



### Showers and Flowers

► APRIL showers, says the old rhyming adage, bring forth May flowers. Stated that way, this bit of folk wisdom is beyond challenge. Another form, however, that declares, "April showers make May flowers," doesn't stand up so well to critical examination.

For May flowers—and those that blossom in April, too—are made long before even the earliest of spring rains fall. The great majority of the flowers that bloom in the spring are perennials, springing either from underground rootstocks or from the woody branches of trees and shrubs. In either case they draw on stocks of foodstuffs that were made and stored during the showers and suns of last summer and autumn. So it would be more accurate to say, "June to October showers make May flowers, but

April showers bring them forth," only both rhyme and scansion are bad, in that way of stating it.

May flowers are "made" by the parent plant's activities of the previous season not only in the elaboration and storage of the food materials needed for their opening and expansion when the snows vanish and the sun grows bolder, but in the formation and stowing away of the flower-parts themselves. And the same is true of the new leaves that are beginning to appear on all manner of perennial plants. The beginnings of petals and sepals, stamens and pistils, leaf-blades and petioles were all made last summer in tucked-away, well-hidden buds.

Everything was folded up very tightly, all parts were small but capable of swift growth when the soil warms up and the roots begin to supply plenty of sap. Like the old recipe on tinned-soup container: "Just add water and serve." In general, you will find the parts of spring flowers juicier than the corresponding parts of flowers that blossom in the drier months of summer and autumn.

Without needing to know the technical physiological or ecological reasons why it happens, all of us take advantage of this preformation and storing of flowers when we force hyacinth or narcissus bulbs for late-winter blooming, or bring cut branches of forsythia, lilac or pussy-willow into the house. Impatient for spring, we compel a little foretaste of it in January or February by subjecting these buds and their stored food supplies to a simulated April.

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Ethyl alcohol, given intravenously, is reported to relieve children suffering from asthma.

**Sixteen authors, selected on the basis of their knowledge of their subjects and their ability to explain them to the general reader, are writing 22 chapters on "The Meaning of Mathematics", ranging from beginning algebra through graduate courses.**

**These articles began running in the Mathematics Magazine of March-April 1948. This magazine is published bi-monthly, except July-August. Its editorial policy is to make mathematics understandable. Some call the above chapters "Understandable Chapters in Mathematics". Subscription price is \$3.00. The present volume plus the March-April and May-June issues of the previous volume can be had for \$4.20, as long as the back issues last.**

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### NATURAL RESOURCES-ECONOMICS

## Formula To Improve Neglected Areas

► UNDERDEVELOPED areas of the world can be made better homes for their people, but the process is going to require time, much more knowledge of the regions than we now possess, and a great deal of patience by both "improvers" and "improves".

These were points of agreement between two of the speakers at the Massachusetts Institute of Technology Mid-Century Convocation on the Social Implications of Scientific Progress, Pierre Ryckmans, Belgian representative on the U. N. Trusteeship Council and formerly governor-general of the Belgian Congo, and Lord Hailey, chairman of the British Colonial Research Committee and formerly governor of the Punjab.

"The standards of life of any people," Lord Hailey pointed out, "must in the long run depend on two factors, the natural resources of the country, and the capacity of the people to make the best use of them."

In underdeveloped areas as represented both by the present British colonies and by equatorial Africa, there are serious lacks in certain important resources, and large gaps in our knowledge of resources known to exist. Comprehensive surveys of resources are needed before any large-scale program can safely go ahead, the speakers agreed; and Lord Hailey added that outside help, such as that rendered recently by American geologists, is being welcomed.

In developing these resources, one runs into the dilemma of outside capital. Because of the risks, the foreign investor is likely to demand high returns; because of his demand for high returns, the risk of expropriation increases. As a possible way out, Mr. Ryckmans suggested the working out, under United Nations sponsorship, of an international code of foreign private investment, aiming at justice and fair practice for both sides.

In meeting the problems presented by the peoples of underdeveloped areas, both speakers said, it will be necessary to do a good deal towards improving general health by medical and sanitary aid, and towards raising the general level of working efficiency by securing ampler and better balanced diets.

This, however, will be only a beginning. There will have to be great improvements in education and technical training, to enable the peoples of these areas eventually to get along without foreign assistance. And some of the peoples, notably those of tropical Africa, will be starting from away behind scratch, for their own cultural traditions provide no foundation at all for efforts at self-improvement. The educational process therefore will require much time as well as much patience.

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