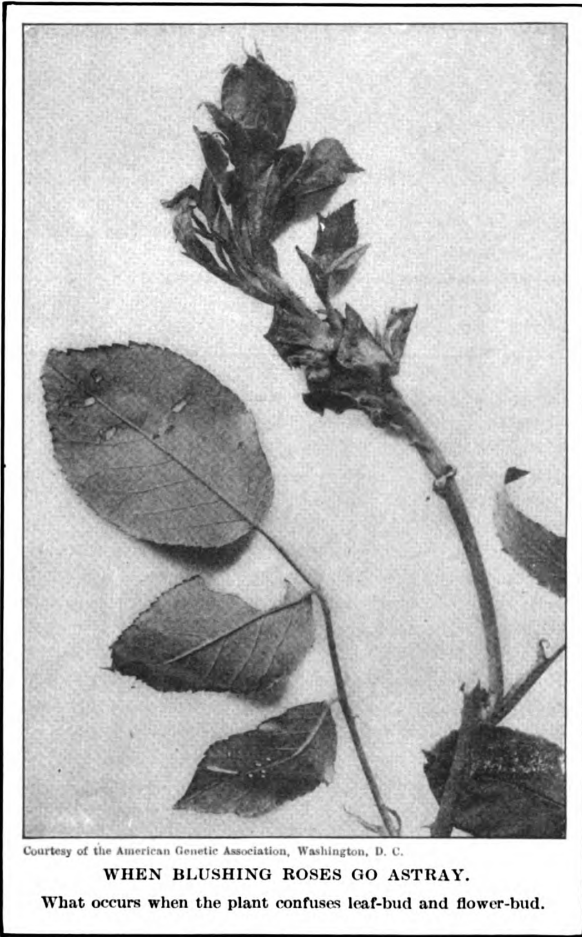


tray, each side of which forms one pole of the electromagnet. These objects, while falling, are drawn into the direction of the magnetic lines of force and, it is pointed out, are formed in mathematically parallel lines."

A DEGENERATE ROSE

POSSIBLY a rose by any other name would smell as sweet; but how about a rose that assumes a perfectly unfamiliar shape, while retaining its name and plant-relationships? Every horticulturist knows, says John C. Uhrlaub in *The Journal of Heredity* (Washington, D. C.), that the



Courtesy of the American Genetic Association, Washington, D. C.

WHEN BLUSHING ROSES GO ASTRAY.

What occurs when the plant confuses leaf-bud and flower-bud.

floral organs of a plant, such as the sepals, the petals, stamens, and pistils, are all only so many modified leaves, and that under certain conditions leaf-buds can be turned into flower-buds at an early stage of their existence.

"Thus, by crippling the plants, gardeners force azaleas or camellias to produce flowers from the buds which the plants had intended to produce only leaves. The rose is a particularly good plant in which to trace this development, for it from time to time throws out flowers that fail to attain their normal development and are nothing more than modified leaves. A bush on my estate has been behaving most irregularly for two years, always sending out freak flowers under certain weather-conditions. Sometimes the roses are only half developed, just as if they were cut in two. Last spring it produced several twin flowers, later on some flowers that were lopsided, and on August 3 I noted the branch here photographed, in which the sepals have reverted to their original leafy character, clearly showing the pinnate margin characteristic of the species. The petals, too, altho partly colored, were morphologically more like leaves than like the ordinary petals of a rose. Such phenomena are particularly common in the cabbage-roses."

THE MACHINE VERSUS THE HAND

IS A MACHINE-MADE ARTICLE always inartistic, and a hand-made object always artistic? The man who preferred his landscape in oils, "hand-painted" by a sidewalk artist in three minutes, to the machine-made print is an old jest. According to Prof. Dexter S. Kimball, of Cornell, who writes in *The American Machinist* (New York, April 15), the distinction between hand-made and machine-made goods is often nearer to that between the "painting" and the print than to the commonly accepted standard. A hand-made design may be ignoble and ugly, while one that is turned out by a machine may be beautiful and artistic. Professor Kimball acknowledges, of course, that in the higher art the machine can never compete with the man. He writes:

"The standards and conventions by which we judge the matters and things that surround us, from ethics to agriculture, have been affected by many curious and complex inheritances, yet these standards persist, by reason of inertia, long after the causes from which they came have ceased to exist and long after they have ceased to be an index of our daily life. Thus, we persist in wearing buttons on our coat-tails and coat-sleeves, tho the need of such buttons long ago disappeared. We persist in shaking hands, in defiance of well-known sanitary laws. When we subject any of these customs and usages to the cold scrutiny of reason they seem ridiculous enough, especially when they are no longer an index of our modern ideals. But they persist, nevertheless, and when they do change it is only by slow degrees and through a long period of time. Space forbids a full discussion of the effect of habits and customs, but it should be carefully noted that in manufacturing, as in all other human activities, the tendency to copy that which has been done, to make things that have the approval of usage, tho illogical as an index of our modern life, is very strong and has resulted in some curious designs. This has been so from the very beginning. Savages, for instance, in first making pottery, sometimes marked it so as to imitate the appearance of a woven basket, the production of which preceded the pot."

"Before the present era of machine production, when handicraft methods prevailed, the craftsman could, and did, 'express himself' in his product in any way he chose. Even then, however, he was always subjected to hereditary influences and vagaries of imagination that resulted in some strange designs. It is usually assumed that all of this old handicraft production was correct as to appearance, on the ground that the artist-artizan, free to express himself, was always a good judge of correct appearance.

"It is true that the highest form of artistic production in all lines has always been achieved by hand-work, and this will, in all probability, continue to be so. We are not likely to develop machines that will paint pictures or carve statues in competition with great artists. But it does not follow at all that because the most artistic results are obtained by handicraft that all handicraft productions are artistic. Much of it, indeed, is abominably crude, meaningless, and ugly, tho it brings good prices simply because it is hand-made and old. A cursory examination of almost any collection of old furniture will bear out the above statements.

"It should also be borne in mind that the best product of the old handicraftsman was not, in general, for his own use. Then, as now, it was considered an attribute of greatness to possess articles involving much cunning labor. The producer of the older days had to exist without the decent necessities of life. To-day, we are thinking of means whereby all men can possess not only serviceable, but also artistic appliances and surroundings; and this constitutes a different problem, just as it is a different point of view.

"It is commonly assumed, particularly in artistic circles, that the introduction of modern machine production, by removing the actual tools of production from the hands of the artizan, destroyed, to a large extent, the pleasure of production and the artistic sense that came as a corollary to this pleasure. Writers such as Ruskin, Emerson, and Morris have earnestly condemned our modern methods on this account, and pleaded strongly for a return to handicraft methods as the only means of regaining good appearance in manufactured articles.

"To the student of economic production such pleadings are vain and such speculation useless. The old handicraft methods have passed away forever, because the modern point of view that would have all men well educated and well cared for physi-