



NOT A PAPER DOLL

But an example of the lost Indian art of biting designs in birch bark. Here is an Indian woman dancing. She is an old woman, it appears, for her shoulders droop and her knees take the bending step without any lively spring.

"The antirachitic activity of calciferol is the highest yet recorded in known units for any preparation."

Calciferol has more of this antirachitic potency than the crystalline preparation of vitamin D recently reported by the German Nobel Prize winner, Prof. Adolf Windaus of Goettingen, Germany, the British investigators state in their report to *Nature*.

Prof. Windaus has two vitamin D substances which he calls vitamin D<sub>1</sub> and vitamin D<sub>2</sub>. Calciferol is not the same as D<sub>1</sub>, but is much like vitamin D<sub>2</sub> in such physical properties as have been described. Prof. Windaus' vitamin D<sub>2</sub>, however, has approximately the same activity against rickets as D<sub>1</sub>. In this it differs from calciferol, which has much greater antirachitic activity than D<sub>1</sub>, the British scientists found. Consequently, they concluded that the two substances, calciferol and D<sub>2</sub>, are not identical.

Calciferol has been proved by them to be a direct product of the irradiation of ergosterol, known for some time as the parent substance of vitamin D. It has the same elements in the same relative proportion as ergosterol, although the structure of its molecule may be different from that of ergosterol.

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## ETHNOLOGY

## Biting Birch Bark Designs Was Indians' Lost Art

Museum Gets Specimens Covered With Delicate Patterns Which Cannot Be Duplicated by Chippewa Women Today

EVIDENCE of a real "lost art" which once flourished among Chippewa Indians around Lake Superior has been brought to the Smithsonian Institution by Frances Densmore, collaborator for the Institution. Miss Densmore, who has studied the customs of the Chippewas on their reservations, has collected about 170 specimens of the lost art. The U. S. National Museum has just acquired a portion of the collection.

The specimens are small pieces of birch bark covered with delicate patterns. They were made by Chippewa women, who took birch bark as soft and pliable as tissue paper and folded it and bit the designs with their teeth. Some of the outlines represent rows of dancing Indians, rather like the rows of paper dolls, all alike, that children cut out of folded paper. Other pieces of bark are marked with geometric patterns, like the lace mats that can be cut out of a square of paper folded again and again. When held to the light the bark pictures make attractive transparencies.

This trick of biting a design with little, neat, precise cuts is one that the younger generations of Chippewas cannot achieve, declares Miss Densmore. It is truly a lost art. Nor can the young Chippewa women keep in mind an elaborate pattern that is to be produced. That fine art of clear thinking, too, is lost. A woman of older Chippewa generations could think out a design of butterflies, leaves, beavers, or other nature forms, and then fold the bark—even as many as 24 folds—and without hesitation transfer the mental picture to the folded bark, perfect. When a young Chippewa today tries a hand at the old art, she "nibbles" the bark, leaving a heavy, patchy line, which betokens her mental uncertainty as much as her lack of dental skill.

The lost art of biting pictures in bark died out at least 50 years ago, Miss Densmore estimates. How long ago the pictures were first made is uncertain. When the Chippewa women brought out samples of the old art to show to

Miss Densmore, they told how they thought the art began.

Some woman was sitting on the ground by a wigwam or campfire, they said. She picked up a broad leaf or piece of soft bark and idly folded it and bit a few lines into it. She looked at it and showed the others. So, other women tried it, and competition arose. The art flourished especially in the sugar camps, early in spring, when birch tree bark is suitably pliant.

Miss Densmore points out that the Indian has sometimes been called lacking in purely aesthetic art. It has been asserted that Indian art was employed to make useful things beautiful. But the transparencies are evidence that the Indian could and did produce art for art's sake. The little transparencies, like water-color sketches, were handed about and displayed in the firelight of the wigwams at night, and were treasured for years by the owners, merely because it was pleasant just to look at them.

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## METEOROLOGY

## Trees Will Die Unless Heavy Rains Fall

WHILE the drought of 1930, the severest on record, has been officially "broken," the rains have been insufficient to replenish the sub-soil moisture necessary to the life of deep-rooted trees. Unless the rains this winter are especially heavy next year will see increasingly large numbers of dead and dying trees. Already many of those which line the driveways in and around Washington, D. C., have succumbed to the lack of moisture.

Latest reports from the U. S. Weather Bureau show that southeastern United States, from Maryland down to northern Florida, is at present experiencing very dry conditions. South Carolina, Georgia, and eastern Alabama are especially hard hit. Tennessee, Kentucky, northern Arkansas, and parts of Illinois, however, have had good rains.

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