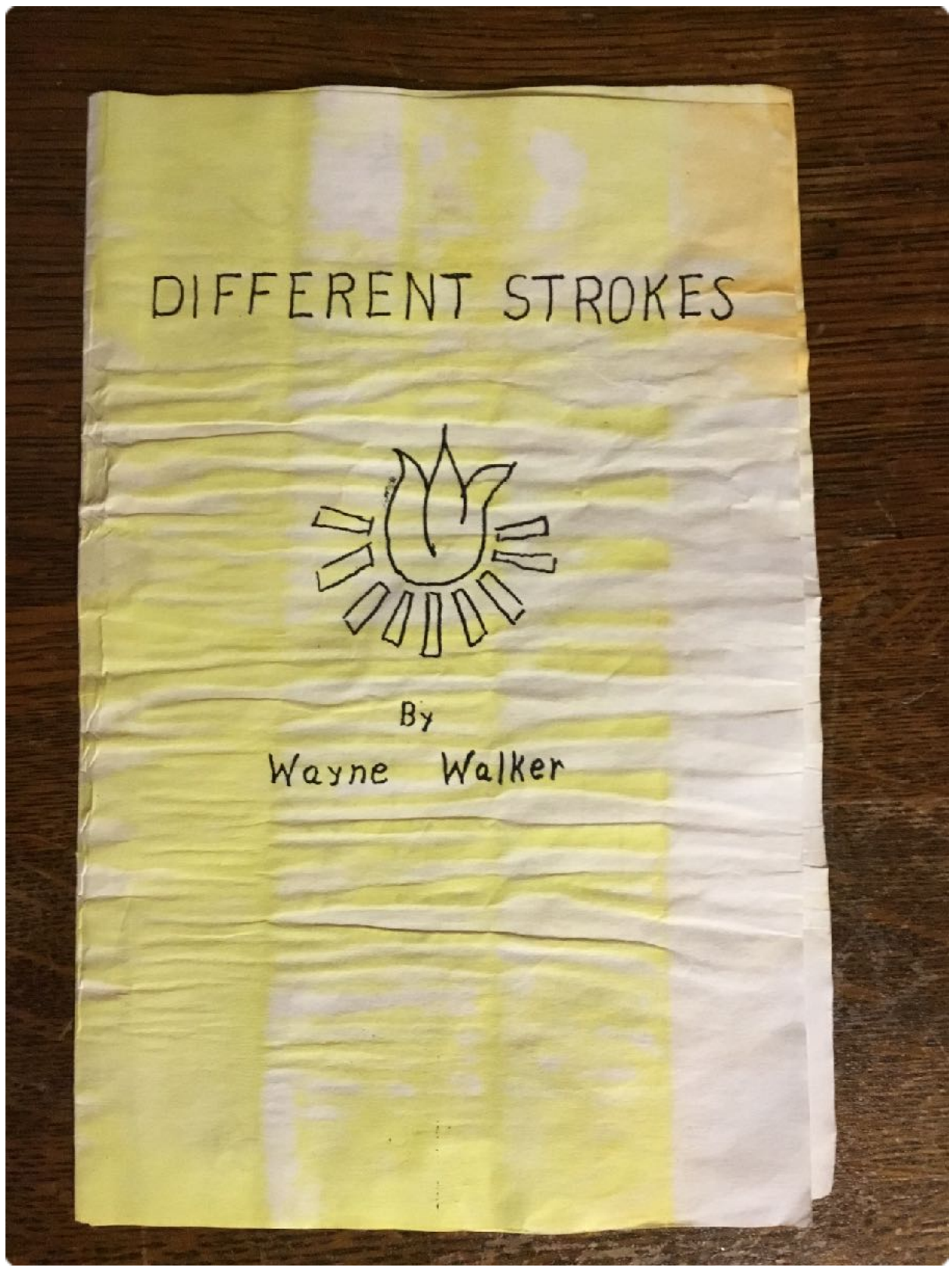
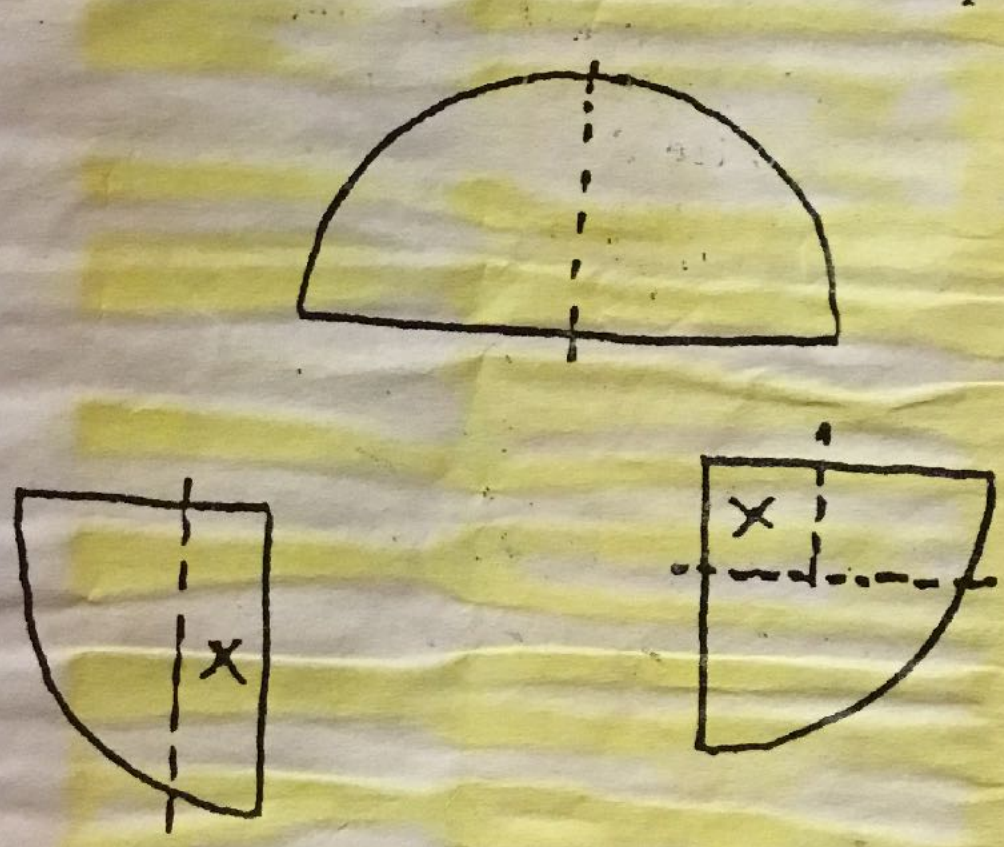
How to make a fire-by-friction set



HOW TO BUILD A FIRE BY FRICTION SET

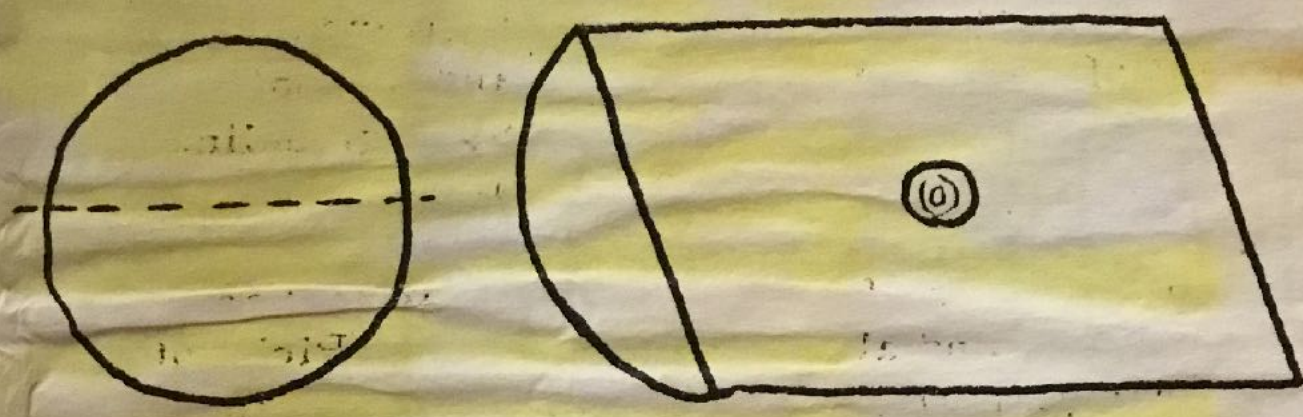
The following instructions and diagrams are the result of a lot of experimenting and is what works best for me. It is intended as guideline and can be altered to the individual.

Quarter a stick of red elm about 8-10 inches in diameter and about 12 inches long. Pick out the best quarter and split off one side one inch thick. Split a piece next to the heart one inch thick. Lay this piece aside for the spindle.

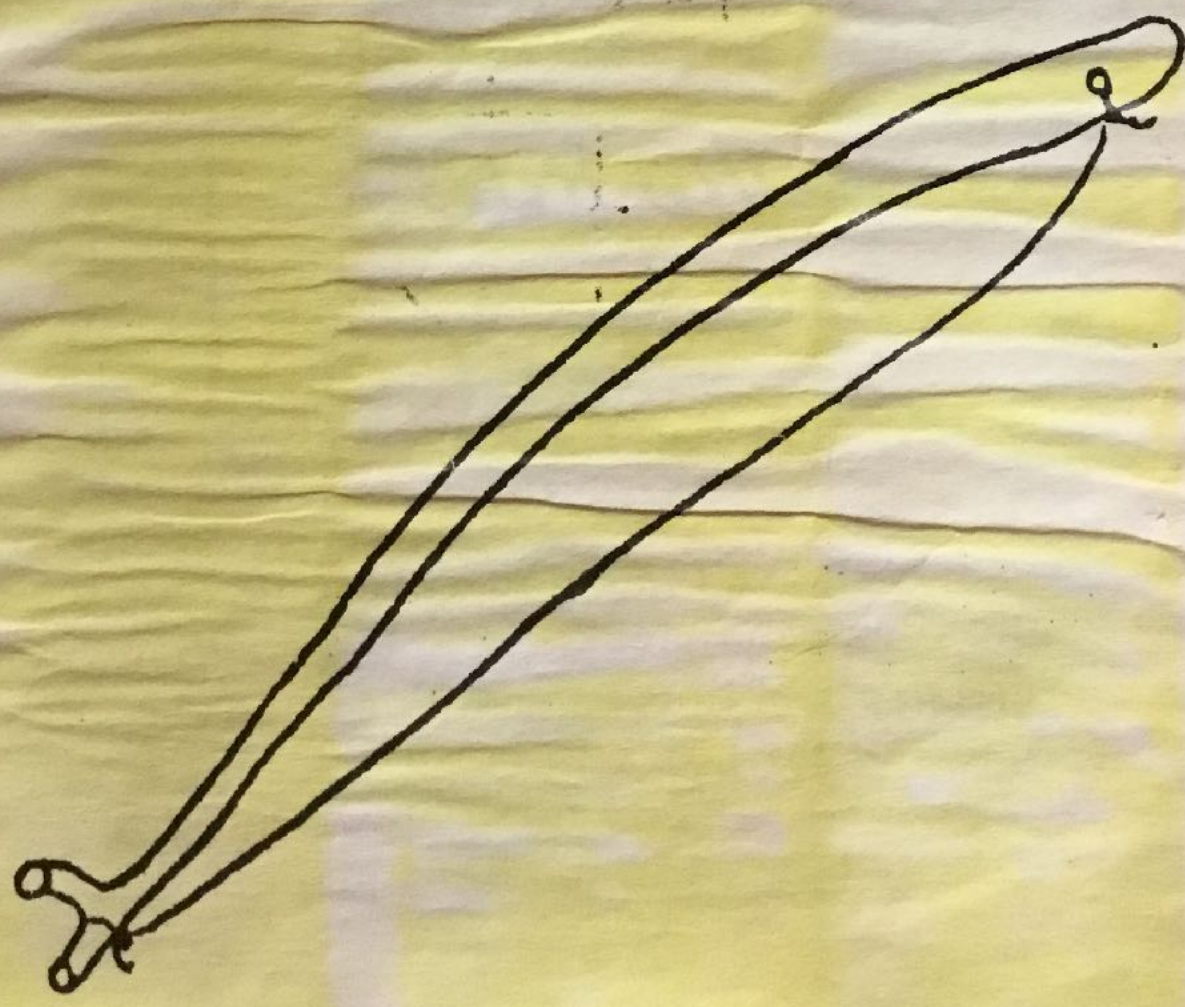


Next split a piece from another quarter 3/4 inches thick for the fireboard and lay this aside with the spindle.

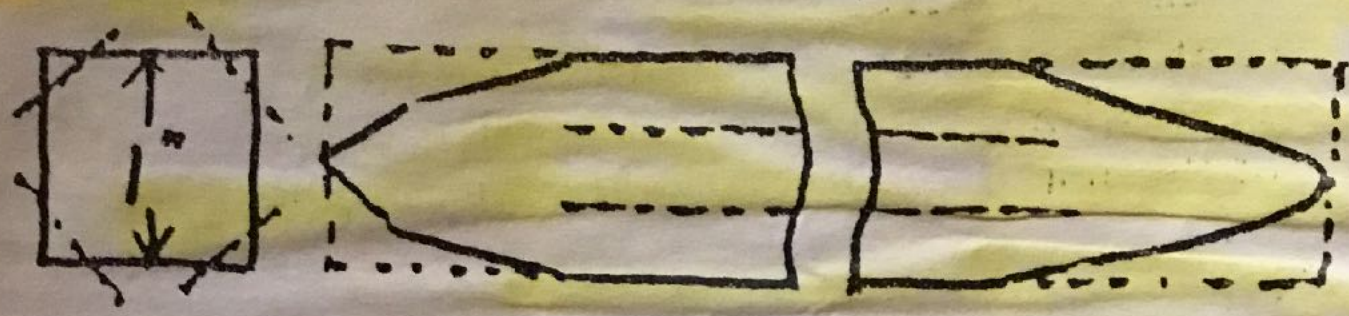
The hand piece can be made out of the scrap pieces or can be made out of a small limb about 2 inches in diameter and 5 inches long. Split piece in half and drill a shallow hole in flat side of one half. Lay this aside.



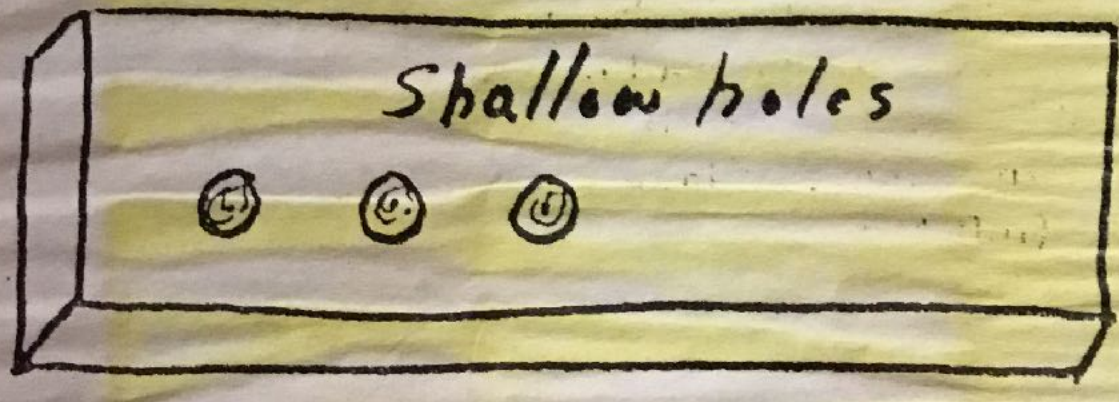
The bow should be a sapling about 30 inches long. It will work better if it has a slight curve. I like to cut one end where there is a fork and this makes a good place to tie the cord. Use sash cord or small nylon rope.



Now go back to spindle, with a sharp hand ax. Shave the corners down so, as to make it 8 sided. Leave the edges sharp so it will bite into the rope. Next sharpen both ends.

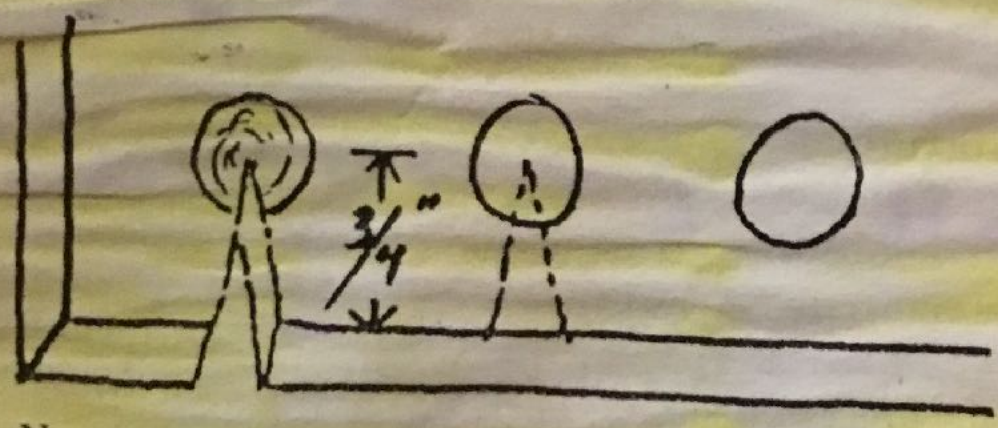


The fireboard should have a flat surface so it doesn't rock when placed on the ground. Take your hand ax and true it up. Next start 3 shallow holes 3/4 inch from the edge. The sharp corner of a hand ax or a sheath knife works good for this.



Now is the time to burn the holes deeper in your fireboard and your hand piece. Place the spindle in the bow and one end in the hand piece and the other end in one of the holes in the fireboard. Now stroke the bow back and forth slowly until a smooth bearing is burned in the hand piece. Burn

all 3 holes in the fireboard a little deeper. From this time on use the same end of the spindle in the hand piece. One final step and you are ready to try for a spark. With a hand saw or a bow saw cut a narrow "V" notch in the fireboard so the point of the "V" is at the center of the hole in the fireboard. Then with a knife shave the rough edges out of the notch and the bottom of the fireboard.



Now you are ready to try for a spark. Place a chip or piece of bark under the fireboard so the dust out of the hole will fall on it. If you want to build a fire then have your tender ready, place some lubrication in the hole of the hand piece. A piece of soap or a wad of grass will do. Assemble the set with the same end of the spindle in the hand piece. Place your left toe on the fireboard, (left toe if you are right handed) kneel down on the other knee. Place the other end of the spindle in the hole over the chip. Stroke the bow slowly at first until you get the rhythm. As smoke starts to appear, increase pressure on the hand piece and stroke the bow faster. Only practice and experience will tell you when you have a spark. If after you take the spindle out of the fireboard, smoke still appears, you have a spark.

DON'T HURRY. Very carefully take the handle of your knife and peck the board. The spark should fall out. If the spark seems to hang, pick it out with the tip of your knife. Don't pick up the fireboard to do this. Pick up the chip with the spark on it and lay it in your tender. An old birds nest is very good for this, squeeze the tender against the spark and blow gently. Hold the tender with your fingertips and blow through it. As the tender starts to glow, blow harder. If you have done everything right it should burst into flame.

If you can't get the set to work then try resharpening the spindle. Don't cut the "notches" too large. It shouldn't go past the center of the hole in the fireboard. A hole in the fireboard is usually good for 2 sparks. Experiment with the set, if the charred dust keeps falling away then lay a chunk of wood against the notch. Try different types of wood. Sometimes a sycamore fireboard and a red elm spindle work well. Other woods to try are red cedar, basswood, and yucca. I believe the efficiency of the set depends on the stage of deterioration the wood is, a lot of times. The more decomposed the better it is.

In closing I would like to stress the fact that a fire by friction set is not hard to build. In teaching a boy if you can relieve this mental block, he has half the battle won.

GOOD LUCK!

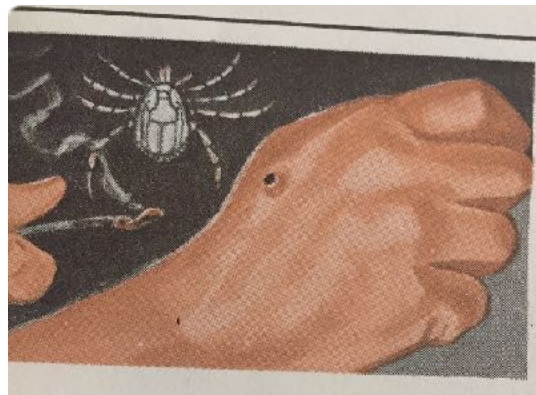
Wisdom and Leadership

BURNS AND SCALDS

First-degree burn: The skin is reddened. Patient may feel pain. Sunburn is usually a first-degree burn.

Second-degree burn: Blisters have formed. Extreme care is necessary to keep the blisters from breaking and wound from being infected.

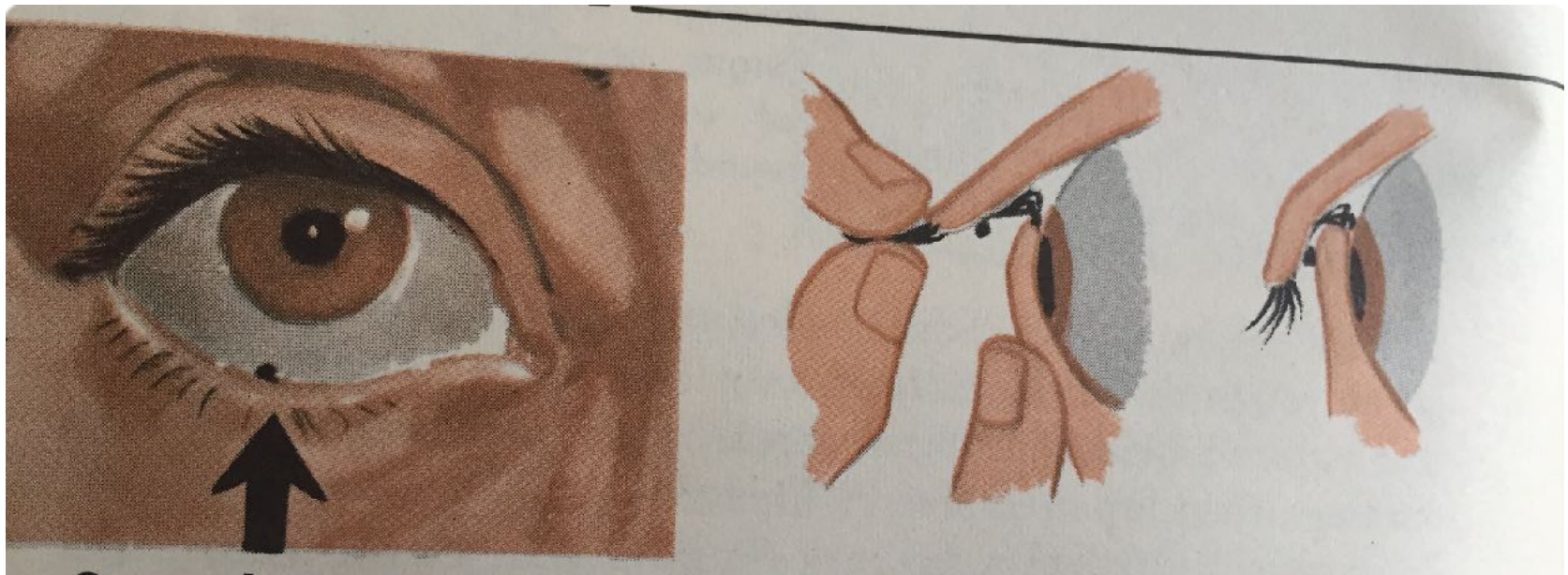
Third-degree burn: Some skin may be burned away and some flesh charred. Very dangerous because growth cells that form new skin are destroyed.



In case of a bee sting (far left), the bee will probably have left stinger in the wound. Remove the stinger carefully by scraping it out with a fingernail. Then dab wound with ammonia to ease pain.

Ticks are small, flat, hard-shelled relatives of mites. They can get on you in the woods or from your dog. They bite through the skin and suck blood. In certain areas, ticks may be infected with disease, such as "spotted fever." Therefore, don't take ticks lightly. The moment you feel a tick crawling on you, brush it off. If a tick has fastened itself to you, don't pull it off—the head will remain in your skin. Instead, cover the critter with grease or oil. This will close its breathing pores and make it let go. Or light a match, blow it out, and quickly touch the hot end to the rear of the tick to make it back out. Then wash with soap and water.

Sprained ankle bandage is not laid on the foot, but over the shoe.
If you take off shoe, swelling may keep you from getting it back on.



Something in the Eye. A foreign object in the eye is not only extremely painful but may also endanger the eyesight. It is usually easy to remove a grain of dirt or a cinder from the white part of the eye, but any object on the clear front part of the eyeball requires the immediate attention of a doctor.