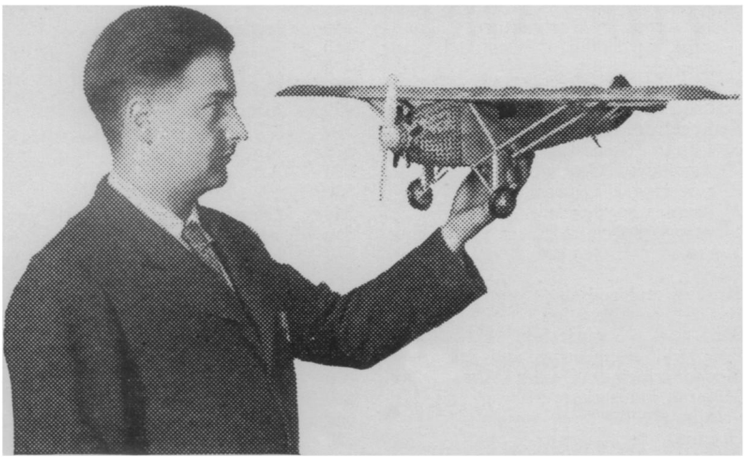
AVIATION

Building and Flying Model Airplanes



Model of Lindbergh's Plane

This is the twelfth of a series of articles by Paul Edward Garber, telling how to make model airplanes. Mr. Garber is in charge of aeronautics at the Smithsonian Institution.

The making of scale models requires a few more tools than are needed for scientific models. A small vise, a hand drill with a few small drills such as number 29, 35, 52 and 60, a hack saw with a fine blade, a small screwdriver, a light hammer and a soldering outfit will complete the additions to your shop.

Materials will resemble those which you have been using on the other two models but your frame, which is henceforth called the "fuselage," as that is the proper title, will be fastened together with small nails, such as No. 20-⅝". Fine wire will be used to make other joints. The fuselage sticks will require preliminary bending, as will the outlines of various surfaces. You will not experience any difficulty with the propeller, which must be made bigger in proportion than the one which Lindy used. We will use China silk to cover the fuselage and wing because it is more durable than paper. Metal fittings will be used to attach some parts to the fuselage; these can be readily made from tubing and will be described in their proper place. The wing will be made similarly to the one you recently constructed for the SS-2, but will embody special fittings for attachment to the fuselage and landing gear. As you proceed with this model you will find yourself adopting original methods in order to make a special fitting or construct some piece of "gingerbread" for the model.

These coming articles will teach you the general principles of making scale models. After finishing "The Spirit of St. Louis" you will undoubtedly want to increase your aerial fleet. This you can do readily enough. Plans can be secured from aeronautical magazines, books on airplane model making, or original manufacturer's blueprints. After a while you will become so adept you will be able to make a whole model with only a photograph and a few dimensions to start with. The model of Lindy's plane which the author constructed, illustrated above, was made with only three photographs and three dimensions available.

In constructing the model we will start with the fuselage. This will be made largely of sticks of pine wood, slightly larger than ⅛" square, and eighteen inches long. You should procure about eight of these. You will also need some of the small nails, some small staples, and some Ambroid. Also get a board about three feet long and some ten-penny nails, for making forms. A few small blocks of wood will be handy for making various parts.

Science News-Letter, November 5, 1927

CHEMISTRY

To A Freshman Nephew

I used to think theology
Was rather rough on doubt,
But chemistry with ions beats
Theology all out.

You'd better join the church before
Your course is well begun,
Because you'll need to exercise
The art of faith, my son.

—Uncle Rollo.

Science News-Letter, November 5, 1927

Tin is the only important metal not produced in the United States.

ARCHÆOLOGY

Bones Buried With Dog

The discovery of two deerbones painted red is a bit of evidence that Indians who lived in America 2500 years ago placed food in the graves of pet dogs so that they would have bones for their journey in the next world. The deerbones were found beside the skeletons of two prehistoric dogs by Dr. F. H. H. Roberts, Jr., of the Bureau of American Ethnology, who has just returned from an archæological expedition to Chaco Canyon, New Mexico.

The dogs appear to have been buried with ceremony by the Indians, said Dr. Roberts, in discussing his expedition. Whether the dry bones were painted red to fool the dog spirts into thinking there was good meat on the bones can only be conjectured.

The dogs belonged to Indians of the last days of the basket-maker civilization, that flourished in the southwest many centuries before the Pueblos, he said. Very ancient tribes are known as the basket makers, because they wove all their vessels and containers. In the course of centuries pottery making was learned.

Definite evidence of the Indians who lived at the time when the change from baskets to pottery was made was discovered by Dr. Roberts. Fifteen skeletons were found in two layers of earth. The burials in the lower level had no baskets or containers for food, such as have been found in similar burials. The baskets here had evidently fallen apart and disintegrated from exposure before time covered them with earth. But in the layer of earth above them were bodies accompanied by crude clay jars and bowls.

These skeletons of the transition period are of great interest to ethnologists who are studying the types of Indians who inhabited America in the days before the time of Christ.

Complete pieces of four bowls which could be patched together, even after so many centuries, were found by Dr. Roberts, as well as quantities of fragments of the rough, coarse clay containers made by the first artisans of the region who tried the potter's trade.

Science News-Letter, November 5, 1927

A London gardener is trying the plan of putting a small "dog tent" of glass, shaped like a bell, over each early vegetable plant to protect it from frost.