



JULES VERNE'S TOMBSTONE AT ALIENS
PORTRAYING HIS "SERIALS"

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In Our Next Issue:

PIRACY PREFERRED, by John W. Campbell, Jr. In this story, as in his previous ones, our young author offers us a rare combination of accurate science with excellently written fiction—which makes a perfect **AMAZING STORY**. This time, Mr. Campbell looks into the future of aviation—a subject which at the present time compels a universal interest.

THE NON-GRAVITATIONAL VORTEX, by A. Hyatt Verrill. When we discover what gravitation is, scientists will perhaps find it less impossible to annihilate gravity. This is an extraordinary tale, dealing with vortices that develop a strange phenomenon—the local annihilation of gravitation.

ELEMENT No. 87, by Ralph Linn. Chemists have determined from various considerations that there can be only 92 original elements in the chemical scale. Only comparatively recently have a goodly number of these been discovered. But there still remain a few about which chemists know little or nothing, and there is no telling what possibilities an undiscovered element might hold. Our author uses this idea in an exceedingly clever bit of scientific fiction.

THE UNIVERSE WRECKERS, by Edmond Hamilton. (A Serial in 3 parts) Part II. In this instalment our four travelers experience many dangers with the extraordinary beings of Neptune, which is nearly 3 thousand million miles from the sun, but they learn the source of the power that has caused the increased rotation of the sun, which threatens the life of all the nearer planets in the solar system.

FLAMINGO, by Clarence Edward Heller. Much has been said in the daily journals of wonderful robots, the direct successors of the almost historical "steam man" of two generations ago. But think what would happen if not only the servant and the manual worker were replaced by robots—if even our great singers and famous actors were likewise replaced in such manner. Our new author has woven a charming extravaganza of the amusements of the future—not so very far in the future, at that.

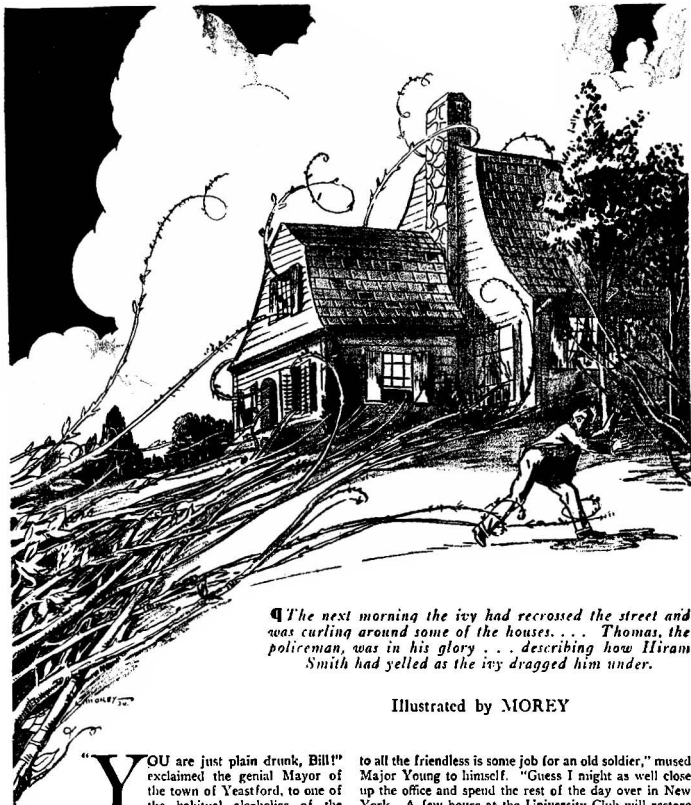
In Our May Issue:

- The Universe Wreckers**
(A Serial in 3 parts) Part I
By Edmond Hamilton..... 102
Illustrated by Wesso
- Synthetic**
By Charles Cloukey..... 130
Illustrated by Morey
- Vis Scientiæ**
(A poem)
By Miles J. Breuer, M.D..... 139
- The Gimlet**
By Victor Endersby..... 140
Illustrated by Morey
- The Noise Killer**
By A. M. McNeill..... 151
Illustrated by Morey
- Madness of the Dust**
By R. F. Storz..... 154
Illustrated by Wesso
- The Ivy War**
By David H. Keller, M.D..... 160
Illustrated by Morey
- What Do You Know?**
(Science Questionnaire)..... 169
- A Circle of Science**
By Stanton A. Coblenz..... 170
Illustrated by Morey
- Through the Veil**
By Leslie F. Stone..... 174
Illustrated by DeFaux
- Discussions**..... 181
- "The Pea Vine Mystery" and "The Dead Sailor"**
By A. L. Hodges..... 182

Our Cover

This month illustrates a scene from Part I of the story entitled, "The Universe Wreckers," by Edmond Hamilton, in which the four travelers, fitted out in their space-walker suits, are making the necessary repairs to their space-flier, which sustained some damages while going through the asteroid zone on their way to Neptune.

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¶ *The next morning the ivy had recrossed the street and was curling around some of the houses. . . . Thomas, the policeman, was in his glory . . . describing how Hiram Smith had yelled as the ivy dragged him under.*

Illustrated by MOREY

"**Y**OU are just plain drunk, Bill!" exclaimed the genial Mayor of the town of Yeastford, to one of the habitual alcoholics of the vicinity. "Just a little too much this time, or you would not be talking such nonsense. Go home and to bed and you will feel differently about it tomorrow, and laugh at yourself when your dog comes back from his hunt."

"I am drunk!" admitted William Coonel, "but anyone would get drunk after seeing what I saw. You go down to the old swanphole yourself and see how your nerves are afterward. Go on, Major Young, and then tell me whether I am drunk or not." He staggered out of the office, leaving the Mayor smiling at his persistency.

"This job of being Mayor of a small town and friend

to all the friendless is some job for an old soldier," mused Major Young to himself. "Guess I might as well close up the office and spend the rest of the day over in New York. A few hours at the University Club will restore my cosmopolitan viewpoint of life."

Two hours later he walked into the reading-room of the Club, just in time to hear hearty gales of laughter coming from a closely clustered group of men. When the laughter ceased, he heard a determined voice.

"In spite of your laughter," it said, "I want to repeat what I said. *The next great war will be waged between the human race and some form of plant life, rather than between different nations of humanity.*"

"You mean bally little smellers, like roses and violets?" asked a man in uniform. He was Captain Llewellen, at the present assigned to duty with the British Consul.

The IVY WAR

By David H. Keller, M.D.

Author of "The Seventh Generation," "Eternal Professors," etc.

*D*R. KELLER, being first of all a psychologist, is most interested in human behavior under given conditions—that is, human reaction. But he is also concerned with possibilities in various fields of science. Taking botany, for instance, it has been established some time ago that there are such things in existence as flesh-eating plants and other malignant flowers. We of the modern civilization have become quite smug in our feeling of safety from these dangers, that we know are considerably removed from civilized habitation. But what is there to prevent the successful transfer of such a dangerous plant, let us say, by some frustrated botanist bent on revenge? Here is a scientific fiction story that is interesting, entertaining and plausible.

"That is what I mean," answered the first speaker.

Elbowing his way through the circle of amused listeners, Jerkens, free lance reporter of a dozen wars, reached the center of the crowd, and holding up his hands, demanded silence.

"I want to report that war," he cried. "What headlines I could produce! How about this for the front page?"

"Five Divisions of Infantry in New Mexico Surrounded by the Cactus Enemy. One Thousand Tanks Ordered to Their Relief . . . Heavy Casualties in Maryland. Our Troops Gassed by Lily-of-the-Valley and Tuberosa Enemy Battalions. Generals Orchid and Gardenia Captured. They Admit That Their Morning Glory Division Was Wiped Out by Our Labor Battalions, Armed with Hoos. Patriotic Women Forging Regiments to Fight Violets and Roses. They Will Furnish Their Own Scissors. Golden Rods Massing to Attack Hay Fever Regiments."

And then the fun started and the laughter became too much for some of the older members of the Club who demanded silence. Soon the atmosphere of the place became normal. White, the plant biologist, who had been the butt of the fun, kept on smiling. But two strangers at once demanded his attention.

One handed him a card, saying, "I am Milligan, the explorer. I came across the ocean to see you."

"And I am just Mayor Young of Yeastford. I am a charter member of this Club."

"I do not know which of you I am the most pleased to meet," declared White. "Milligan has always been a hero of mine because he has gone to all the places in the

world I have wanted to visit, while (and here he turned to the Mayor) if you are Major Young, of the Lost Battalion, let me tell you that when I was a boy I saw you play full-back on the Columbia team the year we defeated Pennsylvania. Ever since then you have been a hero to me." And he extended a hand to each of the men.

"Since all three of us seem to want to know each other better, suppose you take supper with me here at the Club?" proposed Major Young. "I will arrange a little room where we can be by ourselves and do all the talking we want to do. The boys were having a lot of fun at your expense, White."

"Yes, I was foolish enough to make a statement that was unusual and of course they all gave the ha-ha to me."

"And the peculiar part about it was that that statement was the very reason for my coming here from England to talk to Mr. White," said the explorer.

"Well, let's eat and talk," exclaimed the old football player.

Later on, in the little private room, Major Young started the conversation.

"Now, Mr. Milligan," he said, "suppose you tell us just what you want to find out from this famous scientist White. Yes, you need not object to that word famous, White. I have had a few minutes to myself and I looked you up and find that you have over twelve letters after your name and are considered the authority on plant life in America. You are as big a man in your laboratory as Milligan is in Gobi and Honduras. I looked you up also and find that you have written a dozen books about places that hardly any other white man has ever visited. So, here I am, just plain Charley Young, eating supper with two big men. Go ahead with your story, Milligan."

The Englishman took his cigarette and pushed it

lighted end carefully against the ash tray. When he spoke it was with slow, carefully selected words, beautifully pronounced,—as though he were dictating to his stenographer or addressing a gathering of scientists in London.

"In the course of my travels," he began, "I have been to a great many dead cities, great, ancient cities, that once swarmed with life. I have spent weeks in places like Angkor in Cambodia, once the home of a million Asiatics, but so completely forgotten, that none knew of its existence till the Frenchman Moulout stumbled upon it in his quest for Asiatic butterflies.

"And down in Honduras I have seen the Mayan cities silently pass the centuries in the jungles; they thrust through the green forest the white marbled crests of their pyramidal temples. I have lived in those dead cities, places like Lubaantum and Benque Viejo. In all those places I asked myself the same questions: Why did they die? What killed them? In some places it seemed as though the inhabitants simply decided to migrate. But why?

"THE more I asked myself that question, the more puzzled I was. I saw something in Cambodia, and to my surprise, I saw the same thing in Central America. It was something that I thought I was sure of but it was so fantastic, so utterly weird and impossible, that I could not trust myself to put it into words. I am not like our friend White. I do not like to be laughed at. So I kept it to myself. Then, back in dear old England, I ran across the same thing; and at the same time I heard about the great work that was being done with plants by an American named White; so, here I am."

"What was it you saw in England?" asked the biologist.

"It happened when I went down to see my friend, Martin Conway. He had inherited a nice old house and a lot of money; so, he made up his mind to restore the place and live there. It was Allington Castle, near Maidstone. It might have been a nice place for him to live in, but the ivy made him stop. That entire estate was full of ivy, and on the Castle walls the growth was from six to ten feet thick and had branches over six inches in diameter. It spread all through the woods. It climbed up the oak trees, one hundred feet into the air, and literally suffocated them with its dense foliage.

"The stuff was growing all over the Castle, inside and out. Conway put a hundred men to work and it grew faster than they could tear it loose and cut it to pieces. They worked a month, and when they came back from a holiday, it was hard to tell just what they had done. It was discouraging, to say the least.

"Conway took me over to see a ruined Castle about seven miles from the one he inherited. This other Castle had literally been torn to bits. The ivy had grown over the masonry, sending its roots into every little crack. Then it had grown up to the top of the building, forming a thick mat over every square foot of the wall. Once it reached the top, it started to pull, and the whole building just crumpled, overnight. When we saw it, Leybourne Castle was just a ruin, covered so completely with ivy that all anyone could see was simply a large mound of green.

"And what made matters all the worse, it seemed that nothing else could live where that ivy lived. The woods around Leybourne, years before, had been filled with the most beautiful wild flowers and shrubs, but they were

all gone, and the little wild things, like rabbits and birds, were all gone too. That gave me room for thought. It made me see that right in England there might be as wonderful things to look into as there were in the Gobi Desert.

"Because it was not the lack of money that made Conway stop with his plans for the restoration of Allington Castle. He had the money and the ambition, but he could not get the men to work there any more. You see, three of them had taken too much liquor, and instead of going back home at the end of the day, they slept there all night, and when morning came and the Coroner and his jury, why laboring men just did not want to work there any more, and Conway had to stop. But it made him mad and he asked me to come down and visit him. I went over the entire problem with him, and it suddenly occurred to me that perhaps something like that had happened at Angkor and down in Honduras. In other words, the same horrible thought came to me, came back to my consciousness, no matter how hard I tried to ignore it. I am an explorer, not an expert on plants, so I came over here to America to see if White could help me solve the problem.

"Just talking about it makes me tremble. Think of that! I have, and I say it in explanation and not to boast, faced death in a dozen places and in as horrible ways as a man can face it, but when I think that there is a possibility that my suspicion is true, it makes me tremble. Look at that hand," and he held out his fingers to show them a fine tremor.

"That is all right," said Major Young, in almost a soothing manner—"The braver a man is, the more apt he is to feel afraid. It is not the feeling but the actions that count."

"You say that three men were killed?" asked White.

"Yes. I guess you could use that word. At least, they were dead when morning came."

"And they thought the ivy—was that the Coroner's verdict?"

"No. I do not know what he thought; of course he could not say that—not in so many words. But Conway told me how the bodies looked, and we decided to do a bit of experimenting. We drove an old cow into the woods where the ivy was the thickest and tied her to a tree. Yes, we went in while the sun was shining, and the next day, when we went back, the cow was dead—and Conway—of course he was not a physician, but he said that the cow's body looked the same as the bodies of the three dead men."

"This all happened in a poorly settled part of England. You can drive miles without seeing a cottage, and the few people who used to live there left, and some of them in a hurry, and none of them talk very much about why they left, because they do not like to be laughed at."

"Just ivy—just common ivy?" asked White, leaning across the table, and pushing aside the plates of food.

"You mean that it was just the ordinary ivy that grows as an ornament on old buildings?"

"No!" almost shouted Milligan, as he looked point blank into the eyes of the biologist. "If it had been, we would have understood. In the first place, it was big. Conway and I stumbled over branches that were over a foot in diameter, and those branches ran for miles through what had once been the woods. We never could be sure just where they started from. Every few feet the branches sent out lateral rootlets and coiling twining

tendrils, replaced every third leaf, but we never were sure that we found anything like a central root. We did find something, however, that made us think. All these big branches seemed to come from one place, and we never were able to get within a mile of that place. We located it rather accurately on our map and this is what we found.

"Ten years ago there was not a bit of ivy in those woods; but there was a large hole in the center of the forest. The maps called it a swamp-hole. It had always been there! Some of the old men told Conway about it. Tradition had it as the home of a large snake. Silly idea that. Now, here is what happened. I mean to say this is what I think happened. This new kind of ivy started to grow out of the swamp-hole. Where did it come from? Why, out of the hole. And in ten years' time it had captured seventy square miles of England. And here is the thing that makes me tremble. Nobody knows about it, and nobody is doing anything about it. Conway and I talked about that phase of it; and I came over here. How about it, White?"

BUT the biologist did not have an opportunity to answer the question then, because the Mayor of Yeastford suddenly galvanized into life, as he asked, "Were the leaves a peculiar combination of white and green? Did those tendrils wave around in the air? Do you think that they sucked the blood out of the cow?—and the three men? Did you find swamp-holes like that in Honduras?"

The explorer and the biologist looked at the ex-soldier in astonishment. At last White asked, "What are you driving at, Major?"

"Simply this. Up in the town, where I am the Mayor, we have a hole that we call the swamp-hole. And today noon a hunter came in and told me his dog had been killed down there. But he was drunk; so, I did not credit his story. But he said he saw something like a large vine come out of the hole and strangle the dog. Now do you two men suppose that the same kind of ivy is right here in America? We have a hole there at Yeastford and something is coming out of it. You said that you never saw the center of this plant, never were able to come near the real roots of it. Here is your chance. Suppose we go up to my town and go down into that hole?"

Milligan took another drink and then started to pull up his pants to the knees, and let down his stockings.

"Look at those legs," he said.

Livid scars encircled his limbs. Ugly ulcers, just healing, were scattered along the scarlet lines. Milligan smiled as he explained, "I fell down one day. Fortunately, Conway was able to stay on his feet, and he had an ax and cut me loose. I was in bed for days. I want to see your little pet vines in that hole in your old home town, Major, but I want to be very careful about how I go near them. What do you think about it, Mr. White? Any connection between Angkor and the English ivy?"

"There may be. The reason for the sudden desertion of those dead cities has been a puzzling one to scientists. Some say it was a change of climate, others diseases, carried by insects. Terrible wars might have been at the bottom. But suppose, just for the sake of argument, that near each large city there was a swamp-hole and out of this hole came some antediluvian form of plant life? Let us further suppose that this plant life was carnivorous.

Fear might have then led to the desertion of the cities and violent, unreasonable panic depopulated them.

"Thousands of centuries ago life on this world was bizarre, weird and utterly terrible. Everything grew big. Earth worms twenty feet long and bats with a wingspread of sixty feet. Ferns grew into trees, two hundred feet high. Animals grew a hundred feet from snout to tail. Then everything changed, and the big things died and gave place to little things and at present man, the King of the Earth, is a little soft thing under six feet tall. But the dreamers have told us their suspicion that in the out-places of the earth, under the ocean or in unexplored caverns, the giants of antiquity lie, silently sleeping, waiting for the time to come when they can once again rule as Lords of the Earth. Perhaps in these centuries of waiting they have developed characteristics that we have not even considered as possibilities. For example. *Can plants think? Can they plan and act according to any plan?* If they can, and I think that I can show you something very much like it in my plant laboratory, then what is to keep some form of plant life from deliberately making war on the human race? I made that statement in the reading-room today and they laughed at me. And I did not know then about Milligan and his legs. I think that we had better go with Major Young to Yeastford and see what he has to show us, and then—I want to go with Milligan back to England—unless things start over here."

Milligan, the iron man, the dauntless explorer of the waste places of the earth, looked at the biologist as though fascinated by his remarks. He had often faced danger, but it seemed as though he dreaded to face this thought. Yet, he forced himself to speak.

"That is what I thought," he said, "when I studied those dead cities. Something drove those people out. It came slowly, not like killing waves of animals or migratory invasions of savage tribes. It came slowly and the people deserted, while they still had time, and left the cities to the vegetable kingdom. Now a few monkeys sport furtively on the temple roofs of Angkor and a few parrots scream in Lubaantum, but they are afraid to venture too close or too near the ground. And the natives are afraid; they say the places are populated with demons, but in reality they will not be honest with you and tell you just what it is that they are afraid of. I feel that this threat from the ground drove those busy millions into an enforced exile, and it was so terrible, so horrible in its menacing frightfulness, that instinctively they decided to forget it, to blot the whole episode from the mental pictures of the history of their race.

"That is what I had in mind. And I could not tell anyone, because I was sure he would laugh at me. Then I saw a starting of it in England, and here in America I met a man who believes it possible and another man who says that he knows a place where a swamp-hole is just beginning to belch forth its guesome cargo. Suppose we go to Yeastford and study that hole? Perhaps then we will be able to see what can be done."

"And it will have to be done secretly and fast, because if it attacks our cities as it did in ages past or as it has that little part of England, then our civilization is doomed," cried White.

"Bosh!" cried the Major. "Bosh and fiddle-faddle! Nothing can destroy us. We are too great, too powerful, too highly intellectual."

The Yeastford Real Estate Company had known about

the Swamp-Hole when they bought the large area of land over in South Yeastford. They had been forced to buy the hole in order to secure the rest of the land. They knew when they bought it that they would never be able to sell it. It would never return a dollar of their investment to them; so, they simply charged up that acreage to profit and loss and added a little extra to the price of each building lot they sold.

THE town grew around the hole. A National Highway passed one side of it, a railroad another side, and two streets the remaining sides. Thus, the hole was surrounded on three sides by cement streets and on the remaining side by the tracks of the D. L. and W. R. R. A busy, happy and prosperous neighborhood of substantial folks lived there and passed the hole daily. They had become so accustomed to its being there that hardly any of them realized its presence.

From the stout fence that surrounded it on all sides the land fell rapidly down to a circular center. The pitch was so steep that it was difficult to descend to the bottom. And there was nothing there when the bottom was reached except a mud hole, ice in winter, dry in summer and a muddy pond after every hard rain. Trees grew on the steep sides, ferns and moss covered the ground, a few pond lilies tried to live in the stagnant water, their only visitors the myriad mosquitoes, their only friends the little frogs who sat shyly on the lily pads.

Birds flirted in the tree tops and gorged themselves in the fall on the wild grapes, while below a few rabbits and squirrels claimed ownership of the nuts that fell from the walnut and hickory-nut trees. Occasionally a dog would dash through the underbrush and in the fall a few hunters tried to kill the rabbits that had the temerity to live so close to civilization. That was the Swamp-Hole of South Yeastford.

The three men arrived at Yeastford about forty-eight hours after the hunter had lost his dog. They had decided that it would be best to keep the real reason for their triple visit a secret. So the Major simply told his housekeeper, that he had two political friends visiting him, and asked the inquisitive reporter to say nothing about the fact that the Mayor was entertaining company. Fortunately, the next day was dimly drizzling, making it possible for the three to reach the hole unobserved, climb over the fence and slide down the steep embankment without anyone's being the wiser.

In a few minutes, aided by the force of gravitation, they reached the mud hole at the bottom. Sure enough, there was the new growth of ivy and on one side was the dead fox-hound. He attracted as much attention as the ivy. The Major poked him with a stick and then gave his verdict.

"Dead as a doornail and dry as a piece of old leather."

"Looks like leather and bones to me," observed White.

"All the blood sucked out of him," whispered Milligan.

"See those long white tendrils? They have suckers on them just like those on the arms of an octopus. They just wrapped around the poor cur and sucked him dry. See those branches move! I do not know whether you have noticed it, but since we have been standing here there has been a marked movement over in our direction. I worked on that point with rabbits for a while and the long tendrils seemed to be able to either see or feel or smell flesh. Let me show you. That is why I brought over this pole and the pound of liver. We will tie the

liver to the pole and do some experimenting. Suppose we go around on the other side. Those long white arms are too close to me for comfort. There," and he held the liver high in the air over a part of the plant, "we will see how it acts."

They did not have to wait long. The plant slowly lifted its stems into the air and surely, with almost an uncanny, human precision, sent its tentacles towards the piece of liver suspended in the air. As the meat on the end of the pole was moved, the vine moved, following it. And at last, moving with a swiftness that surpassed the agility of the human arms holding the pole; the vine wrapped around the piece of meat and drew it down into the middle of the leaves.

"The leaves themselves," commented White, "are remarkably like the ordinary ivy except that they are white in spots. Were it not for those long tendrils, I would think that it was nothing exceptional. Of course, the fact that it eats meat is not unusual for the vegetable world—lots of plants eat meat."

"As far as I can tell," interrupted Milligan, "this is just the same kind of ivy we saw in England. At least it looks the same to me; the thing that frightened us was the largeness of it and the thought of where it was coming from and what would happen if it did not stop coming. Of course, over there we saw miles and miles of stems, while here there seem to be just a few yards."

"It must have just started here," explained the Major. "Just started. Fortunately, we found it in time. We must think of some way of stopping it—killing it—driving it back into the hole."

The three men made a queer spectacle as they stood there in the mist, talking about a danger that no one else in America realized. They were terribly in earnest, profoundly impressed with the immensity of the problem; and as they talked, the ivy grew towards them; grew towards them, especially Mayor Young, and silently sent a thin tendril up his trouser leg and wrapped around the ankle. He turned to go and fell, tripped by the vine. Other tendrils came toward him. White and Milligan pulled at him, took out their pocket knives and started to hack through the restraining bands. It seemed as though others came faster than they could be destroyed. At last the Major was free and the three men started to run up the hill as fast as they could.

And as fast as they went up the hill the ivy came after them. "Hell!" gasped White, shivering as he turned around for a minute. "It is up with us, and it's not growing. No plant could grow as fast as that! It is coming out of the hole. Hurry! Hurry!"

He paused on a flat spot, seized a large stone and hurled it down the hill. The rock bounded into the air, was caught in flight by a dozen tendrils, played with in the air and then tossed aside as though inventoried as useless. And a minute later the three men reached the fence, climbed awkwardly over it and stood breathless on the cement walk. Mayor Young uncovered his legs and looked at them. They were bleeding from fifty small wounds.

Even as he bent over, a hand tapped his shoulder. "You three men are under arrest for trespass," said the policeman. "Can't you see that there is a 'no hunting' sign on that tree?"

Mayor Young stood erect and eyed the man coolly.

"I should think you would know me, Thomas?" he barked.

"Certainly he knows you," interrupted another man, none other than Hiram Jones, President of the Yeastford Real Estate Company. "Certainly he knows you, and so do I. You thought you were clever at that last election. You have tried for years to make a fool out of me, and now I am going to make one out of you. You three men are arrested for trespass. Tell your stories to the Magistrate. Go ahead, Thomas. I will make the necessary charges against them."

"But my dear man," expostulated Milligan, "you don't know——"

"Don't 'dear man' me," shouted Jones. "You talk like an English actor. I'll teach the three of you to hunt on my land!"

"It was the ivy we were after," explained White.

"It's something you ought to know about," added Milligan.

"If you do not believe me, look at my legs," pleaded the Major.

"The three of you are drunk. That is another charge, Thomas. Drunk, disorderly and trespass. Run them in."

That night the three men sat comfortably in the bachelor home of the Major. Their experiences had been decidedly unpleasant. All the political enemies of the Mayor had delighted in his arrest, and while it had resulted in nothing more serious than a fine, which he paid at once for the three of them, still, it was a humiliation which rankled the spirit of the proud ex-soldier. Besides, his legs hurt. There must have been a poison in the tendaris which was infecting the minute wounds. He sullenly bit on the end of the cigar that he was smoking. The other two watched him closely. At last he threw the butt into the ash tray and growled.

"That stuff is growing fast. By morning it will fill the whole damn hole. Perhaps by tomorrow it will start to cross the fence."

"Are we just going to sit here and do nothing?" asked White.

"The people ought to be warned of their danger. When it gets into the road, the little children playing there—you know what might happen to the little children. And after all, Major Young, you are the Mayor of the town. You owe something to your office."

The Mayor of Yeastford looked sharply at the Englishman.

"What do you think I ought to do?" he asked.

"Let's wait till morning," urged White. "Then we can go and see just what the situation is. I guess they won't arrest us for just walking on the street or the sidewalk."

THAT is what they did; just waited till morning. All during the night the plant came out of the hole and all during the night it climbed up the hill and up on the trees and it grew, as well as crawled. The morning came, bright and free from the fog of yesternoon. The men, after a leisurely breakfast, walked towards the swamp-hole. Even from a distance they could easily see that there was a change in it. The trees looked larger and greener, and as they neared the hole they saw that it was not a hole any more; there was a large hill of green ivy with a few dead trees sticking their bare branches through the white and green leaves, and the whole mass was moving with a sickening undulation that made the three observers shudder.

They were not the only ones watching the hole. Thomas, the policeman, was there, and Hiram Jones and half a dozen others, and as many women, who were holding their children tightly by the hands. One of the women was talking in a shrill tone to Jones, and holding her three-year-old child in her arms.

"It's dangerous!" she screamed. "You own that land, and you ought to do something. I tell you it was dragging my child down there when I heard the scream and ran and pulled her loose. I was peeling potatoes and luck would have it, I carried the knife with me. You going to let that weed grow there and kill our children?"

"Dosh!" sneered Hiram Jones. "It is just ivy. Started to grow there and the swamp-hole was so rich it grew fast. Just ivy, I am telling you. I am going to make cuttings of it and sell-it for ten cents a cutting. Lots of folks will buy a fast-growing vine like that for ten cents. I'll show you what I think of it. Bah! I'll walk through it."

He jumped over the fence and started down the hill. Mayor Young called to him to stop, to come back, but he kept on. That is, he kept on for a little while, and then he turned around and started to scream. It was a shrill, animal cry, and before it was ended the ivy was over him, barring him from the onlookers except for a few undulating movements. Another scream, and then silence.

The ivy started in a hundred places to cross the road. The folks of South Yeastford shrank back from it. Women grabbed their children and ran trembling to their nearby homes, shutting the doors and locking them. Thomas walked over to the Mayor.

"What does it mean, Major?" he asked. There was no doubt about the fact that he was bothered. "Should I get some of the boys and go in after him?"

"Better not, Thomas. He is going to stay there and so will anyone else who goes in there."

"But it is just a plant, ain't it?"

"Yes, it is just a plant," the Mayor replied, rather absently. "Just a plant. I think they call it ivy, Thomas. You go around and tell all the women to keep their children indoors. Mr. White and Mr. Milligan, suppose we go back to my home and talk this over. I am sure that we can do no good by standing here and watching that damn thing grow. At the rate it is going it will be across the roads by noon, and then—well—we will either have to stop it or make the people get out of their homes."

In an hour the Courthouse bell called the men of the town to a mass meeting. The bell was used only during Court week or in case of fire. Naturally the men of the town were curious. The Mayor lost no time in telling them the reason back of the meeting. He talked to them right from the shoulder; there was no mincing of words.

"The men of this town had better get axes and knives and hatchets and start fighting," he ended. "Otherwise, the people in South Yeastford will be driven from their homes in a few days. And they had better leave if the ivy comes near them. I am going to leave this in the hands of the Councilmen, and I and my guests are going to see the Governor."

Of course, there was endless talk. Everyone knew that the Mayor had been fined the day before for disorderly conduct. Perhaps he was still drunk. Still, most of the men who attended the meeting left it to walk over to South Yeastford. What they saw there was not

especially assuring. The ivy was now over the road and starting to grow over the lawns on the other side. An automobile had been driven over that street, but it had been caught by the ivy, and the man driving it had barely escaped with his life. It did not take the curious spectators long to realize that they had to start in and get busy. They did so, but without discipline or order, each man for himself and in any way and place that he wanted to. They worked all the rest of that day, and then, rather satisfied with clearing the street, they went to their homes for the night.

The next morning the ivy had recrossed the street and was curling around some of the houses. By that time the State Constabulary, under orders from the Governor, arrived and took charge of the work. It was rumored that several regiments of State Militia had been ordered out. Eager newspaper reporters began to interrogate the town people. Thomas, the policeman, was in his glory. He was especially clever in describing how Hiram Smith had yelled as the ivy dragged him under.

It is an interesting fact that the Governor gave one hundred percent credit to the story told him by the three visitors from Yeastford. Major Young, White and Milligan had been able to show him that a very real danger existed in his state of Pennsylvania. He promised the Mayor all the help that the state machinery could afford. He even offered to come to Yeastford himself, as soon as he could do so. After the conference, he gave a long interview to the newspapers, in which he spoke much about himself and little about his three visitors. One would judge, from reading the article, that the Governor had been the first one to discover the ivy and to recognize its danger.

On the fifth day two regiments of National Guards and over a thousand citizens were actively fighting the growing ivy. The men were working in relays. The work was being performed in an orderly and systematic manner. With the greatest difficulty, the roads were kept clear and the ivy was confined to the swamp-hole.

The fight to keep the ivy inside the fence was apparently a fairly easy one. Every night the ivy grew, and every day the branches that went over the fence were cut off. Of course, it took till nearly dark to finish the day's work, but when darkness came the road and sidewalks were cleared of the vegetating threat. There were some casualties, but the offensive powers of the plant seemed to be considerably diminished by the multiple traumas that it was suffering. It looked like an easy victory. Even Milligan, with his superior knowledge, was hopeful of success. On the second day White had returned to New York for further study of the plant in his laboratory. He did not return till the sixth day of the fight.

On the train from New York he thought over the situation. As the train neared the Water Gap he went out on the rear platform. The Gap was passed and then the pulp-mill and the track began to parallel Broadhead's Creek. There, above the power dam, he saw something that made him turn white. He was still swearing when he jumped off the train at East Yeastford. Milligan, who had received the wire announcing his return, was astonished to see the usually placid biologist so upset.

"Milligan, what have those fools been doing?"

"What do you mean?"

"They have been cutting off that ivy. What did they do with the pieces?"

"They must have carted them away. I know. They took them in carts and dumped them into the creek. Some they took up on Fox Hill."

"They were fools and so were we. They should have been warned. Fire! That was what was needed! Fire! Perhaps it is too late now. Every piece that had an aerial rootlet and had a chance has started to grow. Broadhead's Creek is full of it. It is starting to run up into the mountains around the Gap. Unless we act at once we are lost."

"But I do not understand," cried Milligan. "I thought it all came from a central plant of some kind, a variety of plant animal that lived in the hole. Don't the pieces die when cut off, as my fingers would if they were amputated?"

"No! That is going to be the trouble of it for this country. I have been working with it. Even the smallest piece, if it can obtain water, will start growing and make a new 'animal.' I wish I could escape from the word 'animal,' but I cannot. The 'thing' seems to have everything that we have in the way of vital systems, and I think that it has some kind of a mind. It can think. All that it has lacked so far is mobility. It seems to be attached to a central root and it just moves forward and grows as it moves, but the main body stays in the hole. That was the impression I obtained from what you told me, Milligan, and even in England, where no one fought it, it took a long time for it to cover just a small area. Here is a different story. We have been helping it. We threw hundreds of pieces into water and that water carried it down for miles. Perhaps some branches are drifting to Philadelphia at this minute. I am sure the whole Gap area is infested."

After that, fire was added to the weapons used. It seemed to work for a while, at least around South Yeastford. But in the woods of the Water Gap it was a different story. There the forests were filled with small summer cottages and large hotels. There was a great investment. Fire in the woods meant burning buildings. The hotel owners started legal proceedings. There were injunctions and counter-injunctions. It all meant delay.

EVEN at that time America was not air-minded. Had she been, the use of bombing airplanes would have been thought of at once. As it was, over two weeks passed before it occurred to anyone to try the extermination of the central plant-animal by bombing from the air.

Once thought of, everyone wondered why it had not been used the first day. Ton after ton of T.N.T. were dropped into the Swamp-Hole. The town of Yeastford was shaken by the explosions. Windows were shattered. When the attack ended, the hole was just a mass of pulverized rock and shattered trees. There was nothing green left. The victory was so easy that the authorities wondered at their fright of the past weeks.

Yeastford seemed safe. If the Water Gap was in trouble, it was their own fault. The Governor of the State turned the matter over to a special committee and started to build his fences for the next election. Up on the barren mountains of the Gap the ivy seemed to lose its terror. People simply learned to stay away from it.

Meanwhile it was growing in the Delaware river. In this period of the war the attacking animal showed its diabolic cleverness. Of course, it was a thousand separate animals under the river, but each one, originating

from the same parent stem, seemed to partake of the original central nervous system, and one of the remarkable points in the entire Ivy War—for so it was to be termed in the histories of the future—was the ability of all the plants to work in perfect synchronized harmony with each other.

The plants grew down the river. Biologists later on stated that the original home was in deep subterranean lakes, where it lived the part of an aquatic animal. It certainly showed its ability to live under the waters of the Delaware. It gave no evidence of its existence. Not a leaf appeared above the surface of the water. It simply stretched its long branches southward along the bed of the river, and as those branches grew into long submarine cables, they grew thicker until many of them were over a foot in diameter and looked like large water snakes, as their whitish brown sides appeared through the boiling waters of the occasional rapids.

The branches grew down the river till Philadelphia was reached. Once more the combined intelligence of the plant-animal showed itself in not making an immediate attack. With flame, dynamite and ax, regiments of men were fighting the menace on the slopes of the mountains around the Delaware Water Gap. But no one thought of searching the Delaware River between Philadelphia and Camden; and had anyone thought of it, it would have been difficult, almost impossible to exterminate a mass of tangled roots stretching for miles along the river front and thirty feet deep in the channel mud. Meantime the stranger was growing, gathering strength, preparing for the conquest of the city.

In spite of the many conjectures and surmises, no one ever determined positively whether the ivy had a language or some method of communicating with its various parts. One thing is certain and that is the fact that during the whole war it showed the intelligence of a thinking unit of life. For example, instead of concentrating its forces on a small town, it deliberately passed Portland, Easton, Trenton, and waited till it reached one of the great cities of the East, Philadelphia. Once there, it did not send a single attacking branch to the east side of the river, to Camden, but put all its energy into the conquest of the larger city.

The time that it selected for the attack was opportune. It was a night in early spring, cold and damp with fog. No one was out on the street, save from necessity. The street lights gloomed like sullen stars overhead. The wet streets and the moist air served as a blanket to deaden every sound. Then, at midnight, when every watchman was hunting the warmth and dryness of shelter, the plant sprang forward to the attack. One plant, perhaps, but with a thousand parts; one animal, it might easily be, but with a thousand arms; one intellect, but with a thousand deadly attributes.

Up Market, Walnut, Arch and many streets running west from the river the plant advanced to the attack. It was silent in its growth, murderous in its desires. Watchman after watchman died with the horrid coil around his neck, giving, through a hundred punctate wounds, his life fluid to feed the plant and passing out of consciousness without the least idea of what was killing him. Into the cellars, the bootlegger's joints, the cheap boarding and rooming houses, the laterals spread and collected therein their harvest of death.

And as the "animal" tasted more and more blood it worked faster, gathering its harvest of death. It worked

faster and even more silently. The city east of Broad Street was surrendering to the enemy without even knowing that there had been a battle waged. Aerial rootlets fastened to the stone buildings, and up these buildings the terminals grew, searching for their prey through every open window, every unlocked door.

Morning came, a lovely spring morning. Before the kisses of the sunbeams the mist melted in gentle resignation. The city awoke, feeling that it was good to be alive, and not till then, when the first living people started to invade the district east of Broad Street, did the city and the nation realize what had happened during the silent watches of the night.

Those in that portion of the city who had escaped death during the dark hours gayly walked out into the street without the least intimation that anything was wrong, and once there, died quickly. And whether they died quietly or with screams made no difference to the "animal" that closed around them and sucked out their fluids.

Even in the daylight it took the forces of Philadelphia some time to realize what had happened and was happening to them. It was not till nine in the morning that the scientists suddenly appreciated the fact that the ivy of Yeastford, the plant that was still being fought on the mountains of the Water Gap had in some peculiar way reached Philadelphia and was taking the city by storm.

IT was something greater than the business of a city or the affairs of a state. This was something that menaced the life of the nation. If an unsuccessful fight were made against the plant in Philadelphia, what was to hinder it from attacking other cities? Wilmington? Baltimore? and even Washington?

The defense was slow in starting because it could see, at first, nothing but the advanced portion of the enemy. It was plain to be seen that Market, Chestnut, Arch and Walnut Streets were slowly filling with a mass of green leaves, but it was not until daring aviators had made an aerial survey of the situation that the defenders realized the important fact that the attack had been inaugurated from the river. Later on, when ship after ship had been surrounded, pulled down into the river mud and everyone of the crew killed, the real significance of this became apparent.

The ivy grew upward as well as onward. Front Street, within twenty-four hours, was a mass of green embowered houses, and some of the older ones were already beginning to be pulled to pieces.

The Governor of the State heard the news and he recalled the three men from Yeastford. He lost no time in trying to get in touch with them over the long-distance telephone. Here more time was lost. The Mayor had gone to New York for a rest. White was working in his laboratory, trying to find some method of fighting the ivy. Milligan had strangely disappeared. Unable to locate any of the three, the Governor was momentarily at a loss as to what to do next. In despair he sent the entire National Guard of the State to Philadelphia, under the command of the Adjutant General of the State, while he went to State College to talk matters over with the Dean of the Agricultural Department. To his surprise he found that gentleman had left for New York. Not till later did he realize that the Dean had gone to White for help as soon as he had heard of the trouble, realizing that White, of all men, was the one most likely to be of real assistance.

The first day and the next the same tactics were employed in fighting the ivy; that is, that had been used in South Yeastford. The effort was made to keep it east of Broad Street. The terminal branches were cut off as they tried to cross the dead line. As company after company of the guards derailed they were marched to the fighting line and put on sentry duty. No one was allowed to even try to enter the doomed area. Death, by this time omnipresent, kept anyone from leaving. As though satisfied with its day's work the ivy stopped going westward, and seemed satisfied to solidify its position in the east of the city.

It had captured the subways, putting an end to all travel there. The defense had an idea that it was working silently through the sewers of the city, but the danger was so new, the problem so intense that no one had the courage to speak openly about what *might be going on under the city*. The end of the second day came, with Broad Street clear and a strange battle going on between the military and financial forces of the city. The air forces were anxious to drop depth-bombs into the Delaware River, to try and blow the enemy to bits at its headquarters. They wanted to throw T.N.T. into the great green masses on Market and Arch Streets. They were anxious to start a war to the death. And the money interests, the financiers who had their millions invested in real estate and stores of precious goods east of Broad Street protested. They appealed to the Governor, they cried to the President, they even sent messages to the Altwise demanding less harsh measures.

Meantime, the ivy rested. At least, it seemed to rest. What it really did was to send a hundred roots up the Schuylkill River and on the third night invade the city from the west. The dawn broke with every bridge, every railroad track covered with ivy and evidences of having been rather rapidly pulled to pieces. The Pennsylvania, the B. and O., the Reading were all forced to suspend operation. The city could no longer be fed.

Conferences began. Interviews were given. Great personalities ventured asinine opinions. Every Tom, Dick and Harry, who was able to do so, rushed into print. There were a thousand remedies offered, none of which could be of any possible use. The Red Cross, the Regular Army, the Grand Old Party and the Amalgamated Labor Unions each started in to do their bit. But everybody was working in a different way to accomplish the same thing, and no one was quite sure of just what he really wanted to do.

Meantime the plant was growing, the "animal" was becoming more powerful. It was gradually gathering in its forces on every side of the city. The citizens started to leave; there was little suffering, and after the first day, there were practically no deaths, but the President's advisers realized that a panic would start just as soon as the city dwellers knew the possibility of their being entirely surrounded. So, they silently encouraged the depopulation of the city.

At last the national danger was so plainly seen, that orders were given to bomb the rivers and the city east of Broad Street. That order would have been carried out had not White arrived in Philadelphia and asked for a delay. He made a peculiar figure before the important personages gathered at Army Headquarters in City Hall. He was rather cheaply dressed, was without a hat and carried a Boston bag in one hand a gallon demijohn in the other. It took a good deal of introducing to make

the Generals realize that the man before them was the leading expert in plant physiology in the Western Hemisphere.

"EVER since this ivy war started in the swamp-hole in South Yeastford," he began, "I have been trying to devise some scientific method of fighting it. I have felt the uselessness, the utter hopelessness of making a frontal attack on it in force. We were able in Monroe County to cut it to pieces, but each little piece simply started in to make a new plant with all the devilish brains of the mother 'animal'.

"I started to study this peculiar form of ivy. I found that it had a nervous system and through this nervous system it was able to communicate with its various parts. But, most important of all, was the discovery that it had a circulation that was rather like that of the fetal cardiovascular system. It actually pumps fluid from one end of its body to the other.

"Before I arrived at this conclusion, the scientists who studied plants were at a loss to explain the movement of sap in the larger forms of vegetative life. Atmospheric pressure would only raise the sap thirty-four feet, the height of the water barometer. Osmotic pressure might play a part, but it is so slow that in the giant *Eucalyptus Amygdalina* it would take a year of osmotic pressure to take sap to the top, four hundred and fifty feet above the ground. Nothing explained this movement of sap till I found in this ivy a propulsive tissue very much like the heart muscle.

"Once I found that, I realized that the ivy had a circulation in two directions. Much of the time I have been wondering whether I was working with an animal or with a plant, but that does not make any difference, because I have found the thing to kill it with."

"Well, what is it?" yelled an irritated General.
 "Simply this," and White held up the gallon demijohn. "This is the stuff that will do the work. But I ought to tell you that I think this ivy is more of an animal than it is a plant. At least its sap has cells in it, different from our red corpuscles, yet, at the same time, a little like them. When I found that out I started to make a haemolytic toxin, something that would have the same effect on the sap of the ivy that poison of the cobra serpent has on the blood of man. It was not very easy, but I found it, and for the last three days Milligan and I have been over in Wolf Hollow north of the Gap, experimenting with it. And I tell you one thing: it kills the ivy and it kills it quickly. Inject it into this blood stream at the terminal end of the animal and it travels back through the animal-plant like fire and literally kills as it travels.

"You give me a company of soldiers to help me and Milligan and I will liberate this city in a few days, and then I am going to advise the President to start a war of extermination against every ivy in this country, no matter how harmless and innocent it may seem."

One of the Generals turned to another.

"Is it worth trying?" he asked.

"I think so," was the reply. "We will wait twenty-four hours and at the end of that time if there are no results, we will start the bombing planes."

Half an hour later a peculiar event was taking place at Broad and Market Streets, on the northwest corner of Wanamaker's store. A company of soldiers had isolated a branch of the ivy, had cut off all the tendrils and had

pulled it out till it lay like a writhing snake, its end almost touching City Hall. It twisted and pulled and squirmed and almost got away from the hundred men holding it fast. Sitting on it was White, with Milligan helping him fill a 25 c.c. glass septic hypodermic syringe. At last it was filled and the three-inch hollow needle was plunged into the bark of the ivy, the toxin being slowly injected into the circulatory vessels. Instantly the leafless branch dropped to the pavement. Back of its attachment to the store the green leaves were turning brown, the waving tendrils, seeking in everlasting motion their human food, dropped uncoiled and lifeless. A thick swarth of green ceased moving and hung dead on the side of the great emporium.

Walking a hundred feet across Market, White picked out another branch for attack. The same procedure brought the same results. Ten doses were given and then twenty. The aviators reported that long streaks of brown were appearing among the green and that these streaks were going back to the river. White asked for a few physiologists, whom he could train to give the injections. The men whom he wanted appeared as though by magic. Milligan directed the work while White went back to New York for a larger supply of the haemolytic poison.

Now that a means of defense was assured and a definite program arrived at, everybody worked in harmony. System grew out of chaos. Hope took the place of gloom. The nation, interested at last, financed the rest of the war. White was made a General, Milligan was decorated, and Major Young, promoted to a Colonelcy,

was placed in charge of the Monroe County portion of the battle.

The war ended with the same rapidity with which it had begun. From the first the living organisms must have realized the hopelessness of the struggle, because they made a definite and orderly retreat. Tearing off their branches, they withdrew to their place of security in the rivers, and even there, realizing that they would be hunted for with grappling hooks, fled hastily to the ocean.

The nation, aroused to the peril, conducted a systematic campaign of extermination. The Delaware River, from the Gap to the Capes, was thoroughly dredged, and whenever a branch was found it was given its dose of death dealing fluid. And not till the army of science was satisfied that there was no more enemy, did the conflict stop.

Colonel Young went back to Yeastford. He had no trouble in being elected Mayor for the seventh term. The morning after election he was in his office receiving the congratulations of his friends. In walked William Coonel, as usual, slightly splificated. The Colonel recalled the previous visit of the inebriated worthy.

"Well, Bill," he said kindly. "Sit down and have a cigar. It was a great war while it lasted, but we won out at last, and the ivy is no more."

"Yes, I guess the war is over, Colonel," replied the hunter, "but, after all, the fact that we won ain't going to bring me back my rabbit hound. He was a great dog, Colonel, too good a dog to be eat up by a good-for-nothing plant."

THE END