AN EASY WAY TO MAKE AN HOUR GLASS

IN ancient days, time was measured by an hour glass. There were two bulbs of glass with a small passage between them. One of the bulbs contained a quantity of sand that took exactly one hour to run through the opening into the other bulb. Then, when it had all run through, the hour-glass was reversed, and the sand ran back into the first bulb, thus measuring another hour, and so on.

Any boy or girl can make an hour-glass without much expense. We take two bottles of the same size and shape—a shape like that shown in the illustration is the best shape. Then we take a quantity of fine sand, which has been washed and sifted, and put this in one of the bottles.

Now over the neck of the bottle we tie a piece of rubber from a bursted toy balloon, and prick a small hole in it large enough for the sand to pass through slow-

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A JUMPING FROG MADE FROM A WISHBONE

THE next time you have a chicken for dinner, save the wishbone—the lyre-shaped bone in the chicken's breast. It is quite easy to make a jumping frog from this wishbone.

We take the wishbone, and first thoroughly clean it. We let it dry for a day or two. Then we take a piece of strong, thin string, and, doubling it, tie it securely to the two "arms" of the bone about a half-inch from the ends, as shown in the picture.

Now we take a small piece of wood a little shorter than the bone, and a short distance from one end cut a notch around it. Slip the stick half-way through the doubled string, midway between the two "arms" of the bone, and turn the wood around and around until the string is twisted and shows a strong resistance. Then pull the stick through until the string clings around the notch. Cut out of thin cardboard the rough resemblance of a frog, and stick this with paste to the top of the wishbone. All that is now needed is a touch of glue on the underside of the bone.

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AN HOUR GLASS

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ly in a fine but constant stream. Turning this bottle upside down on the top of the other, as shown in the picture, we let the sand run for an hour and then take the top bottle off. We remove the rubber covering, and tie it on the second bottle, into which the sand has run for exactly an hour. Then, after removing the surplus sand from the first bottle, we invert the other over it, and let the sand slowly run back, checking it carefully to see that it takes exactly an hour to run through.

Then, keeping the bottles one over the other in the position shown in the picture, we bind some adhesive tape round and round the necks to keep them together, and our hour-glass is complete and ready for use.

A JUMPING FROG

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as in the picture. Having pulled the stick over, lay the bone, or frog on a table, and in a moment or two the glue will cease to hold, and the springiness of the twisted string will cause the bone to jump quite a distance.

DISCOVERY OF FIRE

(*Continued from page 203*)

for the heat, the fire leaped, and terrible pain struck the hand that dared to touch it. It must be a sacred thing not to be treated without respect.

After this all the tribesmen used the strange brightness for warmth on cold days. But they soon learned that almost anything they left near it would be destroyed by the leaping flames, and nothing would be left behind but a gray powder. So whatever they cared for they kept out of the fire's reach, and little by little they learned how to live with the strange spirit.

Thus probably occurred the discovery of fire thousands and thousands and thousands of years ago by prehistoric man.

REVIEW QUESTIONS

1. Why is this called "an imaginative true" story?
2. Tell how the prehistoric man secured a spark of fire.
3. What did he think of it? Why?
4. What happened next probably?
5. Had the man ever seen a forest fire?
6. What had caused it?
7. Tell of the discovery of fire for warmth.
8. What things did these men learn about fire? How?
9. Did this story interest you? Why?
10. Tell this story in your own words.
11. Why will the stone called "flint" make a spark when struck? (See the word "flint" in the encyclopedia.)
12. Was flint useful in making a fire before matches were invented?
13. How were the first guns fired? (See the encyclopedia.)
14. What causes the fire to burn?
15. Why must a small fire have air in order to burn?
16. Why will coal burn?
17. Why will a rock not burn?
18. Make a list of the useful purposes of fire, such as heating, cooking, etc.
19. If fire gets beyond control, what is the result?
20. Have you heard the old saying that "fire is a useful servant, but a cruel master"?
21. Is this true? How is it true?
22. Do you know how to start a fire with bamboo sticks? Tell about it.
23. Why will a magnifying glass start a fire?
24. Why will water "put out" fire?