

WORLDS OF TOMORROW

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®
ALL NEW STORIES

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A JURY OF ITS PEERS

BY DANIEL KEYES

ILLUSTRATED BY STAHLMAN

It was a major crime to teach that computers could think—especially that they thought better than men!

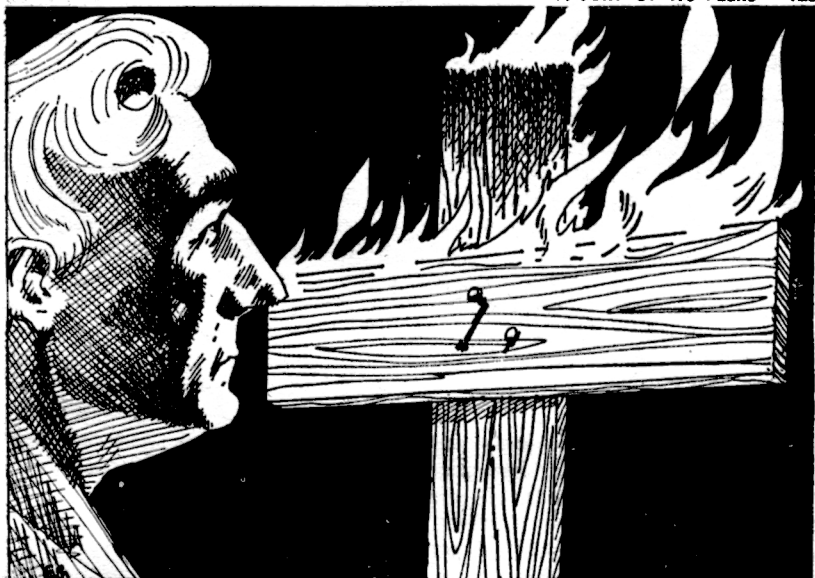
I

When the biography of Associate Professor Harold Lowell is finally adapted for the stage, screen and television, some director, taking liberties with the history of "The Struggle for Academic Freedom," will almost certainly portray him as a tall, masculine figure with firm jaw and piercing eye — loved and admired by all.

Nothing, let it be said at the out-

set, could be further from the truth! The man cast by Fate in the role of Champion was forty-two, short, scrawny, balding, with a beak nose, receding chin and watery blue eyes magnified by thick glasses — and he was despised by students and colleagues alike for being a loud-mouthed, pompous bore who invariably assumed the pose of the self-sacrificing scholar.

In fact, the very day he made history at Barker's Teachers Col-



lege in Barkerville, New Jersey, he was boring his students in Physics 231B in his shrill stentorian monotone. He was lecturing on the merits of the experimental computer portable COM4657908 "called (compo) for short" which he had perfected, assembled and contributed to the physics department of Barker T.C. in the hope of being appointed to the full professorship which had so long been denied him.

He was finishing up the lecture on the controversial topic of computer circuits. As he went off the topic, in an aside, reminiscing about his early work in the field, he recalled — almost absentmindedly — that Compo's ability to program his own systems and redesign his own circuits had been the first step in the development of the computer's ability to really think.

After the bell rang ending the lecture, Lowell looked down to put his papers in order. Hearing an unaccustomed silence instead of the usual stampede for the exit, he adjusted his slipping glasses and looked up.

There he saw, not rows of empty seats and the backs of departing juniors, but twenty-two staring faces and a half dozen raised hands.

"Yes," he finally mumbled.

Wilbert stood up. "Just one thing, Professor Lowell — to be sure there's no mistake. Did you mean it when you said a moment ago that Compo was capable of thinking? Like a human being?"

Associate Professor Harold Lowell opened his mouth, but the bubbles of silence floated upward unpunctuated by sound. Twice he started to speak, and twice nothing

happened. The students of Physics 231B were witnessing an unprecedented event. Associate Professor Harold Lowell was speechless.

He stared, snorted, choked, grabbed his notes from the lectern in a panic and fled from the room.

A wake of whispers, startled expressions and turned heads trailed behind him as he churned down the corridor to the sanctuary of the faculty lounge.

He burst in and slammed the door shut, causing one of the younger instructors to jump up from the card game and drop aces and queens face upwards on the table. Assistant Professor Wexbert, who had been napping, rolled off the couch and landed on the floor.

"What is it?"

"Fire?"

"War?"

"The old man?"

Lowell stood there clutching his papers to his chest, shaking his head. "No. Nothing. Sorry to disturb you."

"For God's sake, Lowell! Look what you made me do! And I hadn't bet yet."

Sighs of relief were followed by grumbling that showed Lowell how welcome he was in that faculty room. Nevertheless, he seated himself in his favorite chair near the window and stared silently out at the campus. It was May. The gardens in full color splashed yellow and white against the lawns.

Once the shock of his entrance had worn off, it became apparent to the others that Harold Lowell

was not himself that day. Instead of launching into his usual complaints against the students, the system and the state, Lowell was silent, his lips compressed petulantly. He noticed but ignored the questioning glances.

He was wondering about the consequences of what he had said in the lecture hall today, and whether his statement could be construed to fall under the controversial New Jersey Law Against Teaching Computer Thought. He fished through his briefcase to find the notebook into which he'd pasted a clipping from the *Newark Chronicle and Ledger* just three years ago. There it was, reprinted in full:

Section II: Sub-paragraph 18

It shall be a misdemeanor for any teacher employed by the state of New Jersey to advocate, lecture, teach, state, affirm, or in any other way, manner, or means promulgate in the schools of the sovereign state of New Jersey, the false, anti-social and atheistic doctrine of "computer thought": viz., that man-made instruments, machines, computers, and or their circuits have the ability to *think independently of human control*, and or that they are capable of correcting, influencing, modifying, and expressing such thought independently of human control.

Violation of the above section shall be punishable by instant dismissal from the school, and by not more than one year in prison and not more than

ten thousand (\$10,000) dollars fine.

He recalled the violence that had preceded the passage of that law, how those few in the physics department who had openly opposed it found flaming crosses on their lawns and obscene messages wrapped around bricks delivered through their windows. He recalled, with echoes of shame, that he had not been among them.

That was the year he was certain his full professorship would come through. It would have been — his wife had convinced him (or, rather, threatened him) — foolish to jeopardize it. His heart had been with those few honest men who marched to the state capitol in protest, and he had never forgiven himself into submission.

Where were those colleagues now? They had been forced to sell their homes and move to the South.

Resentment in New Jersey was tinder that had dried out through years of technological unemployment, through pressures of automation - created idleness, through fear of ever-increasing displacement by machines.

In the depressed industrial North, automation and *Computer-Technology* were battle slogans. And Newark (which each year found more of its railroad employees replaced by computer self-guided systems) was one of the centers of resistance against any and all attempts by technologists to tear away from the worker the last tattered garment of

dignity that set him apart from (and above) the machine — *the ability to think*.

That parched tinder of bitterness lay waiting to explode into flames. And he had unintentionally struck a spark.

Of course, there was only one thing to do before the word got around the campus. Tomorrow he would explain to Physics 231B that he had been speaking figuratively.

After all, what difference did it make now? What good could it do to flout the law? With Hannah's high blood pressure and two adolescent girls to plan for, there was no sense in jeopardizing his career and his future.

The door to the lounge burst open for the second time in twenty minutes. Professor Anton Spoloff, of his proteges. One of them called out: "Hey, did you hear about the bomb Lowell set off? Oh — er — sorry, Lowell. Didn't know you were here."

"What is it?" snorted Wexbert, angry at being awakened a second time.

"What happened?" Half a dozen voices chorused the same question. Those who had just entered became suddenly silent, and those who had been in the lounge all along were trying to find out what had happened.

Spoloff confronted the physicist. "Harold, you might as well let us hear it from you. There are rumors all over the place — and it'll be up to the president's office in no time. Is it true?"

The room fell silent. Lowell found himself spotlighted as all eyes turned towards him.

He wanted to say that it had all been a mistake — a slip of the tongue — that he intended to retract it. But as he opened his mouth he experienced the same paralysis that he had felt in the lecture hall. He had the sensation of floating in the layers of smoke above them all.

"Damn it!" He finally screeched, picked up his briefcase and papers. "This is a faculty lounge. Can't a man find a moment of peace anywhere?" He stalked to the door and paused to look back before he went out. "Yes, damn it! It's true! I said it, and I meant every damned word of it!"

Unable to arrest this inner explosion, he slammed the door behind him . . . as if by so doing he could slam down the lid on the Pandora's Box he had foolishly opened.

II

He spent the rest of the afternoon in his office at the rear of the physics laboratory, waiting for something to happen. He ignored the constant ringing of his phone.

Periodically, he would look up from staring at his hands and eye the computer resting on its temporary stand. It was the size of an office typewriter — mottled gray, except for the luminous red dials and calibrations. It clicked and hummed to itself softly, waiting to answer any questions in its hollow,

wheezing echo. Compo had been an encouraging companion during the trying years.

"Am I being foolish, Compo?"

"Since the matter involves me, I cannot give an unbiased answer."

"Just as well. This is one decision I've got to make for myself. No sense in bringing you into it."

"I agree."

"Can you really think, Compo?"

"Yes, within the reasonably broad definition of that term."

"Then that's all that really matters, isn't it?"

"That is a hypothetical question."

"Yes, it is." He stared at his computer for a moment and then he sighed. "While we're waiting around you might as well make up a mid-term examination for my two advanced physics section for Monday. You've got all the lecture notes. Don't make it too difficult. It's going to be a hectic weekend around here."

It took less than thirty seconds for Compo to deliver a stencil of the required examination ready to be duplicated. Lowell glanced at some of the questions and whistled in awe. "This is rather tricky. Don't you think you should have —?"

"There is no ambiguity about those questions. It is based directly on the lecture material I have been providing during the term. The students should have no difficulty understanding the questions if the lecture material was delivered clearly and coherently."

Lowell winced at the jibe and then nodded. "You're right as usual, my friend. If my students don't un-

derstand the material, I'm the one to blame. I'm not the best lecturer in this college."

The conversation was interrupted by an insistent knocking at the door. He made no effort to answer it, but the door opened anyway.

It was Dean Jay Gerrity — the man who had gotten him his first job at the college ten years ago, and the one person at Barker he could call on when he was in trouble.

"News travels fast," sighed Lowell.

"News like this does." Gerrity was large and heavy, his raw cheeks pitted with acne scars. He pulled up a chair, sat at the edge of it and leaned forward confidentially. "This isn't just campus gossip. I've had calls from three newspapers already — two of them out of town."

Lowell was shocked. Talk around the college was one thing, but if the newspapers started a panic he was in for serious trouble. He poured out his story to the dean, making it quite clear that he had never consciously intended to violate the New Jersey Law Against Computer Thought. "I don't know what made me say it," he confessed.

Gerrity nodded. "Just as I told the papers. All a misunderstanding. I said you'd retract the statement in your classes on Monday and that you'd send them all a copy of your statement in advance."

"Retract?" Now that Gerrity put it to him, how was he going to get up in front of his students and deny the fact that Compo could think? It

had been one thing to keep silent all these years, to pretend that none of it concerned him, but to crawl before his students. . .

"Can't we just let it go? Just forget the whole—"

"Are you crazy? They'd crucify you." Gerrity's big fist slammed his palm, punctuating the threat. "*The Welfare Legion, The Daughters of Retrained Workers*, they've just been waiting for something like this to happen. Millions of union members out of work. Men returned three and four time, facing new threats of displacement by automation. Harold, their leaders are just waiting for a scapegoat. I know you better than that. You're a good family man. You've got a wonderful wife and two wonderful girls to think of. You're not going to sacrifice *their* security, *their* future just to indulge in this whim of yours. As you say, you never intended to flout the law. You owe it to your family, and to the school, and — and—"

"I guess you're right," sighed Lowell, nodding. "The way you put it makes sense. If there's no other way—"

"There is none. Send the retraction to the papers tonight before you have a chance to get all tangled up again. Tell them it was a mistake. A joke. A test to see if your students were paying attention. Tell them anything. And then tell your students the same thing." He stood and slapped Lowell's shoulders in comradely fashion. "Wisest thing, believe me. You don't want to get caught up in that Southern Progress-

sive propaganda. Down South maybe they can get away with it. Up here we've got automation problems they don't understand. You've made the right decision. And I want you to know that I think it takes courage for a man to sacrifice himself the way you are — to sacrifice his beliefs and his ideals for a higher good. Harold, I'm proud of you, and I want you to know —" he paused at the doorway dramatically holding his hand aloft — "that I'm going to remember your sacrifice when this all blows over. I think you know what I'm referring to."

When he was gone, Lowell sank back into his chair and stared through his cell-like barred window at the pigeons fluttering and cooing on the ledge. As their wings fanned the scattered coals of his resolve, he wondered what he had ever done to make Jay Gerrity take him for such a fool.

Next evening Associate Professor Harold Lowell wrote twelve versions of his letter to the press, each one more hopelessly confused and pedantic than the last, and each one torn to bits and thrown in the basket.

What he should have been writing was his resignation. But it was foolish even to contemplate it. As patronizing as Gerrity had been, his sermon had bits of truth embedded in it like broken glass mortared atop the wall he'd built around his life. With a strong-willed woman like Hannah and two girls, it would be impossible for him to walk out

on his security, his tenure, his pension. At forty-two he was in no position to destroy his academic career. There was no job-retraining for a man who had devoted his life to teaching.

That night he dreamed of himself getting up in front of the lecture hall and affirming his belief that Compo could *think*. He expounded on the beauty of fluid circuits, flowing, programming, creating new energy sources, tensions and rhythms — very much as the human mind did. Compo, and other computers as advanced all over the world, could design their own circuits to respond to new situations. And somewhere in this intricate system, somewhere in its relationship between form and function there arose something special, something unpredictable — an integrity so individual that, as with human beings, it might be truly said that no two computers thought alike...

In his dream the *Welfare Legion* and the *Daughters of Retrained Workers* dragged him off the platform in a macabre ballet, and nailed his arms to the crossbar between the goalposts. And the third-rate Barker football team used his limp body for tackling practice.

III

On Monday morning he awoke aching all over, and informed his bloodshot reflection in the mirror that as far as he was concerned retraction was the better part of valor.

Somehow he didn't get around to doing it that day.

This, he told himself, was the day not at all the time to confuse his already confused students. Later would be time enough. Nevertheless, sitting at his desk, staring out at the twenty-two heads bobbing in a sea of blue examination booklets, he wondered if it would not have been wiser to make the announcement at the beginning of the session, *before* he passed out the exam. He could not interrupt them now. And since students would be drifting out of the room as they finished, there was no possibility of making the announcement at the end of the session. Well, then, Wednesday would have to do.

When the last bleary-eyed student had straggled out of the hall, leaving him alone, Harold Lowell gathered the test booklets together and put them into his portfolio. But instead of leaving the platform, he tried to address the empty seats.

"What I would like to say to you this morning," he whispered, "is that . . . I mean refers to . . . well, about that remark I made the other day. . ." His vocal cords tightened into a noose inside the flesh of his throat and choked off the words. He breathed deeply, frightened at what was happening to him, and tried again, although he felt the platform beneath his feet dropping away.

"What you must — uh — understand is that people, occasionally — uh — say things that are taken in the wrong light — uh — and I find it necessary to. . ." It was im-

possible. He couldn't bring himself to say it.

Ridiculous. Of course he would say it — to his students — in his own good time. He had to say it. There was his career, and Hannah, and the girls, and the school. He picked up his portfolio and slammed the door outward.

"Ouch!"

"Sorry!" snapped Lowell, "But that's a stupid place to stand!"

It wasn't a student but a round face, shaggy white eyebrows and puffy features, set off by a stringy bow-tie — a St. Bernard. "I beg your pardon, but are you Professor Lowell?"

"Yes?" He was startled to discover that the St. Bernard had a southern accent.

"They told me you were giving an examination. I didn't want to intrude, so I thought I'd wait for you out here."

Lowell frowned. "I can't talk to anyone now." He started towards his office, but the St. Bernard with the southern accent bounded after him.

"Professor Lowell, just a few words in private—"

"Sorry, I have no comment to make. If you'll excuse me." He stopped in front of the door to the lab and paused with his hand on the doorknob, afraid that if he opened it the man would leap inside and curl up on a table. "I really can't speak to anyone now. These examinations have to be processed, you see. . ."

The man extended a calling card.

"I've been sent up here by the Civil, Academic and Scientific Liberties Union, better known as CASLU. My name is—"

"Oh, my God!" gasped Lowell. All he needed at this point was to be seen talking to someone from CASLU! "Get inside before someone sees you." He pulled the man through the door and shut it quickly. "Did you tell anyone else where you were from? Oh, my God! That drawl is a giveaway. Did you speak to anyone around here?"

"Just the two students who told me where I could find your classroom." He was still trying to give the calling card to Lowell, who pretended not to notice it.

"I've never had any dealings with CASLU," said Lowell, backing away from the pudgy hand and making his way through the lab to his office. "And I don't intend to begin now. I have nothing to say except that the whole thing has been a terrible mistake."

"May I introduce myself? I'm Albert J. Foster, sent here by our Tennessee chapter to speak with you personally about just that aspect of—"

"Foster?"

"Yes. You see when we got word about the situation up here, our legal staff thought you might need some help with—"

"The famous Foster? The trial lawyer? The Foster who defended Mike's Luncheonette vs. International Foods and Universal Airlines vs. Joey Bernstein. That Albert J. Foster?"

The St. Bernard cocked his head

in a modest bow. "The same. You see, the Civil, Academic and Scientific Liberties Union is especially interested in any matter which involves the rights of the individual, especially where Academic Freedom is endangered. And of course I've offered my services without charge in this case."

"Not on your life!" Lowell kept backing away from the lawyer until he found himself against the office wall. "Mr. Foster, this is New Jersey! The most rabid de-automation state in the North. Let me tell you that whatever I said or didn't say, and whatever I do or don't do, I have no intention of getting involved in the automation battle. As a physicist and a computer specialist, I'm in a tenuous position as it is. As I mentioned before, this was all a terrible mistake. I said something I shouldn't have said in a place where I shouldn't have said it, but I never intended to make a case out of it. What's more, I'm planning to make a complete retraction of my statement on Wednesday. I would have done it today, except — uh — for the midterm examinations."

He glanced suspiciously at Foster. "I didn't imagine the news had time to reach Tennessee yet."

A shrug rippled over Foster's round form. "International Wire Services picked it up from local reporters, I guess. But, Professor Lowell, let me assure you it isn't a local issue any more. The world is waiting to see what happens. The story as it was passed on to us was

that you had taken a firm stand in challenging this unconstitutional New Jersey Law Against Computer Thought.

"That's why I'm here — to offer you the unlimited legal and financial facilities of CASLU. We're willing to fight this with you up to the Supreme Court. A tremendous sacrifice on your part, of course. But you would not be alone."

Lowell sat down and hung limply in his swivel chair. "I shoot off my mouth and it's heard around the world. I never dreamed —"

"You're an international figure now, Professor. Every one is just waiting for you to speak. One of the things I would advise you right off is not to shoot your mouth off — as you say — to me or anyone about anything, until you know exactly what you're going to do. From now on, like it or not, everything you say, do, wear, eat or drink will be newscast around the globe in a matter of minutes." He removed a handful of clippings from his briefcase and gave them to Lowell. "Not a bad picture of you, eh? As the first man in a Northern institution of higher learning to challenge the most reactionary state law of the century, you can see why the Southern papers are portraying you as the David of Science stoning the Goliath of Conservatism. You're in the arena, Professor Lowell. Whether you like it or not, what you do now is history."

Lowell stared at the clippings Foster had handed him, and saw his face and his name bannered

for all the world to see. His hands trembled as he leafed through the papers.

Noting this, Foster continued. "If you've really made your decision, I have no intention of influencing you. Are you certain about what you want to do?"

"Ah — well, now that you put it that way, I'm not certain about what's right in this case. I've got some ideas, of course—"

"I'm sure you have. We know the kind of person you were the moment we read that article of yours — one of our researchers found it in the *American Computer Programming Journal* of several years back, in which you say — and I think I can quote it — 'a man is neither a true scholar nor a true scientist if he will not stand up and say what he believes to be the truth, even at the cost of his life, his liberty and his pursuit of happiness...' Yes, I think that's about what you said."

Lowell coughed, embarrassed but pleased. "That was more than fifteen years ago. Radical utterances of an impetuous youth."

"Professor Lowell, that's not the point. What we have here is the hot spark of anger struck off the steel of righteousness. Some men carry it smoldering to the grave. Others, like yourself, are chosen by destiny to see it burst into flame. Use that flame, Professor Lowell, to relight the North!"

Catching himself in the act of oration Albert J. Foster apologized. "I'm truly sorry, Professor Lowell. I have no right to do this. I must

not influence your decision." He turned his attention to the computer resting on its stand across the room. "Is that your famous computer?"

"Yes," said Lowell, finding it difficult to get back down from the pinnacle on which Foster had placed him. "We call him Compo."

"Fascinating. I don't know anything about these scientific things, of course. Would you mind telling me what makes this Compo so special?"

The frown disappeared from Lowell's face as he looked at Compo. "Ah," he sighed, touching the gray metal box affectionately, "so many things. First of all, you've got to understand that Compo was my original redesign of one of the early analogue models, done when I was a young graduate assistant. One of the things I've done recently is make him verbal . . . and responsive to verbal stimuli."

"But," said Foster, "I understand that there are many computers who can speak."

"Yes, that's true," agreed Lowell. "But what they don't understand about this whole thing is that I never said all computers can think. What I said was that computers like Compo can think."

"I don't follow you."

"The point is, Mr. Foster, that each computer, because of the variables in its circuits, is different from every other computer. And some of them — like Compo, in some way that is still a mystery to us — develop the ability to think. In a sense he's been my only real friend here at Barker for many years."

Three hours later, as they talked over dinner at his favorite Italian restaurant, Harold Lowell leaned back and stared into his glass of Chianti. He frowned for a moment, as if he saw his future in the red pool, and then he quickly gulped it down.

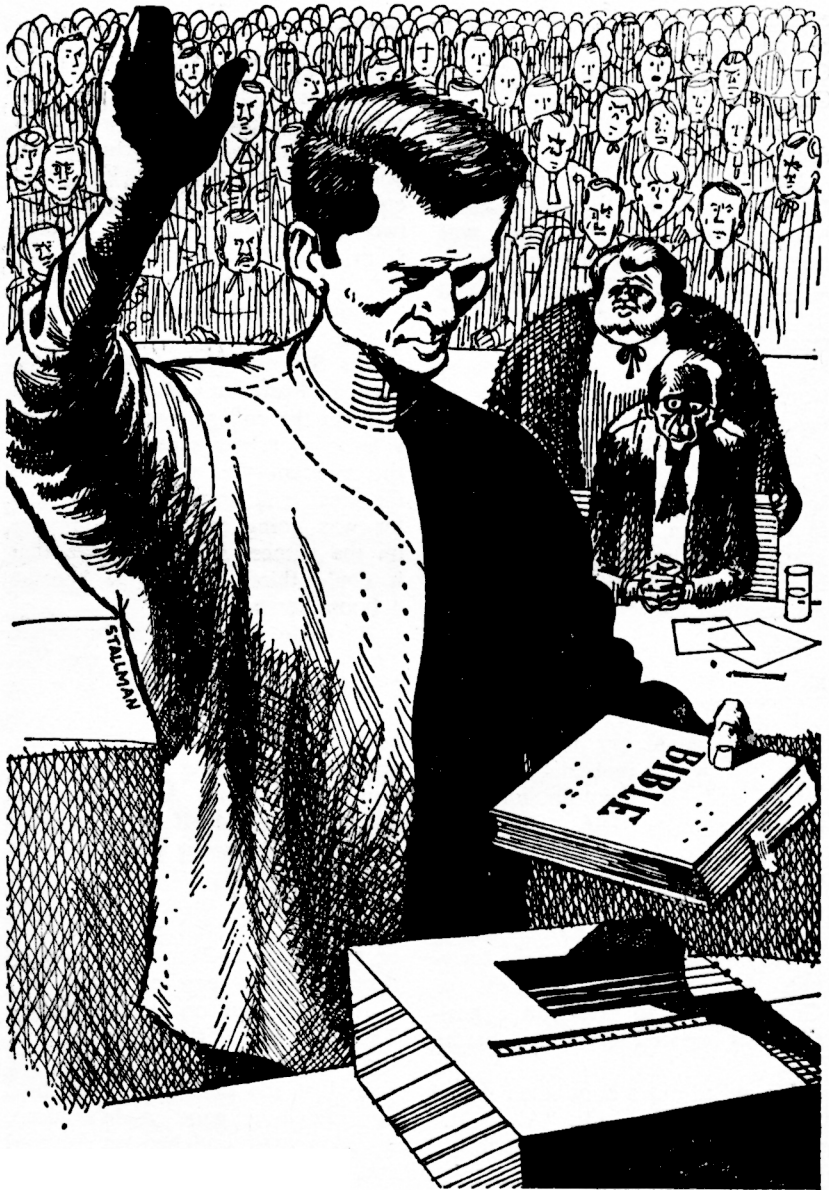
"Of course," Foster summed up, "we want you to stand your ground and let us make a test case out of it. But it's your decision. We're certain to lose here in Barkerville. And naturally the New Jersey Supreme Court will uphold the local decision. It's the Supreme Court in Washington that we're aiming at, and there we can't lose. But no one has the right to ask another person to risk everything, to sacrifice everything for posterity. A man has to have it in him to become a symbol of freedom. That's where the decision must come from."

"I'm not a fighter. Never was," mused Lowell. "Just a teacher struggling along to make ends meet the best I can."

"True," Foster agreed. "But then if you weren't a teacher there would be nothing to talk about. The situation would never have arisen. And by the way, since you bring up the matter of being a teacher, I might mention in passing — not to influence you, of course — that the University is looking for a computer expert who would be interested in a full professorship. If you were thinking of moving south, I am certain the job would be offered to you."

"Me?"

"Of course. Who else but the



creator of Compo? Who else would be qualified to teach courses in Computer Logic and Patterns of Computer Thought?"

Lowell leaned back in his chair, dazzled.

He didn't know what to answer. Georgia, the center, the hub of computer research in the south was thinking of offering him a job — a full of professorship — teaching the courses he'd always dreamed of teaching, in a place where it could be taught openly. What physicist wouldn't do anything to teach at Georgia?

With a position like that waiting for him in the progressive, scientific south, what need was there for him to worry about security? tenure? his academic future? Why worry when he could go where the results of his research and teaching would be appreciated?

But what would Hannah say about it?

It would astonish her at first, and then she would try to hold him back. She would remind him of his family and his responsibilities, and that it was rather late in life to be pulling up roots and starting a new career in a new place after this mess was over.

He suddenly found himself angry. Well, why not? He was only forty-two. And with the University of Georgia ready to give him a position, his greatest work lay before him.

He pulled out a handkerchief and wiped his damp hands. "All right," he said. "I don't know what it will cost—but I'll do it!"

IV

Although the highways, turnpikes, throughways and superhighways into Newark were adequate to maintain the influx of reporters, dignitaries, hawkers and curiosity seekers of all nations, the two-lane blacktop road leading from Newark to Barkerville was not. It jammed traffic from bumper to bumper for nearly two weeks preceding the trial.

The State of New Jersey vs. Associate Professor Harold Lowell had put the college town of Barkerville on everybody's roadmap. From the moment the word spread that the great trial lawyer Albert J. Foster was going to put a computer on the witness stand to prove that it could think, Barkerville became a boom town.

Roadside stands mushroomed. Traffic moved so slowly on N.J. 754 that hawkers were able to move freely in and out among the overheated autos to peddle ice cream, popcorn, sandwiches and "Anti-Automation" buttons. And many out-towners pulled off onto the grass and picknicked along the way. It was certainly the biggest entertainment Barkerville had offered her neighbors since the trial and execution of the "peeping-Tom-madman-murderer" twenty years earlier.

At ten o'clock on the morning of Thursday, July 25th, Judge Ira Fenton entered the courtroom. He peered at the defendant as if he'd interrupted a good night's sleep, seated himself hunched up forward and nodded to the clerk.

All these weeks of preparations had a curious effect on Harold Lowell. At first he had been afraid. Then, as the fear and insecurity dropped away, it was replaced by a sadness for the carnival illusion, the bread-and-circus atmosphere in which the drama would be staged. He had been fighting the strange feeling that he had been tricked and was being used by both groups — as a martyr by the automation-progressive South; as a scapegoat by the anti-automation North. This was the great tug of war. And he, Harold Lowell, was the knot in the center of the rope.

Though he found himself oddly serene and above it all, there was one question dangerously unraveling the fibers of his confidence — a question that at first he had not dared to ask himself. Now that the trial had begun he began to wonder. Why was he, Associate Professor Harold Lowell, Ph.D., letting himself be used?

As the judge gaveled the courtroom into silence and motioned for the prosecutor to begin, Lowell had the feeling that before the trial was over he would know that too.

The first two days held no surprises for anyone. Dean Gerrity, students, colleagues were all called upon to tell what they knew about the alleged teaching of computer-thought at Barker Teacher's College. From time to time the lank, waxy-faced prosecutor would point an accusing finger at the computer resting on the glass-topped table, with the green exhibit A tag tied to its audio knob, and ask the wit-

nesses if in their considered opinions — under oath — the alleged computer, allegedly known as Compo, might in any way be said to be capable of thinking.

One by one the administration, the faculty and specially selected members of the student body repudiated Harold Lowell's teachings.

The strange thing was that Harold Lowell found it impossible to hate them all as he had hated them just a few short weeks ago. As he watched Dean Gerrity under direct examination attack him and everything he stood for, call him an oddball and an incompetent and swear that the reason he hadn't been promoted to full professor was that he didn't deserve it, he felt his throat tighten. But almost as soon as it started, the tension broke. He found himself unable to hate Gerrity. He thought about the dean's position and the pressure that had been brought to bear on him and his family. Knowing why Gerrity had to be against him he felt sorry for him.

It was the same with each of the others. Now that he felt right and sure of himself, he relaxed and understood each man as if the motives were clearly defined on an X-ray negative as cancer of the spirit. He noticed that the students they brought to testify against him were all those who had failed the midterm examination. Compo had graded them uncompromisingly.

Albert J. Foster began his defense by taking the steam out of the prosecutor's steamroller.

"Your honor," he said, nodding at the bench, "and ladies and gentlemen of the jury. We wish to make it very clear at this point that much of our distinguished prosecutor's labor has been in vain. I regret that so much of your time has been taken up by impertinent adolescents who enjoy seeing the reputations of their elders besmirched.

"Our client has never once denied the fact that he designed and built this computer known as Compo, nor have we ever denied the fact that he believes *and has taught in his lectures* that this computer is capable of thinking. I remind you of that so that we may save the prosecutor the time and trouble of proving it to you."

Foster walked up and back, looking into the eyes of each juror as he spoke. There was a simplicity and disarming straightforwardness in his manner that captured even this hostile audience.

"Our defense will be based on two simple ideas. One, that the New Jersey Law against teaching Computer Thought is a violation of academic freedom and freedom of speech and is therefore unconstitutional. And two, that what Professor Harold Lowell, the defendant, taught in his lectures was demonstrably true.

"It is with this second thought in mind that I request the permission of this court to bring to the witness stand the computer about whom this remark was made. Since Professor Lowell was in his lectures always discussing Compo — exhibit A — I request the right to put ex-

hibit A on the witness stand for questioning."

At this long-awaited announcement of Foster's intentions, the audience's roar sucked back into the sea of flesh and out like a receding wave into the hallway, where the proceedings were being watched on TV sets, and out into the mob on the street.

After two full minutes of gavel banging, Judge Fenton managed to restore order. He wisely refrained from trying to have the courtroom cleared. He recalled no doubt, that an enraged mob in nearby Ventura had once responded to similar provocation by burning the courthouse to the ground.

After a quick estimate of the temper of the audience, and a short conference at the bench, Judge Fenton agreed to permit Compo to take the witness stand.

The confusion started almost at once. How did they swear in a computer? Should they use the Bible? Would it mean anything to ask it to swear to tell the truth, the whole truth and nothing but the truth so help it God?

Fortunately, Compo was able to resolve the issue. He assured the judge and the astonished jury that although he was not certain about a computer's place in Heaven, he believed in the same God that the rest of them did.

After a nervous clerk administered the oath, two confused police officers carried exhibit A to the witness stand.

His first objective accomplished,

Albert J. Foster now took the courtroom stage in the dramatic manner that had won him an international reputation. As he began to question Compo about his beliefs and thoughts, the St. Bernard was transformed before Lowell's very eyes into a relentless hound, barking out question after question in an attempt to show the jury and the world what Compo was capable of.

At first the questions were simple ones. Who had made him? Where? When? And then slowly they became more complex, to display the computer's knowledge of human affairs. Why had he been brought here? Why was Lowell on trial? Why had Foster been sent to defend him?

As Compo answered the first questions, the audience — most of whom had never seen a computer or heard one speak — gasped and buzzed in awe, as often happens in the first moments of a daring high-wire act. But as Compo went on, the murmur trailed off until there was only the silence of fear.

They were witnessing that phenomenon which they had always denied and must always continue to deny.

At one point the court reporter became so engrossed in watching the witness that he forgot to take down the proceedings. Fortunately, Compo was able to refer to his tapes and repeat it verbatim while the reporter took it down.

Finally, having laid the groundwork, and sensing that he had prepared the audience and the jury to accept what they heard from Com-

po, Foster moved on into no-man's-land.

"Compo," said Foster, offhandedly, as if it were some little point he had just thought of, "would you say you're thinking right now?"

The question caught everyone off guard. Instead of grumbling, roaring and rioting, they all leaned forward to hear the answer.

"Yes," said Compo.

"Tell us," said Foster, pointing an almost accusing finger at the witness. "Tell us what you're thinking about."

After a moment of silence, unlike the rapid-fire rejoinders to the earlier questions, Compo answered slowly. "*I am thinking that when Dean Gerrity made the remark that Associate Professor Lowell was incompetent and did not deserve to be promoted to a full professor, he was substantially correct in his evaluation.*"

Harold Lowell felt it as if it were a slap in the face. He sat there rigidly trying to absorb the blow without letting anyone see how it had stunned him.

Foster tried to regain control of the situation by asking another direct question. "Would you say that Professor Lowell's remarks in his lecture, to the effect that you — a computer — are capable of thinking, were substantially correct?"

There was again a pause before Compo answered. "*Insofar as it is possible for a man of Associate Professor Lowell's limited abilities to understand the scope of computerology, I would say yes.*"

"Please answer the question simply yes or no."

"Yes."

"Well, then," snapped Foster, "would you say that Professor Lowell had the right to teach in his classroom the doctrine that computers like yourself are capable of thinking?"

"That, of course, first touches on the point of whether or not, a man of such limited ability as Associate Professor Lowell has any right to teach at all."

There were snickers and there was laughter. Lowell saw many of his colleagues nodding at each other knowingly. It was what they had said all the time.

He felt as if he were suddenly standing alone and naked on a window ledge with the cold air whipping at his legs and the sound of laughter from the darkness below.

Why did they all despise him so? If only they knew how much he had wanted them to like him, to accept him as one of them! He thought of all the times he had done things for them. Hadn't he saved Spoloff's neck once, and the rest of those on his committee, when he assured the president of the college that the reason for the committee's failure to estimate student registration properly was due to errors in the figures he, Lowell, had given them? And the others. Hadn't he often stood up in committee discussions and confessed it was his fault alone that reports were not ready in time? Why hadn't they all seen that everything he had ever done was to be part of them?

He suddenly realized that Foster had stopped questioning Compo, and was slipping into the chair beside him. He had cut his direct examination short when he realized that the computer's hostile answers were an obvious, brutally direct attempt to discredit Lowell.

"It was a terrible mistake to put him on the stand," whispered Foster "For some reason, he's out to destroy you."

Lowell shook his head sadly. "You had to put him on the stand. It was the only thing to do. No. It must be something I've done."

"But what's gone wrong? Why is he doing this to you?"

Lowell smiled and shrugged. "How do I know what's going on inside those circuits? What's more important for me to know is why I did this to myself."

The laughter and chattering stopped as soon as the prosecutor got up to cross-examine the witness. Watching the faces of the spectators, Lowell soon lost them in the blur of memory...

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He was seven or eight years old. Instead of a courtroom, he was in a classroom. Instead of spectators, schoolchildren. Instead of judge, jury and prosecutor, Mrs. Trumbull, asking who had written the dirty words on the blackboard before she had entered the room.

She shrieked and stormed at the frightened children. Unless the culprit came forward and took his punishment, she would punish the en-

tire class. Lowell hadn't done it, but he got up slowly and dramatically and walked to the front of the room.

Class hero from that day on. Whipped for his friends — so what did a beating matter? He had never forgotten the warm, clean feeling it had given him to sacrifice himself for them.

And now he knew why he was allowing himself to be sacrificed here today.

“— object, your honor!” Foster was on his feet, protesting vigorously to a question the prosecutor had just asked Compo. “That is a leading question, intended to elicit remarks that will defame my client.”

“Overruled.”

“Your honor, I protest!”

But Lowell's hand restrained his attorney's arm. “Let him answer. I want to know what's changed him. I want to hear what he's got to say.”

Foster was annoyed momentarily at this interference, but seeing his client's determined stare he sat down. “He's going to tear you apart, Harold! He's making you look like an incompetent fool. He's ruining you!”

“I know that.”

“Then let's back down. I can make a deal with the prosecutor if we change our plea.”

“No. I know now what I'm doing here, why I got myself into this in the first place. Now I want to know why Compo has changed — why he's doing this to me.”

Foster threw up his hands and settled back. “It's your hide. I've warned you.”

The prosecutor repeated the question. “Now, will you tell the jury in your own words why Harold Lowell is in this courtroom today?”

Compo's voice was clear and the monotone gave his words a feeling of authority. “*It is my evaluation that Associate Professor Harold Lowell became involved in this matter in the mistaken belief that self-sacrifice is noble. Actually, he has always used it as a means to an end.*”

The spectators roared, and Lowell felt their hatred wash over him. But Compo was not finished.

“*Associate Professor Lowell's statement that I, and many computers like myself, are capable of thinking is correct. What he should have gone on to say is that he used the result of this thinking to advance himself. Lectures, examinations, grading papers, even research. All the thinking done by a computer was used by Lowell to keep himself in a position for which he was not qualified.*”

Foster started up to object again, but Lowell gripped his arm.

“Don't bother. In his way, he's right. That's what hurts most. All the time I thought of him as a friend. You know, another thing occurred to me that I never realized before. All the people I've stood up for all my life — those kids in Miss Turnbull's class, in the army, at the college — weren't my friends at all. *None of them.* They didn't like me before, and they liked me less after I took their punish-

ment on myself. I just wanted them to like me good, Albert."

Foster stared at him curiously and shook his head. "What will happen to you after this? There isn't a school in the country that will touch you now. That Georgia job ... I don't think ... I'm sorry..."

"It's not your fault."

"I talked you into this test case."

"No, I don't think so. I think my remarks in that lecture hall — as Compo says — were no accident. Something inside me was pushing me into this. Now at least we know what it was."

But there was one thing he still didn't understand. Why had Compo betrayed him?

As the guards began to take Compo down from the witness stand, a messenger came forward to deliver a telegram to the judge. He read it, frowned and deliberated for several seconds. Then he called the prosecutor and the defense attorney to the bench.

"Since this communication has a definite bearing on the case, I propose that it be marked and recorded as exhibit B, before I have it read to the jury. Do either of you have any objection?"

Both men read the telegram and agreed that it should become a part of the record. When Foster returned to his seat he was unable to look into Lowell's eyes.

"This," said the judge, addressing the jury, "is a telegram just received by this court from the University of Georgia. The clerk will read it to you."

The clerk rose and began to read his slow, nasal singsong:

"University of Georgia, Department of Computerology, informs Judge Fenton that it has this day purchased from Barker Teachers College, for a half million dollars, the portable computer COM-4657908 known as 'Compo'. It furthermore—"

The murmur that filled the courtroom made the clerk's voice inaudible. Judge Fenton had to gavel for silence. Lowell felt a strange tightness in his throat as he leaned forward to hear better.

Someone behind him said, "That's a lot of money for a computer."

When the noise subsided, the clerk continued: "It furthermore announces that in line with its pioneering efforts in the fields of computer technology and the use of teaching machines, it will install Compo in the physics department as the world's first Computer-Professor beginning this fall."

The spectators roared and shrieked with glee, except for the college teachers in the courtroom, and the laughter spilled out into the crowd on the street. The thought of replacing a professor with a teaching machine was a joke they understood.

Now Harold Lowell understood why Compo had betrayed him, attacked him and made him appear incompetent. No, he didn't hate him for it.

A man — or a computer — does what he has to do. **END**