FORTY OF THE GREENHOUSES AT HOLLYWOOD, CALIFORNIA, HAVE ORCHID COLLECTIONS

Near Hollywood, California, is the world's largest collection of orchids. Forty greenhouses dupilcate under controlled weather conditions the native tropical habitat of the orchid. In fact, writes F. H. Coleman in "The Los Angeles Times," There are five million plants receiving the scientific care that will result in perfect orchids in the years to come.

With this mass production, one might expect orchid prices to approximate those of garden flowers, but this is not the case for the reason that those floral aristocrats, like those of the human realm, are the result of a costly background. Few who admire the dainty orchid realize that seven years must elapse from the day the dust-fine seed is sown in a laboratory flask until the first fragil blossom appears. Seven years—and every step of growth is attended with the watchful solicitude and the scientific care lavished upon a princeling of a royal house.

And this is merely the history of an individual orchid and does not count the cost of the orchid hunter who braves the jungles of the tropics in a search for new and unusual varieties, nor the scientific staff engaged in cross-breeding in an attempt to produce flowers that will meet more successfully the exacting demands of the florist's trade.

These local orchid houses are really a series of highly scientific laboratories with heat, humidity and ventilation under control. The first unit is the incubator house, a glass-roofed building lined with ling shelves filled with rows of tall flasks where the orchid seeds germinate. Here the first difficulty in raising orchids is encountered.

For years it was impossible to raise ochids in captivity. Finally it was discovered that on the roots of the parent plant there was a certain fungus which gathered food and actually fed it to the orchid seed because the seed unlike ordinary seed) is not a plant in embryo but must have this certain fungus to act as wet nurse and gather its food during the period of germination.

To provide this wet nurse in the incubator house the growers first place an agar-agar jelly in a flask containing the correct food for baby orchids. Next they sterilize the flask with the jelly to destroy any enemy life that might be present. Then with a needle they pierce the root of an orchid plant of the same variety as the seed to be planted, and with this needle, which contains the fungi, inoculate the sterilized agar-agar jelly. When the fungi has spread like a web over the jelly the orchid seed, carefully sterilized in a solution of calcium chloride, is planted in the jelly media. The flask is then stoppered with cotton and set aside on a shelf.

In a few months tiny orchid plants appear. Those plants do not have roots until four or five months old and depend entirely for nourishment on their fungus wet nurse. The baby orchid remain in the flask until they are from nine months to two and one-half years old, depending on the variety, then they are removed to the transplanting room where they are dipped from the flask with a spoon and placed on squares of wet cloth ready for transplanting. At this time they measure one-fourth inch including the root.

Pots filled with chopped fern roots are ready to receive the tiny plants and a skilled workman with two small sticks, working as deftly as a Chinaman with a pair of chopsticks, transplants the orchids to the pot without touching them with his hands. The orchids are now removed to a greenhouse where there is a slightly lower temperature and they then begin their leisurely seven year trip through the greenhouses, always under controlled weather where the temperature is gradually reduced until they emerge sufficiently hardened to survive in the ordinary dwelling.

Cut ochids from Los Angeles are shipped all over the United States. They travel by express, without ice, as far as San Antonio, Tex., but to New Orleans, Chicago, New York and Seattle they go by air mail, twenty-five orchids to a box, each with a glass, water-filled tube.

MANY INVENTIONS ARE THE RESULT OF ACCIDENTS

Necessity is not always the mother of invention. Many discoveries have been purely accidental, or hinged directly on some slender thread of circumstance.

Something goes wrong. The expected fails to happen, but the unexpected points the way to something better. Occasionally, even in some blunder or misforune, somebody gets a lucky break—gets it because he is able to recognize it when it comes along, says James M. Chalfant in Popular Mechanics Magazine.

Consider the discovery of anti-knock gasoline, for instance. "Accident had a lot to do with the discovery of ethyl gasoline," its inventor, Thomas Midgely, says.

"I was working on the theory that a colored gasoline would not knock. That isn't true, but of course I ha no way of knowing that at the time. I took some kerosene at the chemical laboratory and told the man in charge of the chemicals that I wanted an oil-soluble dye.

"What do you want to color?" he asked.

"I want to color some kerosene," I said.

" 'Well, there aren't any oil-soluble dyes in the stockroom," he replied 'but if you want to color kerosene, this iodine will do it.'

"Of all the thousands of chemicals he might have picked, by sheer chance he picked the one that turned the trick for when we used the iodine to color the kerosene, took it back and ran the motor on it—the knock was gone. Then it took seven years of hard work to find out why it killed the knock and to find the tetraethcyl lead used today as an anti-knock."

There would seem to be no connection between a cut finger and th high explosives of modern warfai but there is. Alfred Nobel, the Swedish chemist, cut his finger one day in the laboratory. Dissolving some guncotton in ether alcohol, he swabbed the cut. He had been searching for an absorbent and solidifier of nitroglycerin. And as he watched the sticky substance slowly hardening to an elastic film on his finger the thought same to him that maybe this substance would do. He mixed the extra collodion with nitroglycerin It set to a jelly. Thus blasting gelatin was discovered.

The present generation well remembers when Le De Forest introduced a small grid of wire into an exhausted tube of glass, containing two elements and known at that time as the Fleming valve. The Fleming valve had a filament which could be heated to incandescence, and a circular plate to surrounding this filament. Had it not been for the introduction of this grid broadcasting would probably not exist today.

King Camp Gillette was once told that he should try to invent something which, when once used, would be thrown away. In 1895, Gillette had the good fortune to try to shave himself with a dull razor. He put upon the idea of a safety razor and made a model of brass and clock spring. In less than seventeen years after the patent was allowed, this little contribution to modern man was earning $4,500,000 a year in profits.

The paper shopping bag, with the piece of cord running through holes in the top and down the sides of the bag and under the bottom to reinforce, it, was the product of Walter Henry Deubener.

A shipping tag in its first form had a hole punched at one end. Dennison pasted two small rings of paper around this hole to reinforce it and realized a new paving industry. Buttons were, at one time, sewed on shoes and easily ripped off. A man by the name of Heaton invented a small wire staple to take the place of the sewing operation, and realized a fortune. A small hump, in a piece of wire, was the forerunner of two industries. One of these humps was put in a small wire hook which together with an "eye" was used to fasten women's together. The hairpin with a hump alsa made a fortune for its inventor.

SUCCESS COUNTS IN THE U. S. SAYS PROF.

Paris, Aug. 12—Prof. Bernard Fay, speaking on the psychology of the American people before the French Academy of Moral and Political Sciences, stated that "Success counts for more than quality in the United States, for a man is judged by what he is."

Despite the fact that the French professor believes that American morality is materialistic, he states that it stimulated activity in which the individual forgets himself more easily than in pleasure.

WASTE PAPER A STORE ASSET

Boston, Aug. 13—Conversion of an annual expense of at least $5,000 into an income of more than $6,000 a year was accomplished here recently by a group of retail stores, including some of the largest department stores, when they signed contracts to sell to a Chicago firm waste paper which previously they had paid to have removed.

The biggest pie in the world was baked at Traverse City for the cherry festival, a pie 14 feet in diameter, a foot thick and containing 20 bushels of cherries. A pie like Goliath's mother used to make.

TORTOISE EGGS REQUIRE MONTHS TO HATCH

Worcester, Cape Province, South Africa, Aug. 12—A question which has long puzzled naturalists, how long it takes to hatch tortoise eggs has been answered by G. H. W. Keyter, deputy mayor.

It is 13 months and 6 days.

Mr. Keyter watched a tortoise lay eggs. He placed wire netting over the eggs and waited more than a year until five baby tortoises appeared.

It isn't what the neighbors say that matters so much. It is what your conscience says.



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