



Bounty for the Birds

► CHRISTMAS giving, it is pretty generally agreed, should not be confined to one's kinsfolk and closest friends. In times like these, when so many of our unknown neighbors are needy, our bounty must overflow the boundaries of our immediate acquaintanceship.

It may require a little sacrifice to bring a measure of Christmas cheer to our hard-pressed human neighbors, but it costs us practically nothing at all to distribute largesse to our lesser brothers, the winter birds. They will be glad of the crumbs from the table, of scraps of suet trimmed from a roast before it is put into the oven. A simple pan of water, warmed up to the temperature of good hot coffee so that it will not freeze so quickly, will be high wassail for them.

Birds will accept your gifts gratefully even if they are only tossed out onto the ground or the crusted surface of frozen snow. It is better, though, to provide some kind of feeding tray, preferably in some corner with shelter from the wind, and as well as possible out of the reach of prowling cats. Food on such a tray will not be wasted through scattering or by burial in loose snow.

Suet is especially prized by birds. It is one of the best of fuel-foods, to keep their small bodies warm against the

cold to which they are always exposed, even on relatively good winter days. This also should be secured in some way to prevent a whole lump from being carried off and monopolized by one greedy individual. Squirrels are fond of suet, too, and will steal the birds' supply if they get a chance.

Many persons make a kind of suet pudding by melting the suet, adding raisins, cracked grain and other things that birds like, and pouring the mixture into a half-coconut-shell or some other container to harden. Hung up on a wire, this is difficult for squirrels to get at, and no bird can get more than a fair beakful at a time.

A much simpler suet-holder can be made of an old-fashioned wire soap-dish. This can be hinged against a tree trunk with a couple of staples or bent-over nails, with another bent nail on the other side left free to turn as a latch. Birds are able to peck out the suet through the meshes, but squirrels find the cage completely inaccessible.

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NUCLEAR PHYSICS

Giant Magnet Assembled

Constructed for the new 400-million-electron-volt synchro-cyclotron at Columbia University, it promises to answer many questions about the atom.

► A GIANT magnet, constructed of more than 2,000 tons of steel with miles of copper coils, was assembled at Irvington-on-Hudson, New York. It promises to lead to new facts about the atom and possible new weapons against cancer.

The magnet is for the new 400-million-electron-volt synchro-cyclotron at Columbia University's nuclear physics research center on Nevis, an estate given to the university a dozen years ago by Mrs. T. Coleman duPont. Completion of the new scientific tool for probing atomic forces is scheduled for next summer. Built in cooperation with the Navy through the Office of Naval Research, it will be one of the mightiest atom-smashers in the world.

Tiny charged particles, travelling a hundred miles between source and target in the new instrument, are expected to answer some of the fundamental questions about the structure of matter. Dr. John R. Dunning, scientific director

of the project, predicted that the new high-power bombardment of the atom may produce "new isotopes which have never been studied before and which will probably have interesting properties from both the physical and chemical standpoint.

"Such information should go a long way to clear up the principles of nuclear structure," he explained.

Declaring that "the Columbia cyclotron at Nevis may open a new frontier in physics," another university scientist, Nobelist I. I. Rabi, suggested that a new attack on malignant tissues such as cancer in the body might be made with the atom-smasher.

The physicist said that highly penetrating protons, near the end of their range in the new instrument, could be used to bombard affected areas deep in the body without great damage to healthy tissue. This would be possible because the particles produce more ionization as they slow down.

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