POMPEII.

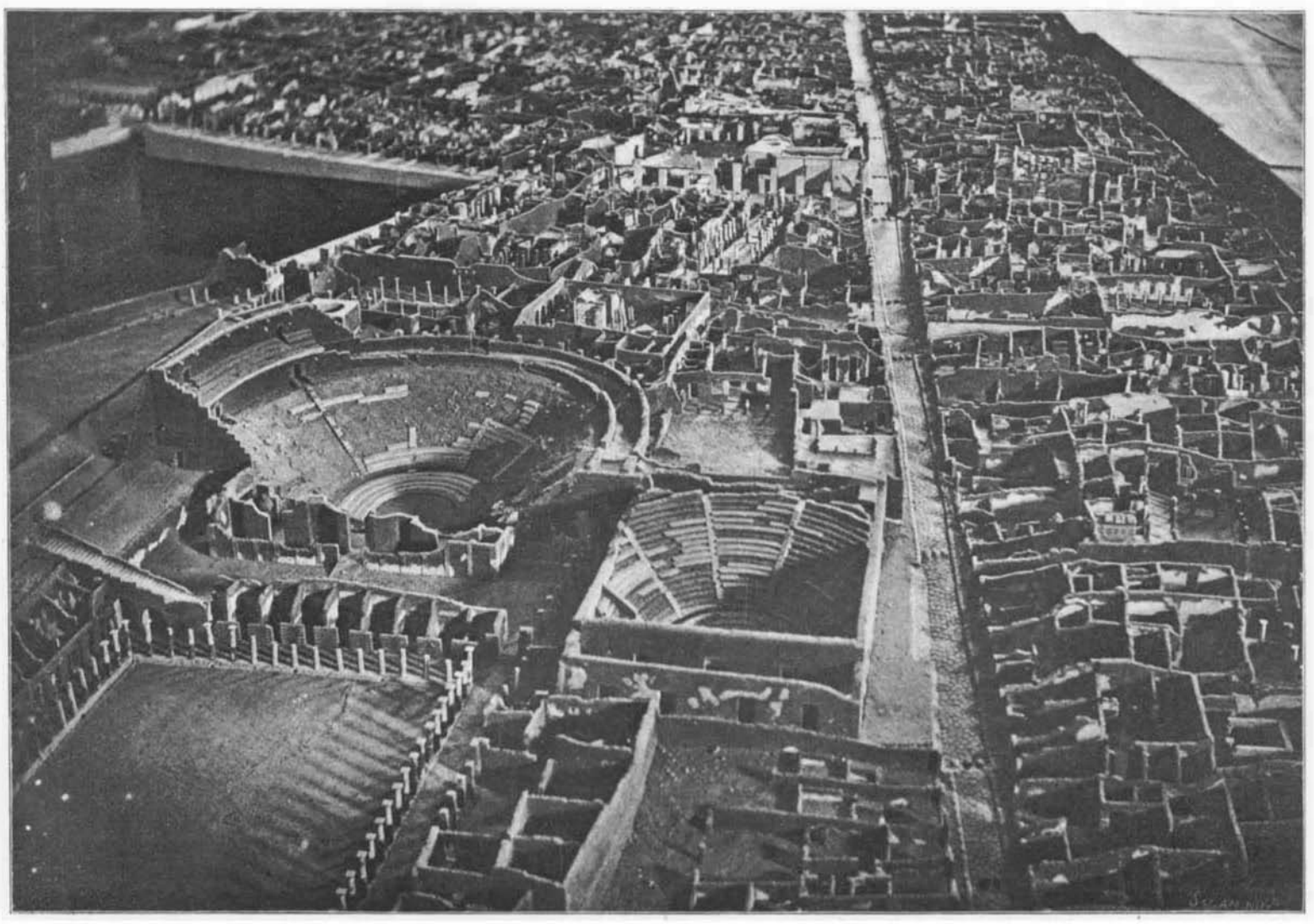
With the long-drawn-out tragedy of the West Indian eruptions being now enacted before our very eyes, the parallel disaster that happened to the Roman seaside resort of Pompeii takes on an added interest, in spite of the interval of nigh upon two thousand years that has lapsed since the city was buried. The destruction of Pompeii differed from that of St. Pierre in that while the modern town was practically razed to the ground, the buildings of Pompeii were left standing, although they were buried entirely out of sight by the falling volcanic ashes.

There is no city in the antique world of which we know so much as Pompeii—a place whose sudden extinction was, perhaps, the most important event for Roman archæology which could have occurred. The literature on the subject is most extensive, and we have in one bibliography of the subject no less than five hundred titles.

Pompeii in the old days lay nearer the sea and the River Sarno than at present. It stood on an elevation a third of a mile from the sea, offering a charming spot for a sojourn or a permanent residence, so that it is little wonder that Pompeii was so popular with the Romans. We know very little of the city prior to its destruction except that the inhabitants engaged in commerce and agriculture, and did quite a business in millstones. At the time of the great eruption of 79 A. D., the population was a very mixed one.

In A. D. 63 the city was visited by a violent earthquake which threw down most of the buildings in the city, and there was just about time to rebuild the public buildings when the great catastrophe occurred. This was perhaps fortunate, because now we have the remains of the city built nearly all in one period. The damage was done by the volcanic ash and pumice made into a kind of muddy rain, combined with earthquake shocks. The woodwork of the buildings was not set on fire, but was so desiccated and charred that it has not been in most cases preserved. There is every indication that a copious rain fell with the ashes. It is estimated that 2,000 persons perished in the catastrophe. The city formed an irregular oval four-fifths of a mile long and two-fifths of a mile wide. It was surrounded by a wall and there were eight gates. The city took its shape from the end of the old lava stream in which it lay, which ran southeast from Vesuvius. Our engraving is from a model of Pompeii which gives a much better idea of the city than can be obtained in any other way. The visitor is supposed to be looking from the Stabian gate. The theater or colonnade, used as a barracks for gladiators, is on the left and is shown with the columns of the colonnade. Directly beyond, will be seen the termination of the triangular Forum, while in the center are two theaters known respectively as the Large Theater and the Small Theater. Back of the Large Theater is an open-air gymnasium and the Temple of Isis. The street which is so prominent an object is the Stabian Street. The streets were laid out with great regularity and the public buildings form two groups, one lying about the Forum and the other is the group which we have just described. The Forum measures 497 by 156 feet, including the colonnade. No vehicles of any kind were permitted in it, as is shown by the upright stones at the streets, which bar all passage to chariots or carts. Gates were provided, so that even pedestrians could be kept out if it was thought desirable. The Forum was given up to temples, markets and buildings connected with the administration of the city. The principal buildings were the Basilica, the Temple of Apollo, the Market Buildings, City Treasury, the Temple of Jupiter, the Sanctuary of the City Gods, the Temple of Vespasian and the Voting Place. The Baths of Pompeii were naturally on a small scale, but owing to their excellent preservation and the certainty with which the use of the various rooms can be assigned, we derive from them most of our information regarding the arrangements of ancient baths. The Amphitheater lies at a distance from the other excavations. Its length is 444 feet, breadth 342, and is small compared with other amphitheaters, but was naturally large for the town, so that only a part of it was provided with seats. The houses of Pompeii are worthy of special study. They face the streets, which are usually the average width, being 10 to 20 feet. There were sidewalks with curbing and broad ruts were made by passing wheels. Only the principal streets were wide enough for two vehicles to pass.

CYNIPS POLYCERA.



VIEW SHOWING THE PRESENT CONDITION OF THE EXCAVATED CITY OF POMPEII.

CYNIPS POLYCERA.

BY M. C. FREDERICK.

No photograph nor description can portray the delicate beauty of the home of the young *Cynips polycera*. It was at the foot of the Santa Ynez mountains, across the range from Santa Barbara, that I saw them for the first time, depending from the under side of white oak leaves like fairy bells or tiny fantastic Japanese lanterns. In the midst of a natural park, consisting mostly of magnificent live oaks which have been jealously guarded from the woodman's ax that has almost denuded the region of timber, are a few stately white oak trees. They bear a bountiful crop annually of rosy-cheeked "oak apples;" but it was only on a white oak scrub that the remarkable *Cynips polycera* was found, the insect mother who provides so curiously for her prospective offspring, evidently selecting the tender, juicy, leaves of the young tree in preference to the less vigorous growth of the mature ones.

With a leaf for a canopy these brilliantly-colored and highly-ornamental homes are easily overlooked, but an observant eye once catching the gleam of the white-and-rose, so delightfully blended, follows up the discovery until a veritable wonderland is revealed.

As not even the tiniest opening is visible through which the occupant might have entered in its earliest infancy—not to mention the access of air and food—it is hard to believe these starlike fairy bells the habitations of living organisms.

How the little grub gets inside has long been an open secret of the student of natural history, who knows that the multitudinous variety of galls found on rose bushes and other vegetation, but chiefly upon the oaks, are caused by the sting of a little fly who lays her eggs in the soft tissues of leaf or stem.

The male of some kinds of gall flies has never been discovered, hence parthenogenesis is believed to meet this deficiency in nature. The female is provided with a hair-like ovipositor snugly coiled within the body except when in use, and then it is thrust into the soft under side of the leaf and forms a conduit through which the egg is embedded beneath the surface. It is believed that an irritating fluid is also injected into the puncture which causes the strange growth known as a gall and within which the egg is hatched and the larva lives until ready to emerge into the world, when it bores its way out. How the beautiful colors originate when they are no part of the life of the tree, and what part they play in the economy of gall-fly life, no one has yet told us.

The cradle of the *Cynips polycera* has but small attachment to the leaf but spreads into a bell-shaped form, the broad end usually flat, and the rim serrated by the horn-like projections from which it takes its name. In substance it is soft and juicy like apple, quickly shriveling if the branch is detached from the