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## FAMILY FUN!

Come on out to Dutch Wonderland. The great amusement park with more than just great amusements. Ride the Monorail. Or make a splash in our Log Flume. Enjoy a dolphin show, tour the Wax Museum and our Botanical Gardens or get in on the fun of All-America's Family Games.<sup>6M</sup>

And that's only the beginning. It's a fun-filled <u>must</u> at family prices. \$3.95 and \$6.75 (Group Rates available). For more information, call (717)-291-1888.

### Dutch Wonderland

Rt. 30, 4 miles East of Lancaster, Pennsylvania, in beautiful Pennsylvania Dutch Country.

Open Daily: 10AM-8PM Sunday: 11AM-6PM

## Something Wonderful has Happened

Through the research efforts of a few men and women working together to find a way to stop air pollution caused by smoke, we have reached our goal. We have developed an all organic solution that will completely stop the devestating pollution of the air caused by smoke.

Our solution, together with specially designed equipment, will stop smoke pollution.

Our method has proved effective in controling the smoke of the following materials: all oils tested; coal; wood; paper; rubber; vinyl; and gasoline.

So far we have not found any material that is not effected by this new miracle organic solution. It completely stopped all smoke when properly applied.

As a result of research conducted to stop smoke pollution some other valuable materials have been discovered. These were found to be far more effective than products that have been in use for many years.

One such material is now available for public use. FORMULA 12 is a solution which has been proved effective in putting out oil, grease and other petrolium fires. FORMULA 12 does an excellent job on most any fire that could break out around the home.

FORMULA 12 is available in 15 ounce aerosol cans for home use, and for Fire Companies and industrial users it is available in one gallon and five gallon cans and 55 gallon drums.

FORMULA 12 is completely safe for use anywhere. It is so harmless that if a child were to accidentally drink some of the solution there would be no harm done.

If a person were trapped in a burning vehicle, FORMULA 12 could be sprayed into the fire and on the victim without any harm. In fact, the ingredients in FORMULA 12 are soothing to a burn.

FORMULA 12 are soothing to a bu FORMULA 12 is manufactured by:

### Clean Air Products, Inc.



# A Tale of Tw

Reprinted from the April, 1980, issue of SUSQUEHANNA MAGAZINE. We decided to run this article after noticing the large number of cidadas present this year.

by Ken Wolgemuth

Far into the darkening, deserted countryside a red clay road leads nowhere anybody cares to go anymore, and now, nearly overgrown by weeds, lies in silence in the mid-summer twilight. An ancient apple tree, gnarled and also long-neglected by man, grows by a bend in the empty track and stands in sharp silhouette against the indigo of the western horizon. The stage is set.

The houselights dim as the last hint of royal blue fades from the western sky; the orchestra—katydids, crickets, grasshoppers, owls, whippoorwills, frogs—strikes up the overture; the moon, looming over hills to the east, shines its spotlight onto the stage.

The curtain rises.....

In her tiny, lightless chamber nearly two feet into the earth beneath the old apple tree *Tibicen* stopped feeding and extracted a needle-like proboscis from the root that had furnished her dinner of sap. It was time now, and she waited.

She was by no means pretty, looking much like an overweight brown jellybean with six legs and a sucking beak, but for the past two years the only eyes laid on her belonged to fellow burrowing creatures, many even more grotesque than herself.

Tibicen was the nymph of Tibicen linnei, the annual cicada, and since hatching two summers before she had prowled the perpetual darkness of her self-dug tunnels, making her way from root to root, sucking sap, molting and growing.

But now, as the moon swung over the countryside, *Tibicen* was drawn irresistibly upward, and slowly dug her way out into the world of grass and flowers and starlight. So strong was this impulse to battle gravity that she kept right on climbing, using her powerful forelegs to drag herself—amid scores of fellow nymphs brought out by the same insistent call—up the trunk of the gnarled tree.

She climbed until an inborn timer directed her to stop, then, digging in with her huge front claws, anchored herself firmly to the bark. Shortly, waves of muscular contraction began to sweep along her body from abdomen to thorax, building up pressure until finally her skin gave way, splitting neatly down the back...

As the sun rose gold to the whistling of woodchucks, another insect prepared to leave one element behind and embark on a new existence. Eighteen inches down in the red clay bank of the road cut the Cicada-Killer wasp (Sphecius speciosus), now in her pupal stage, began to twitch in the plum-sized earthen chamber where she'd spent all eleven months of her larval life.

Eventually the pupal case split and, cutting through the surrounding cocoon, the wet and rumpled adult Sphecius dug her way to the surface. In the summer sunlight it wasn't long before her wings had expanded and her body—all inch and a half of it—had dried to a polished, yellow-banded-black.

Having fasted for something over ten months, her first priority was finding a meal, so Sphecius quickly took wing in search of the handiest flowers. As an adult she would feed on nothing but nectar and perhaps some fermented sap. The young she would eventually produce, however, would require a somewhat more substantial fare....

The sweat-suited jogger, out for a morning workout, plodded up the gentle slope to the apple tree and stood panting, hands on his knees, in its meager shade. Catching his breath, he straightened up and spotted on the trunk the amber husk that had once contained Tibicen and that now preserved, as precisely as a plaster cast, her homely visage. Plucking the slough from the bark, the jogger recalled collecting such "locust shells" as a youngster and proceeded to pocket the souvenir-just for old times' sake-before trotting off once again. He never noticed, and if he had would not have recognized, the empty shell's former owner, now poised on a branch directly overhead.

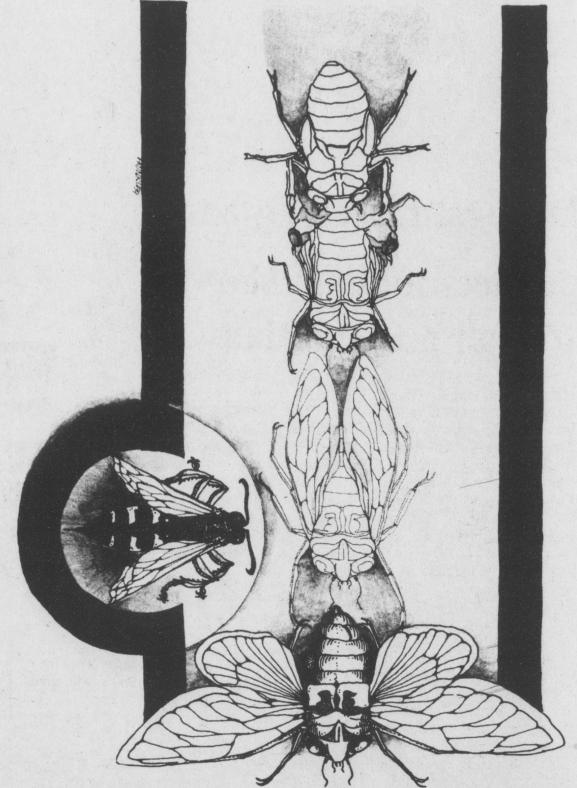
Pale, crumpled and defenseless, she had emerged into the moonlight, leaving an obsolete skin and the greater part of her life behind. Hanging upside-down, pumping fluid into her adult body and new wings, she had slowly dried in the night breeze, vulnerable for many hours to any creature that might consider making a meal of her. Lower on the trunk, ants had come upon another such newly-freed cicada, had swarmed over the helpless insect, and had dragged her, still kicking feebly, off into the darkness.

But now the sun was up, and having survived her first night *Tibicen* would be immune thereafter to the attacks of ants, being hard now, and dry, with two pairs of sparkling, membranous wings angled rooflike over her back. As a nymph she had been vaguely repulsive; as an adult, two inches long and a blinding iridescent green, she looked downright dangerous. The cicada posed a threat to no one, however, for being a true bug (in the order Homoptera) she had no stinger; she lacked even a pair of jaws. As the jogger shrank to a blue spot in the distance, *Tibicen* raised her jointed beak and poked it deep into the branch, intercepting the liquid food meant to nourish apple tree tissues and drawing it into her own hungry body.

It wasn't long after Sphecius flew off in search of her first meal that she was intercepted by a male of her species and inseminated. As is often the case among wasps, the male cicada-killers emerge several days before their prospective mates. After a long drink of nectar, each takes up a position on some conspicuous plant and waits for the females to show themselves, racing to fertilize as many as possible.

Sphecius soon found her breakfast in the form of a nearby thistle, and after drinking her fill from the blossom returned to the road cut to set about about preparing a nest. Selecting a suitable site she began to dig downward, flinging soil out to her rear with swift, bicycling kicks from her hind legs. Around her, fifty or more fellow female cicada-killers were excavating their own burrows, brought together not so much out of any desire for companionship as by a plot of ground of just the right

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Drawing by Floyd Runkle
Floyd Runkle is a 1979 graduate of Donegal High School.