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the

WITH A SLOW, wondering shake of his head, the tall young man in the one-piece flying suit read the epitaph for the third time.

robot carpenter

by . . . Frank B. Bryning

JOHN SMITH, KNOWN AS THE ROBOT CARPENTER, AND ALSO AS MPR 15, WHO WAS NOT BORN OF WOMAN BUT WAS MADE OF MAN. YET HE WAS A BETTER MAN THAN MANY ANOTHER OF WHOM IT COULD BE SAID: "GOD MADE HIM, AND THEREFORE LET HIM PASS FOR A MAN"

HERE LIE THE REMAINS OF

"Everyone was sorry when he died," volunteered the clergyman standing beside him.

"'Died'?" echoed the airman.
"A robot!"

"Suicided—I should have said."

"That's even harder to accept—unless 'Robot Carpenter' applies to a human being who was, for some reason, thought to resemble a robot?"

"He was a robot truly enough. The inscription is accurate in saying 'not born of woman,' although I am not keen on that last part

"Can Honor's voice provoke the silent dust?" asked Thomas Gray. From the grave's deep silence a robot dared proclaim: "It can!"

Frank B. Bryning has written so many brilliant documentary-type science fiction stories for us that we were quite sure he'd surprise us eventually with a narrative departure such as this. Very gifted writers seldom ride just one "Chariot of the Sun," and here Mr. Bryning has succeeded in moving us profoundly with a warmth and a splendor and a human compassion almost too deep for tears. John Smith may be buried, but you'll never, never forget him.

which implies that he was better than some of God's handiwork! But the late John Smith was, in truth, a man-made machine with an electronic brain."

"How then-?"

"He was humanoid in form, metal-skinned, with two arms and two legs. His hands were made rather like God's design for human hands, yet with a number of specialized variations which were presumed to make them better hands for carpentering."

"And were they?"

"Possibly. Certain it is that, provided he used his own kit of tools, with their special grips for his metal fingers, he out-classed any human carpenter in the speed and precision of his work. But with an ordinary carpenter's kit, made for hands of flesh to grip, his metal fingers would slip unless he gripped so tightly that he bruised the wooden handles. In such circumstances he was still an expert carpenter, although slower and fumbling."

"How did he happen to be made? We never heard of robot carpenters before the War."

"World Robots produced him as a laboratory experiment in the direction of a multi-purpose robot—although his 'manifold' purposes were to be specialized within the field of carpentry. He was given almost human attributes, such mental processes as were necessary for him to understand what might be required of him. He had to read

and write and calculate, so as to be able to work from plans, to be able to 'get along' with human beings with whom he might have to work, and to be able to learn new things, and apply them."

"Something near the bill for a complete mind, I should say."

"Apparently they found that out after they made him," agreed the padre. "Most robots, as you know, were fairly narrow specialists in one thing or another. It is usually more efficient to have a separate mechanism for each distinct purpose. But for this one they evidently had to make a mind almost as complete as a human mind, in order to meet the requirements. Or, to say it the other way around, when they made his mind capable of meeting those requirements it turned out to be of caliber good enough to do most other things."

"Strange we never heard of him before the 'blow-up.' He must have been completed then."

"Years before. And he was a great success, functionally. But they never put his type into production because they couldn't see their way through the labor relations problems. You will remember how touchy things were in that field in the years before war broke out! It was regarded as certain that human carpenters, joiners, furniture makers, cabinet makers, and others would see in robot artisans such a threat to themselves that real upbeaval would result.

"So he was stored with a num-

ber of other experiments while they tried to work out the implications of the problem or find other fields of work where they would not run up against the same difficulties."

"What about the dangerous trades—explosives, chemicals, atomics?"

"I believe they were exploring such possibilities when the War began. But metal bodies, fingers, and feet are hazardous in explosives, and of poor survival value amid chemicals. And radio-activity can make an electronic brain just as sick as it makes a body and brain of flesh and blood. They had no solution before the War put a stop to their work.

"And then, of course," supplemented the airman, "organized society in large communities ceased to exist after a few weeks—and large scale industry, too."

"Yes. Since then history has been of our beginning again in little communities like this one, with people like yourself working on communications to link us up." The padre smiled wryly and gestured towards the headstone. "Yet John Smith could enter this type of society without disrupting its economic relationships. Indeed, since skilled artisans are at a premium in small communities where there is no industrialization, he could become a tremendous asset. And so he did for us. He came to us in a time of great need for such as he. Or rather, we sent for him, as it were."

"Sent for him?" he asked. "It was this way. You realize, of course, that this village was almost untouched by the bombing, although the big industrial city of Richwood, forty miles away, was devastated. World Robots had their big factory and experimental laboratories on its outksirts. It was our experience that after the blowup the population of our village increased rather rapidly for a time by the influx of refugees and stragglers who had, for one reason or another, escaped death in the cities or were out of town when the bombing occurred. They had to find some place to anchor themselves again. I suppose much the same thing happened elsewhere?"

"It did," the airman agreed. "There were many conflicts and uneasy solutions, and upsets to peaceful small-town existence as a result. In some cases small villages were ravaged and looted. Others were occupied by strangers to the eviction and exclusion of most of their original inhabitants."

"We escaped most of that sort of thing, thank God?" the clergy-man testified. "We are pretty well isolated here, and Richwood was the only real city within three hundred miles in any direction. We managed to absorb our refugees without any serious upsets. Our immediate needs were to increase our food supplies, and next in importance was our housing. We put most of our newcomers as well as the biggest percentage of our own

people on to the business of growing, tending, hunting, and foraging food. House building took most of the others. Clothes had to come a bad third."

"It seems anomalous that there should be a housing shortage anywhere in a country that had lost more than half its population overnight," commented the airman. "Yet it had to be so when the cities were no longer habitable."

"It was so with us, and with other small communities, no doubt, who had to accommodate a sudden increase of refugees. Our few artisans in the trades of building, plumbing, and furniture making were hopelessly overtaxed. That was why we could welcome John Smith."

"Surely he was not a refugee!"
"By no means. But the idea came from one of our refugees who was assisting in the building work. He had been a plant maintenance man and caretaker in the World Robots plant. He knew of 'Multi-purpose Robot Fifteen' which they had made and stored away. He proposed that he should go back and retrieve MPR Fifteen if it were not destroyed. He thought it likely that the underground store-rooms might be undamaged.

"So he and a companion walked the forty miles to the ruined city, in the outskirts of which were the remains of World Robots' plant. They found MPR Fifteen intact. Their greatest difficulty was in digging through the rubble in another part of the plant to get an electronic battery for him. This took them two extra days, but they were back here in exactly one week, with MPR Fifteen striding between them, carrying his two kits of tools like suitcases, and conversing gravely in impeccable English."

The airman smiled. "So he became a village artisan. But how did he come to be buried here with such honor as this epitaph accords him?"

"Let us sit down," said the padre as he led the way to the porch of the church. "MPR Fifteen became a tower of strength immediately in our little community," he continued as they sat down on the steps. "His energy was enormous, and with his virtually inexhaustible electronic battery he was tireless. As a carpenter he could do the work of about six men each day. In our most acute period he insisted on working twenty-four hours a day, stopping only every six hours for a few minutes to top up his lubrication reservoir.

"He was incredibly accurate, and so positive in his every act that he never had to go over anything a second time. When he was on a house framing job and required some assistance at the other end of long timbers, it was all that two men could do to keep up with him. When he was nailing floorings it was almost as if a sewing machine were stitching them."

"I was told, in the village," said the airman, "that the end joints of his fingers could be used as nail sets. I didn't really believe—"

"The little finger and the index finger of his left hand," qualified the padre. "He could extend a tapered point from either of these fingers as easily as a cat puts out its claws. He would touch two nailheads at once with them, tap the back of his hand once with his hammer, and the nail-heads would be neatly set an eighth of an inch or whatever he required below the surface of the timber."

"I see," said the airman. "Tools were built into him like specialized robot typ—"

"Some, but not so many as you might expect," replied the padre. "Remember, he was a multi-purpose robot, and was conceived as a user of tools rather than as a sort of super multi-bladed pocketknife. His feet were made exactly twelve inches long and six inches across the front. The inner edges and the front edges made perfect right angles. The outer edges sloped back from the front at perfect sixtydegree angles. The three sides of each foot were calibrated. The heels were perfectly circular, three inches in diameter, and calibrated in degrees of a circle. At the center of the back of the heel where the tapering sides of the foot would have met in a thirty degree angle, these was a deep cleft to mark the point.

"The hands were primarily grip-

ping hands, with the end thumb joint a perfect inch measure. Thumb-tip to little finger-tip, extended and locked, was exactly twelve inches-and so forth. His forearms, from wrist to elbow. measured exactly eighteen inches, and were calibrated in inches. The straight edge of his left forearm was his most used rule. His wrists could be locked rigidly in right angles, and so could his elbows. Inset between his left wrist and elbow was a calibrated channel with a vernier scale that made his forearm a slide rule."

The padre stopped himself, for the airman, marvelling, was shaking his head slowly once more.

"I can't imagine just why he wasn't made with six or eight limbs—one a power drill, one a saw, one a—"

"He had all those in his tool kit -saws, drills, screwdrivers, nailers, staplers, riveters, grinders, sanders, and so on," explained the padre. "But you must remember that if he had had all those specialized limbs, only one would have been usable at a time—or at the most, two. The rest would have been not only idle, but also encumbrances. As it was, his were the only power hand tools usable in the village since our electricity production had ceased. All were plugged into his own energy supply in a socket approximately in the vicinity of what would have been his navel, had he been born of woman."

The young man laughed softly. "That, surely," he said, "was a little bit of whimsy on his designers' part!"

"Who knows? Yet it was a very logical location. Each tool operated from the same short spiral flex that coiled close to John Smith's -ah-'solar plexus', if I may use the term. It would extend or coil down as he used the tool at arm's length or close to his body. In all his actions he could bring to bear a delicacy of touch superior to that of the finest watchmaker-or a strength that was tremendous. In situations where, for instance, a cramp would normally be needed, the grip of his hand, or pressure between his arm and his side, his hand and his hip, or knee and knee, was sufficient. And, being quickly applied and relinquished, these grips saved an enormous amount of time as he worked."

"I can imagine that he would wear out, in time—possibly in a rather short time if he kept going twenty-four hours a day," remarked the airman. "But I don't see how the term 'dying' can properly apply to him in any circumstances."

"I suppose that was because we all came to regard him as a personality more or less like any other of us. We came to recognize him as a being—and a citizen—rather than a mechanical device, or a machine. And he seemed to want it that way—to be one of us—to identify himself with us as a group. It was probably why he selected

the most common of all names, John Smith, and asked us to call him that, instead of his factory serial number, MPR Fifteen.

"It was rather remarkable, I admit. Yet having had a lot to do with him, I can see that it was inevitable. It is to be explained, I fancy, by what I mentioned before. To give his electronic brain the capacities it needed for him to function properly as a carpenter, to apply his built-in abilities with discretion, to understand plans and work from them, to be able to investigate and learn, was also to give him reason, and something like curiosity, too.

"It had to mean giving him understanding of the why and wherefore of the work he was to do. It meant he had to have an appreciation of the difference between good work and bad, a satisfaction in the one and a distaste. or antipathy, or dissatisfaction with the other. He had to be able to recognize merit and demeritgood and bad-in his work, and in the results which would flow from it. I believe, in giving him this, he was inevitably given the means of distinguishing between good and evil, wherever they be found."

"Within his limited frame of reference," qualified the airman.

"Which appeared to be no less capable of extension than yours or mine," added the padre. "He certainly widened his frame of reference very rapidly! He was a keen observer—and critic—of human behavior. He read a great deal, spending most of the time we spent sleeping, first with my books, both sacred and secular, then in our Municipal Library. After that he read everything in the library of my good friend McQueen, the stonemason, who is, incidentally, a freethinker. He has a most comprehensive collection of volumes, including the only Encyclopedia Britannica in the village."

"Stonemason?" repeated the airman. "Was it he who lettered that headstone?"

"The same," acknowledged the padre, "and a fine, good man he is, despite his unbelief. John Smith spent even more of his time with him than with me—reading and talking."

"And was McQueen responsible for the wording of the epitaph or the last part of it?"

"He was. I can see him smiling at me through it whenever I read it. It upset my vestry right at the start, and I had a lot of trouble to prevent them removing it from the graveyard, and John Smith's remains as well."

"You justified the wording to them?"

"I could hardly do that. But I did insist on McQueen's right as John Smith's friend to place his own kind of tribute with the remains, just as I insisted on my own right as his friend to grant him burial here as he had requested."

The padre gave a sudden bright

smile. "They gave in. Their power is not what it was, since replacements are not to be found, nowadays, for positions like mine. Besides, I could find no positive untruth in that epitaph—and neither could they!"

"Do you think, then, that John Smith had anything more than the mechanical ability to think—anything more than the 'mind,' if we can call it that, of a computer?"

"A soul? Not what we call a soul—God-given. No. But I think it did follow from his ability to distinguish good from bad in most things that he came to accept our recognition that what is wholesome for us as a social group is good, and that what is 'unsocial' is bad. In short, he acquired what McQueen calls a 'social conscience.' Something of the sort he undoubtedly had, and to a degree no less than the best of us, as his sacrifices for others testify."

"Sacrifices?"

The padre lifted his chin, and nodded once, emphatically.

"I should say heroic' sacrifices.
"The first one occurred when he was at work with a team of building tradesmen on our school extension. A concrete lintel began to give way, and the brickwork above it began to sag. John Smith was the first to detect it, and he promptly stood beneath the lintel, supporting it with his metal limbs. He locked his elbows, shoulder sockets, hips, and knees, to make of himself a single metal support.

"He held the sagging lintel, and in his always unemotional voice, loudly called all the men off the scaffolds. He stayed where he was until the last of them had scrambled down and run out beneath the lintel. When they were all clear he suddenly withdrew, at top speed—that is, he intended to...

"In actual fact his strained joints functioned imperfectly for the first time in his existence. He had been subjected to a strain greater than he had been built for. His legs and arms had become bowed. As a result the elbow, shoulder, hips, and knee joints were strained slightly out of their proper alignment. He was slower in action than his electronic brain anticipated. He was battered to his knees by an avalanche of bricks before he could get clear.

"Although he struggled up and got out to safety in a few seconds, he emerged as a distinctly rickety and gangling contraption compared with the finely integrated precision mechanism he had been."

"Presumably," suggested the airman, "he could be repaired?"

"Some blacksmithing straightened his bowed limbs, and our garage panel-beater took the dents out of his carapace and cranium. But always, after that, John Smith was what he called 'ailing.' His strained joints were never quite right again. The tempering of his legs and arms was never brought back quite to what it should have been. The fine accuracy of his forearm straight-edges, and his sliderule was impaired. And his brain mechanism had been jarred badly enough to malfunction occasionally.

"For the first time in his experience he began to make occasional mistakes in calculation. He began to do inaccurate work with the saw, or drill, or plane. He would sometimes mishit nails—even miss completely, now and then. It seems a queer thing to say, but he became as fallible as a human carpenter—even to hitting his own thumb once or twice!

"I have become unreliable,' he complained to me. 'I am becoming unworthy to work amongst men.'

"'You mean you are becoming more like men,' I answered, somewhat flippantly, perhaps, but I was trying to make light of his worries. For worried he was, I knew, despite his entire lack of facial expression to indicate it. But it was no use.

"I am becoming a danger to those I work with," he persisted. 'Yesterday I dropped my saw from the rafters, and it fell within inches of my colleague Arthur Simpson, on the floor below. Two days before that my hammer flew from my hand and broke a window pane.'

"I tried to reassure him, but he was too logical.

"'It is possible for a human being, a man of flesh and blood, to repair himself by rest and the regeneration of his tissues;' he said. 'But not for such as I am. I have to be operated on, you might say, and have my worn parts replaced or repaired. And the metallurgy to do that properly for, say, my bearings, cannot be undertaken in a village smithy. It would require such resources as those in the plant where I was made... All that is finished now.'

"I ventured to suggest that there might be stocks of spare parts at the plant, even then.

"Not for me,' he replied. 'I am the experimental prototype, not one of a model in production. I shall either wear out or break down eventually.'

"Well,' I said, in the hope of cheering him up, 'you are not seriously impaired even if you have no longer the perfection you once had. You are, if I may say so, more human—and for just the reason that you are now prone to occasional lapses as we humans are. Such minor accidents as you describe are happening with us all the time."

The padre shrugged his shoulders, and stared silently across the little graveyard for a few moments.

"Within another week, however, things were much worse. There was a fire which burnt out our hospital, and in the course of which John Smith proved himself to be nothing less than a hero. That there was no loss of life was entirely due to him. To the last he went in and out through the heat that would have killed any man, bringing out the patients, wrapped in their own bedding. On his final

trip, carrying a brave young nurse enveloped in blankets and mattress, he fell through the burning staircase into the heart of the fire on the ground floor.

"A great shout went up as we all thought they were gone. But even as I began to pray, John Smith was seen to stagger to his feet, clasping his now burning bundle, and to plow his way through the flames.

"They played their hoses on him and he emerged from the fire in a cloud of hissing steam and smoke, to totter and fall on his back at the edge of the lawn where the heat was just bearable to us. His charred and smouldering burden fell open like a split banana, and out rolled the nurse, singed and half-suffocated, but otherwise unharmed.

"With the best intentions they turned their hoses on John Smith again, but at the first touch of the water he leapt to his feet.

"'Do not put water on me!' he roared, and blundered away into the garden. 'Let me cool in my own time!'

"I followed him and found him pacing back and forth in a corner of the garden, still near enough to receive some warmth from the fire, swinging his arms gently, flexing his fingers, and rolling his head about on his neck.

"'Are you all right, John? I asked anxiously. It was the usual foolish question one does ask on such occasions. Then I made it

worse. 'Do you feel— I mean, are you hurt—injured? Can I do anything for you?'

"Ha! Ha! he said, for he had no laughter, and had long since adopted this method of revealing amusement. 'Do I feel? Am I hurt? It is hard to say, Padre, and hard for you to ask without using the terms which apply to flesh and blood, is it not? How can I answer, except in the same terms?'

"Do you think, then, that you will be all right?' I persisted.

"'I do not know, Padre,' he replied. 'I have experienced heat and cold before, but never such heat as this time. I am aware of the extra activity of the molecules of my heated metal-and even in the very functioning parts and components of my brain. My mind is functioning correctly, I think. I am what you might call "fevered" all over -and in my head, too. My hope is that all my parts will cool evenly back to their former sizes, tempers, adjustments-and balance. Yet I fear that may be too much to expect."

"I should think it hardly possible," said the airman.

"It was too much to expect. By the time he had cooled down the splendid machine that had been MPR Fifteen and known as John Smith, the Robot Carpenter, was no longer splendid. It was crippled, if I may put it that way, both physically and mentally.

"We did our best for him. The blacksmith and the garage man got

his arms and legs and neck working again, and properly self-lubricating. With panel-beating, riveting, and polishing, they made him presentable. But we had no electronic engineers, and no robot brain experts, so we could not attempt to mend his mind.

"He had become what we can only call mentally deranged, or—aberrated—or—"

"Irresponsible?" offered the airman, as the padre paused for a word.

"No! Not irresponsible! He was never that—least of all at the last.

"He tried to do his work as a carpenter again, but it was hopeless. He sawed and hammered and drilled, but he made nothing except disconnected fragments—mitres, tenons, a misshapen window frame, clapboard sidings nailed to flooring joists, and such like. In a lucid moment he looked upon a pile of this futility, and raised his hammer as if to smash it all with one blow. Then he dropped the tool, turned his back on it all, and went away.

"I saw him on his way through the village. Anyone who had not known him would have thought him intoxicated. He reeled like a drunken man. In the main street he fell on his face between two children, knocking one down—a little girl. The mother's scream of terror was harrowing to hear.

"John Smith got to his feet and apologized gravely to the children, who didn't seem to mind—they all knew and liked him—and to the mother, who was still shaking with fear when I reached them. I took his arm and we came here to the church and sat on these steps as you and I are sitting now. He reminded me then that I had promised him that when 'his time came' he might be buried in this church-yard.

"'Of course I remember, John,' I told him. 'But you don't have to think about that yet. You've got plenty of time ahead of you. And we might find a robot brain expert yet—'

"'I think not,' he replied unemotionally. 'And I have become a danger to people. I know what I must do.'

"I tried my best to reassure him, and I thought I had succeeded for the time being. He asked if he might sit in the church for a while—and think it out. I left him there, as I had done many an evening before. He would always let himself out through the vestry, and close the door carefully behind him.

"We found him next morning, in a heap on this path. He had gone up to the belfry and dived on to that flagstone... You can see where it is cracked. He had smashed his head completely."

The airman had risen and gone to the flagstone, where he was tracing the crack with the toe of his shoe.

"Then you, too, consider he had developed a social conscience?" he said. "You believe he destroyed

himself for the sake of the people he had learned to 'live' amongst for the sake of the better survival of his social group. Is that it?"

"We think so, most of us," acknowledged the padre. "McQueen insists that it is so. 'Greater love hath no man than this...' he quoted at me at the time. But of course he is committed to the view that moral codes derive from social necessity rather than divine injunction."

"And why did John Smith want to be buried in your churchyard? Did he give a reason?"

"None. McQueen says it proves he had a sense of humor. But that is just his way of teasing me. I imagine John Smith wanted to think that he would always be one of us. He wanted to identify himself with us as completely as possible, for some reason. He did not want to think that he would be cast out, as it were, or, literally thrown on a junk heap, after he wore out.

"At all events, I couldn't refuse him, since he *bad* become, quite definitely, one of us—and even quite dear to us. Moreover, I could never forget what he said on the occasion he asked if he might join my congregation."

"I don't think you have told me that."

"No." The padre was smiling wistfully. "I cannot think with any pleasure of my rather lame attempts to point out that he could not be, in any real sense, one with

us... that the Creator had not, apparently, made any provision for the salvation of—well—man-made mechanisms which had not been vouchsafed souls. I was trying not to put it baldly, or to appear to be claiming superiority.

"But John Smith was without the power to feel rancor. And you must bear in mind that his voice had no inflections or intonations which could impart an emotional tone to his words. So I cannot say he did not intend to be proud, or sardonic, or pleading, or whatever you may care to impute. My own opinion, though, is that he spoke with reverence and humility. At all events he said, simply and directly, stating the fact:

"'After all, He was a carpenter, too, was He not?'"