

NATURE MAGAZINE

VOL. 24, NO. 6 • 35c



DECEMBER • 1934

FLOWERS OF THE BIBLE

Pauline Rosenberg

A DESERT NATURE TRAIL

Julia P. Ruopp

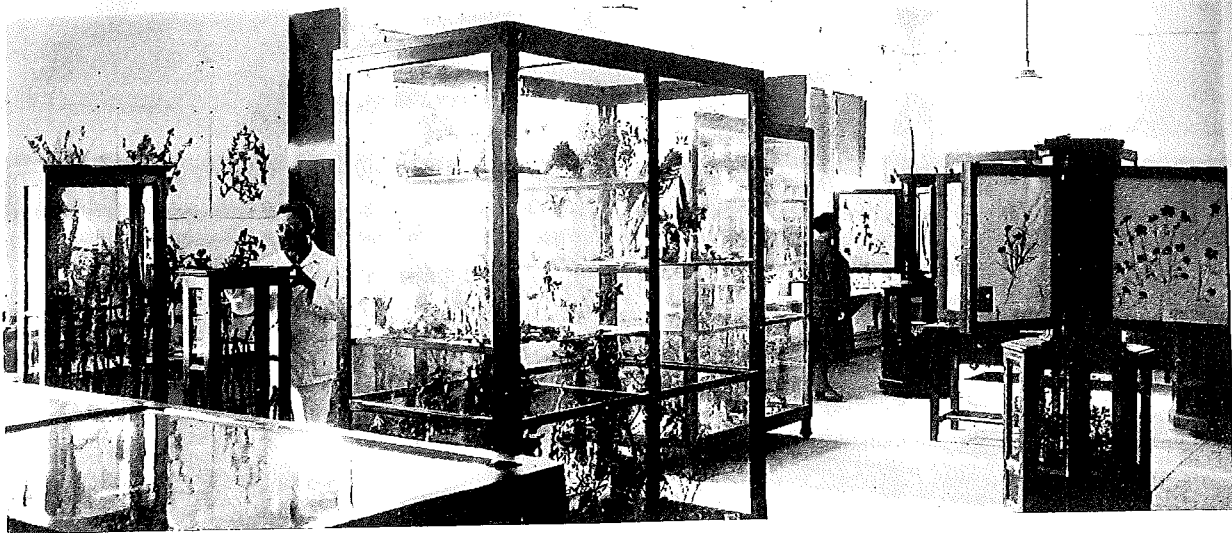
WINTERS THAT ARE REMEMBERED

Charles Fitzhugh Talman

TAURUS, A CONSTELLATION

Isabel M. Lewis

SIXTEEN PAGES OF NATURE
PICTURES IN ROTOGRAVURE



THE MUSEUM OF BIBLICAL BOTANY AT THE HEBREW UNIVERSITY IN JERUSALEM

Here the specimens collected by Dr. Ha-Reubeni are displayed. He has also completed a monumental work, illustrated in color, based on his studies. This is to be published in Hebrew but there is the hope that publishers will also see the possibilities of an English edition

FLOWERS OF THE BIBLE

They grow today as they did in ancient times

By PAULINE ROSENBERG

ONE must visit Palestine to realize how close the Bible is to Nature; how the land in all its changing aspects—the animals, the birds, the trees, and the flowers of the Holy Land—are reflected in its pages.

The Bible is full of allusions to flowers and plants, but how much do they mean to the average reader? When he reads in the Song of Songs, "I am the rose of Sharon and the lily of the valleys," or, in the New Testament, "consider the lilies of the field," do these lines call up any definite picture? And if so, is it a picture of flowers as they actually grow in Palestine? How much more these lines would mean, if we could see the flowers referred to!

Dr. Ephraim Ha-Reubeni, now Professor of Biblical Botany at the Hebrew University in Jerusalem, decided many years ago to go to the fields and valleys, the hill-sides and meadows of Palestine to find and identify the plants mentioned in the Bible. This was no small task. It required not only a thorough knowledge of botany, but a keen understanding of Hebrew philology, a true scientist's curiosity and patience, and a poet's enthusiasm and imagination.

In addition to all these gifts, Dr. Ha-Reubeni has a wife whose interest in the subject is as keen as his own, and who not only has shared the labor of collecting and analyzing, but who contributed a special talent that has made it possible to pass on to others in the most vivid possible form the information they have gleaned. For Mrs. Hannah Ha-Reubeni invented a remarkable process of preserving flowers in their natural form and color, so that they appear almost as though they had been freshly picked.

The results of years of devoted effort on the part of these two plant lovers and experts are seen today in the Museum of Biblical Botany at the Hebrew University.

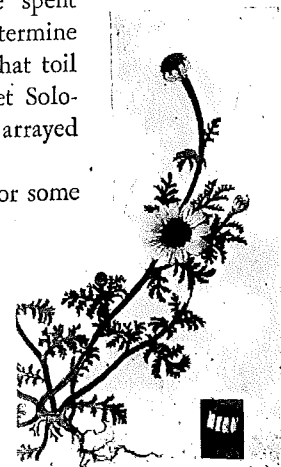
Here one can see the real rose of Sharon, a plant still to be found in all its beauty on the flat plain of Sharon that lies along the Mediterranean coast. The term "rose," however, is a mistranslation. It is not a rose, but a tulip, *Tulipa montana*, a showy, deep red flower with a black center. It belongs to the lily family and may well be called "lily of the valley," though it bears no resemblance to the modest white flower we know by that name.

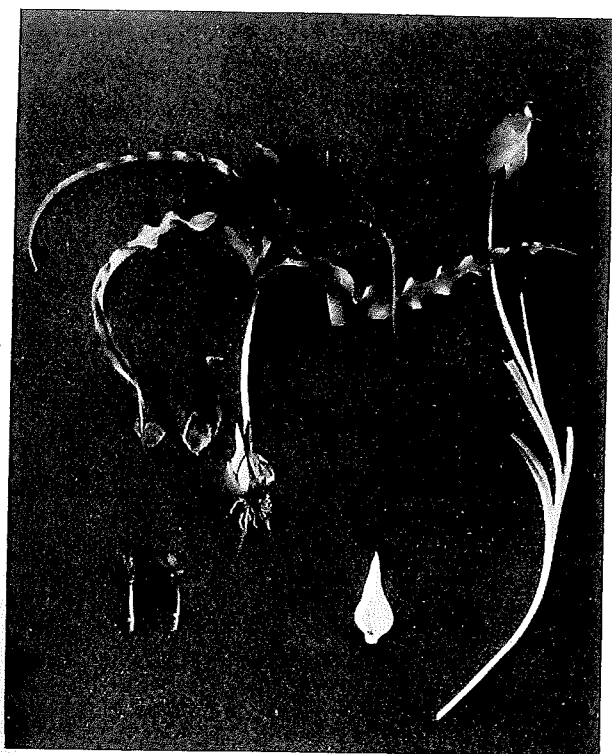
On the other hand, the flowers called "lilies of the field" in the English version of the New Testament (Matt. vi, 28-30 and Luke xii, 27-28) are not lilies. Dr. Ha-Reubeni felt certain that the reference must be to some specific flower and he spent years of research trying to determine just what were these lilies "that toil not, neither do they spin—yet Solomon in all his glory was not arrayed like one of these."

Most scholars had sought for some

THE COMMON DAISY FOUND IN THE FIELDS OF THE HOLY LAND

It is believed that this, rather than some showier flower, is really the one referred to in the passage about the lilies of the field





THE ROSE OF SHARON IS NOT A ROSE

It is, instead, *Tulipa montana*, a tulip with a showy, deep red flower with black center

flower of showy size and color, red or purple, perhaps, like the royal robes of Solomon. Dr. Ha-Reubeni thought this was a mistake, since the words of Jesus, "And yet I say unto you," would seem to indicate that he was referring to some more modest flower, whose beauty was not so apparent but must be pointed out to his listeners. Such a flower would be more in keeping, too, with the esthetic taste of Jesus. Among the most ancient translations of *Krion agrion* (lilies of the field) Dr. Ha-Reubeni found that of Dioscorides, who translated it *Abib labon*, an ancient Hebrew name meaning "white flower." Furthermore, according to Dr. Ha-Reubeni, not enough attention has been paid to the verse, "If God so clothe the grass of the field, which today is, and tomorrow is cast into the oven."

The use of the term "grass," and the phrase about casting into the oven, as well as esthetic and philological considerations, led him to the conviction that the flower referred to is the common daisy, *Anthemis palestina*, which dots the fields of Palestine after the rains. The flower, Dr. Ha-Reubeni points out, is "beautiful at all hours of the day, even when old and drying. When it has dried up, it is gathered with the dried grass and cast into the furnace." And, he further reminds us that "the daisy has a crown, which gives special aptitude to the comparison with Solomon, the crowned king."

The Hebrews, like the Greeks and Romans, borrowed many of their art forms from plants and flowers. The seven-branched candlestick, which has come down through the ages as a traditional Jewish symbol, and is known to the world at large through its representation on the arch of Titus in Rome, may be here traced to its lowly

origin in the sage plant, *Salvia*, found in the mountains and hills of Palestine. This plant, it is seen, has almost exactly the form of the sacred candlestick, with its central stalk, from which symmetrical branches curve upward on either side. On each branch are seen "knops"—that is, "buds" or "knobs"—and flowers, such as those mentioned in the description of the candlestick wrought of gold for the tabernacle (Exod. xxxvii, 17-22).

Many Hebrew personal names are taken from names of plants. Interesting examples are shown of well-known Biblical names derived in this way, such as Rimmon, meaning pomegranate, and Tappuah, apple. The name Korah, which occurs so frequently in the Bible, is also the name of a plant. The word *korah* in Syriac and Aramaic means "bald-headed" and it was formerly supposed that the men bearing this name were so called because they were bald-headed. Dr. Ha-Reubeni considers it improbable that a mother would give her son this name. He thinks the child was simply named after the flower. Why the flower was so named is apparent from one glance at it. The plant, identified as the *Matricaria aurea*, or feverfew, is almost exactly like the common daisy, already referred to as the "lily of the field," except that the greenish yellow flower head is not surrounded with rays. It is literally "bald-headed."

In addition to plants mentioned in the Bible and in the Talmud, there is a section of Jewish and Arab Plant Lore, showing many plants used in medicine and industry and others connected with the folklore of these peoples. For instance there is the *Thymelaea hirsuta*, from which the Bedouin makes a rope (*burdj*) to fasten jars of water

SALVIA IS THE SOURCE OF SYMBOLS

The seven-branched candlestick is patterned after it and is a traditional Jewish symbol



or packs of various kinds atop his donkey or camel.

One of the plants often mentioned in the folklore is the Dead Sea fruit or apple of Sodom, *Solanum coagulans*, found near Jericho. This plant bears purplish flowers and fruits like small apples. When an insect has entered this fruit and fed upon it, the inside is reduced to dust, and then the fruit, just as the stories tell, literally crumbles at a touch.

Among poisonous and medicinal plants are the leadwort, *Plumbago europaea*, and the caper, *Capparis spinosa*, the latter, with its white petals and long fringe of purple stamens, often seen hanging from walls and rocks in and about Jerusalem. Another group comprises poisonous plants used by the Arabs to catch fish. Included among these is the cyclamen. This plant, with its dainty flowers poised gracefully on their stems, their turned-back petals exactly the color of orchids, would seem to be destined

for more esthetic purposes than the stupefaction of the life history of many plants is traced through various stages of development—the seed, the tiny plant, blossom, fruit, and seed again. In many cases, too, are shown the insect whose life is bound up with that of the plant. Some flowers last but a day and their life history is told hour by hour.

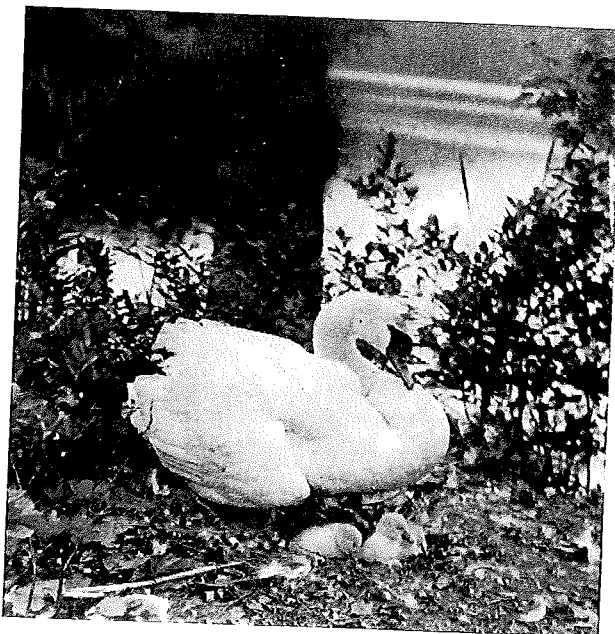
We acclaim the archeologist for every fragment that turns up that gives some clue to the history of those things that produced the Bible and have had so great an influence upon the world. But, after all, he works with dead things. Professor and Mrs. Ha-Reubeni, in the Museum of Biblical Botany, work with living things—plants that flourished in the days of Solomon and of Jesus and are still growing today—not only making the Bible more real, but giving us a wonderful sense of the continuity of life and of the comforting fact that truths are eternal.

Kate Becomes a Mother

By WILLIAM H. EDWARDS

KATE, whose life has been full of tragedies, is now a happy mother swan. Mating has been most difficult. It has taken eight swans to hatch three cygnets.

In 1925 two gorgeous white swans were presented to me. I was most eager to see these swans, some day, with their babies sailing majestically over the waters of Green Pond at Sherman, Connecticut. Nothing developed over a period of five years so two additional swans were purchased. One day the four flew away, their wing feathers had grown faster than we anticipated and they lifted themselves from the water and were on their way. It took several days to find them. An ignorant hunter had killed one—as the result of his shooting Kate was left with a broken wing and the other two were never recovered. Kate took her place on the lake again—lovely indeed. A mate was attempted but he walked out—deserted her. Not dismayed I purchased another but it died of pneumonia on the ice near a running brook. Again I sought the perfect mate. The newcomer brought hope. Kate made her nest. Both swans sat on the nest and shortly eight eggs were being warmed for what I dreamed would be cygnets. Forty-five days passed. No new sign of life appeared in the nest. I let them sit longer. Finally when both swans were off the nest an expert examined one of the eggs—yes, all of them, and none was fertile. Upon close examination much to my surprise and to the amusement of



everybody the expert discovered that the new swan was a female. What a calamity.

The expert then resolved to superintend the selection of the next swan. Finally from Milwaukee came a real mate, who became the father of these cygnets. Kate made her nest, laid five eggs and up and down the shore of the lake alongside where Kate was setting patiently, the male swan patrolled the beach against all comers and he would hiss and rush towards a person in a boat or on the shore, with his

feathers ruffled up. Surely a real protector. When I told the expert of this he said "Kate will surely produce babies as there is every evidence on the male's part of a perfect union."

Yes—three cygnets came—two of the eggs were not fertile. What a lovely sight to see Kate with her babies. They took to the water the second day. What a parade it was. The papa leading—then the three swannies—then Kate close behind. Grandest still was the spectacle to see two of the babies climb up on Kate's back and try to conceal themselves under Kate's broken wing.

Such happiness could not last. One of the little cygnets died and another a few days later. Some water animal or a snapping turtle made an attack upon its neck. The last remaining one is strong and healthy, growing larger every day. Let's hope he lives to be eighty years old as they say swans do.