

DEVIOUS WEAPON

BY M. C. PEASE

Essentially, the trouble came down to this; you can make a machine play chess, but you'll never make a good poker player out of a calculating mechanism! It inherently lack one essential—

Illustrated by Quackenbush

The officer of the Minister of Foreign Affairs for the Federation of Worlds was in a turmoil. Men dashed in and out with harried looks. Secretaries typed at breakneck speed. The teletype in the corner rattled on without a pause.

The door opened and the minister, himself walked in. He looked around grimly, with an eye that warned of dismissal or worse. His staff was very worried as he sat down and looked at his second-in-command.

"Now, tell me what happened, Jordan."

"Yes, Mr. Gorrell. According to the only messages we have received, either directly or through the ambassador from Dorn, Prince Kallin was expected to arrive a week from yesterday. Inasmuch as we hoped to

obtain extensive concessions from him, we were preparing to receive him with full honors and the most elaborate ceremony. This, you will remember, was the course recommended by the Political Science Calculating Machine as the result of an integration of all known factors."

The minister gave an impatient nod.

"Yes, yes. I know all that. Get on with it."

"Yes, sir. Yesterday afternoon, we got word that a man had registered at the Hotel Biltwood as Prince Kallin. As we wished to avoid any embarrassment when the real prince arrived, we failed to notify Ambassador Lorin, and requested the police to pick the impostor up. According to reports, he offered only token objections. A

search of his baggage confirmed the idea that he was deranged. Weird carvings and paintings were the most obvious aberrations. There was also quite an arsenal of pistols and knives. He was, therefore, taken into custody for observation."

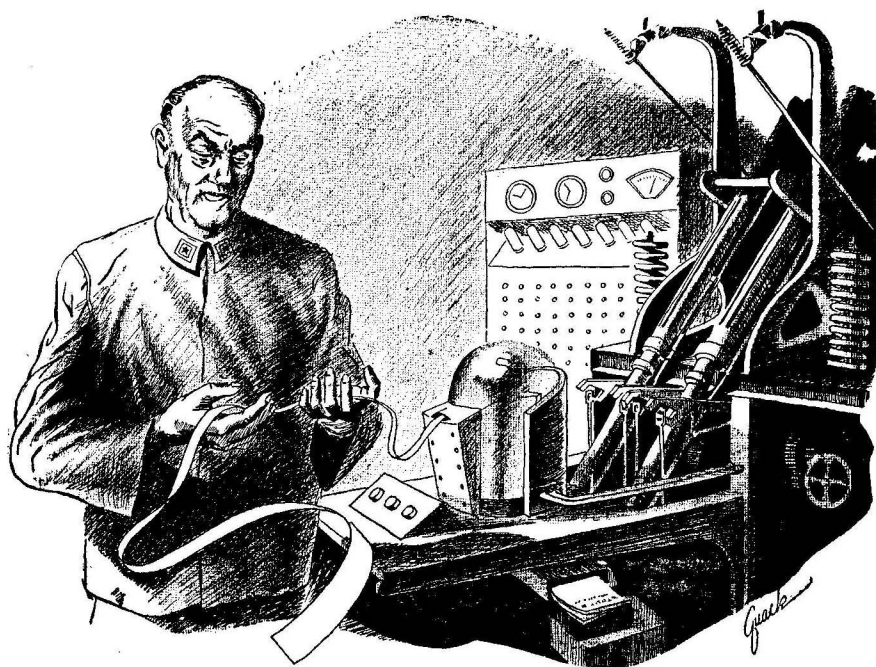
"Go on." The minister's eyes bored coldly into those of his subordinate.

"At the police station, sir, it was discovered that he did, in fact, carry a Dorn passport, in the name of Kerlon Peymor. We then notified the ambassador who came down. And then we learned that he is, in fact, Prince Kallin." Jordan spread his hands, helplessly.

"We released him immediately, of course, with full, official apologies, which he seemed to accept. Very decent about it all, in fact. But, of course, that's a minor point. Even if he doesn't make trouble, we will have to make new plans."

"I don't, offhand, see much to blame you for. I'll try to save you if I can. But the dictator wants Dorn. If he does not get it, I may not be able to help you." Jordan shuddered as he looked down the long road to the concentration camps, from which so few returned.

Correll went on: "Why did he do it? How did he come here, and why?"



"We are looking for the background, sir," Jordan replied. "He came in a small cruising spaceship that landed yesterday at Narob Field. The ship was registered in the name of Peynor, which, apparently, sir, is one of his many legal names. Four men disembarked with him. Their names mean nothing to us and they have disappeared. All in all, sir, it was as inconspicuous an entry as could have been legally arranged.

"As to why, we don't know. He simply says that he thought it might make things interesting. It looks as if he expected and wanted to be arrested. It doesn't make sense to me, sir. The problem has been given to the Political Science Machine. No answer yet, of course."

"We've got to find out why, Jordan. Until we do or the Machine deduces it, we don't know where we are. Until we do, just hold your breath and pray. I'll go talk to him."

It was evening when the minister's party called on Prince Kallin. Diplomacy is normally conducted according to very strict rules of decorum. It is not usual for a visiting delegate, no matter how high, to receive an official visit in a brilliant green smoking jacket with a highball in his hand. Nor was the blond girl who sat on the couch with her feet tucked under her a normal ornament for such an occasion. It did not really improve things when she was introduced as a reporter collecting

background on Dorn. Even so, it might have been all right, except that the prince insisted she stay. The minister's party felt decidedly ill at ease.

But Gorrell was a rugged man. One must be to be a minister under a dictator. To be able to maintain one's wits under all sorts of trying and confusing circumstances is a prime requisite of the job. After one flicker of confusion, his face became impassive and his manner watchfully courteous. His subordinates took their cue from him.

After introductions had been completed and each man supplied with a glass, Gorrell delivered the full apologies of the Federation. The prince, however, waved them aside.

"None but formal apologies needed, sir," he said with a smile. "I fully realize I should have expected nothing else. In fact, I didn't. I assure you I shall make no trouble about it."

Gorrell waited for further comment but, as none seemed to be coming, he opened the subject himself.

"To tell the truth, your highness, we are somewhat confused by your mode of arrival. It was quite opposite to the norm for people in your position." He paused.

"You would like me to explain, eh?" Prince Kallin replied with a smile. Gorrell nodded, deferentially. "I don't mind. It is really very simple. It was obvious from the preliminaries to this business that you wished something from us. It has also been obvious for some time

that, ultimately, you would try to gain control of the League of Border States." Gorrell shook his head and started to object. But the young man, who had suddenly become deadly serious, ignored him.

"The only way you could do that in the near future would be to split the League. We decided that this was probably the opening gambit of that game.

"Normally, in such circumstances, we would arrive in full force with a large spaceship equipped with the largest Political Science Calculator we could get into it. We would then settle down to a long duel of words, using our Machine to analyze the implications in everything you said and trying to make no wrong implications, ourselves. That would have been all right if we were starting from a somewhat favorable position.

"In the present case, however, we decided we were starting from a position that was at best no better than even. And, we would be hopelessly out-gunned. I understand your Machine's reference file, alone, covers more than five square miles. Obviously, your reference data and file of patterns was far more complete than anything we could put on a spaceship. We would have refused to meet you had that been the best we could do. Our refusal would have weakened our position, but the sacrifice would have been the lesser of the evils.

"On analyzing the situation, however, we discovered we could elimi-

nate the machines entirely, and reduce the situation to one man horse trading with the other. And that is what we have done. I doubt if you will get many answers from your Machine while I am here." He smiled coldly.

"But what has that to do with your manner of arrival?" Gorrell asked, puzzled.

"That is up to you to figure out," the prince answered, and smiled.

The rest of the interview was most unsatisfactory to the minister. The young man blandly ignored all further attempts to draw him out. Direct questions he refused, in a direct manner. Gorrell finally gave it up and simply made arrangements to start a full dress conference in two days.

He began to regret that quite soon. In the first place, he discovered the prince had not been fooling. Something had definitely happened to the Political Science Calculator. On all problems regarding Prince Kallin or Dorn, it gave no answer at all. On being presented with one, the sign would flash on saying: "There will be a short wait during the process of integration." Only the wait was not short. It would apparently continue indefinitely, if permitted. Press of other business always necessitated the removal of the problem—unsolved.

But the difficulty rapidly became more serious, still. Irrational answers to other problems of government began to appear. And if ques-

tions were resubmitted, different answers would be given. New and totally different answers to old problems would be given upon the resubmission. The process of the dictator's government began to flounder uncertainly, as the leaders realized that the Machine had become unreliable.

Naturally, the technicians in charge of the Machine dove deep into its vitals. Sabotage was whispered. If so, it was subtle. Each unit checked out satisfactorily. Test questions that activated only certain sections were answered reliably. And the total of these test questions used all parts of the Machine and most possible groups of parts. Yet the operation of the Machine as a whole steadily deteriorated.

Gorrell became frantic. To his mind, sabotage was the only answer. He thought only of the four men who had come with the prince. The entire police, secret police, and other investigative bodies were alerted. But no trace was found.

The girl reporter, known as Gerry Towne, who had been with the prince when the minister had presented his apologies, was brought in. Her past record was strictly that of reporting. Her present activities were confined to Prince Kallin and getting background on Dorn. The minister read with approval the first draft of a feature story she was writing. Interesting, he thought, and with several items of good propaganda for the Federation.

Actually, she did not help much.

She gave a detailed report of the prince's activities, but they were too blamed normal, considering the man. Night clubs and sight-seeing. The story of a man intent on having a good time. And in a position to succeed.

The minister thought again of the four missing men.

The conferences proceeded no better. The prince would sit and doodle away on a piece of paper. He left the talking to the Federation men. When they made a proposal, he would answer with a simple yes or no. And never could they get from him any hint of a reason why.

"The answer was no when you first asked it," he would reply to all their questions. "It is no now. And it will remain no. As to why, I just plain don't like it. Try something else."

Or, if he had agreed: "I agreed, didn't I? What more do you want? You gave a bunch of reasons why I should. Use any of them you like. Let's have the next point."

And nowheres could they find any system. Some of the ones refused most obstinately were their most simple and innocent filler clauses. Some that he accepted without hesitation were their trickiest sand-bagging ones.

Gradually the document grew. But as it grew the Federation men gradually came to realize that they did not have the faintest idea of whether it would serve their purposes or not. For the Calculator would give them no answers at all.

Gorrell became more and more worried. The loss of the Machine—for it was thoroughly unreliable by now—was slowly breaking down the whole administration of government. And the idea was spreading that he was responsible. The dictator, himself, had hinted darkly to him that things had better be fixed. And the Minister of Propaganda, directly in charge of the Machine and feeling the noose on his neck, was doing his best to tie it on Gorrell. Gorrell was a strong man. One does not become minister under a dictator if there is much weakness in one. But he realized he was breaking under the strain. The worst of it was that he could not conceive how it was being done to him. All he could think of was the four missing men.

The girl, Gerry, had been reporting to him regularly, if futilely. But he was surprised when she was announced one morning. It was not on schedule. He had her shown in.

"I hope you have something important," he glowered at her. "I am busy and I'm fed up with people wasting my time." She gulped but drew an envelope out of her pocket-book.

"He g-g-got very drunk l-last night," she stammered. "Very drunk. Was boasting how well he had you fixed." Gorrell sprang up with a curse. It seemed as if he would strike her. But, with a visible effort, he got control of himself.

"Sorry," he muttered as he slumped back into his chair. "Not

myself, these days. Go on. Don't be afraid."

"Well, he was raving quite a bit, as I was saying," she resumed. "Laughing and boasting. Finally, he started waving that around and said he would soon be able to sell you that. I asked what it was. He said it was the treaty you would soon be begging him for." Gorrell's fist banged the table but he did not say anything.

"Either that, he said," she went on after a moment, "or he would tear down the whole . . . and he got very obscene, here . . . dictatorship. Then he quieted down and locked up the envelope. He said only one thing more that might be important. He said, and I think I have this straight: 'How long do you think this dictatorship will last without the Machine?' And then he went to bed."

"How did you get it, if he locked it up?" the minister asked.

"He dropped the key into his pocket last night," the girl answered. "This morning he put on a different suit. I guess he was too drunk to notice."

"Or, he wanted you to bring it to me," Gorrell said softly. "Where is he now?"

"On a sight-seeing tour with one of your men, I think," she replied. "I wondered if it might not be deliberate. But he had drunk an awful lot. And it was a good show if it was an act. Anyway, I thought I ought to bring it."

"Yes. Of course. I'll get this

photostated right away so you can return it." With that he stalked out of the room.

He read the pages over the shoulder of the photographer. They seemed innocuous enough. But, since they had probably been written with a Calculator, there were probably several hidden jokers. To sign it would probably mean the end of the dictator's dream of absorbing the League. At least for a long time.

But, he thought, at this point that was not important. When a man has one foot already in the concentration camp, the dictator himself no longer counts. The blame would lie on the Machine. And it would be difficult to tie that on him once the fault was found.

Yes, he thought. The prince has made himself a deal.

Gorrell was not a man to waste time. He could, if occasion required, haggle for commas and bargain for spelling with complete indirectness. But he preferred the opposite course. When subtlety was not needed, he much preferred to waste no time. It was, therefore in that afternoon's session that he proposed Prince Kallin's version as his own.

When he had read it, with the comment that it was an integrated version which might be acceptable since the prince refused to present his arguments, Kallin looked at him obliquely with a half smile. His eyelid twitched with the merest suggestion of a wink.

The minister's subordinates looked startled. They had not heard of this version. They were not too surprised, however. On occasion, it had better served Gorrell's and the Federation's purposes to have them argue for objectives that were not the true ones. And a man can argue best for what he believes to be true. They were used to these surprises. They mentally shrugged and kept quiet.

The prince took the document and studied it. It was plain that he was interested in only a few paragraphs. Apparently he was satisfied by what he saw.

"Gentlemen," he announced after about five minutes, "this is interesting. I find myself torn between conflicting interests. Frankly, I am beginning to get bored, here. And I don't see any particular reason why I shouldn't sign this. And yet, I have been interested in your progress while the Machine is being repaired. However, as I imagine it will be fixed in a few days, and as things will be very dull then . . . yes, I'll sign it."

The formalities were quickly concluded.

It was the next day, as Kallin was having lunch privately with Gorrell that the other half of the bargain was completed.

"I am not going to tell you the facts," the prince told the minister, with a grin. "I want to be far away with the treaty when you learn them. But there is on this planet, a Dr. Albert Fenross, who is highly re-

spected in the field of the Symbolic Logic, or Mathematics of Social Science, on which the Machine is based. I understand he is in considerable disfavor for speaking his mind too freely. However, he is the best man you have. I believe, if you will lay all pertinent information before him, he will tell you what happened. You might suggest that this was a practical application of my recent work. He'll know what I mean."

"Will he need *all* the facts?" Gorrell asked.

"Yes," was the answer, "except possibly the source of the treaty draft. I imagine he will guess that, anyway."

"But at least tell me how any of the four men with you got in to the Calculator. That place is one of the best guarded in the Federation."

"Why, they didn't," Kallin replied. "They just holed up. All they did was give you something to chase while I did the dirty work." And again he grinned in a cold sort of way.

The minister was an efficient man. The prince had merely got spaceborne when a truck arrived at Dr. Fenross' house filled with the records. A curt note ordered all possible speed. Guards surrounded his house while he worked.

It was less than twenty-four hours later that he announced he would like to see the minister. There was no delay. As he was ushered into Gorrell's office, the lat-

ter, with a cold look, waved him to a chair.

"You have solved the problem?"

"Yes." The mathematician was equally cold.

"That was quick work. I compliment you."

"I knew what had happened as soon as I had read the summary you prepared. I have spent the rest of the time preparing these notes by which your technicians can repair the damage, more or less." He tossed a handwritten sheath of papers on the desk.

Gorrell looked surprised.

"Can you explain it to me? Naturally I am curious."

"I believe so, if you can spare a little time." Gorrell nodded. As an afterthought, he offered his guest a cigar. The scientist thoughtfully lit it and nodded approval before continuing.

"I suspected what had happened as soon as I saw the name of Kerlon Peynor, under which his highness' ship was registered. I was not aware that he and the prince were the same one. A remarkable man—for Peynor is probably the single outstanding mathematician in the Social Science field in space today. The recent series of papers to which he referred were on theoretical limitations of the Machine. Do you begin to see the story?"

Gorrell shook his head and looked puzzled.

"What, exactly, did he do?"

"He arrived. And that, sir, is all he did."

"I don't get it."

"Consider. The Machine employs logical tools. In its operations, it is very much like a brain, except that the brain can ignore or, at least, repress what it has to. The Machine cannot.

"Peynor arrived. He carefully used that name to make sure the Machine did not miss the point that he was the outstanding expert on the limitations of the Machine. Just to reinforce it a bit, though it was probably not necessary, he told you that he chose his manner of coming to paralyze the Machine—which nugget of information you blithely cranked into it, thereby completing the process. After that he did precisely nothing. When he was accepting or rejecting clauses, I imagine he flipped a coin to decide. Or had some other system to avoid system. There was nothing coherent the Machine could grasp. So the Machine went crazy."

He leaned back and puffed his cigar. After a moment, as the minister still looked puzzled, he went on.

"The Machine knew that Peynor wanted to destroy it. And it knew that he could do this if anyone could. Further, by his exhibition of confidence, it became highly probable that he had a plan he knew would work.

"Now the Machine is quite capable of dealing with a plan to destroy or circumvent it. In fact, it is used to it. Under the present administration, that's its main job. But it

can only handle such a problem if it has some idea of the plan.

"The machine knew, with high probability, that Peynor had a plan. But he carefully avoided giving it any rational starting point. Therefore, to handle the problem, it had to consider the sum total of everything it could not do. It had to integrate over the range of its own limitations. And that is precisely what it could not do."

The mathematician puffed on his cigar a moment with bland approval.

"The basic difficulty, you see," he continued, "is that the Machine, like the brain, cannot know the extent of its own limitations. If a human, for instance, could know them, he could devise a machine to handle the problem—which would be equivalent to handling it himself. At best, the brain can only know what it can do—not what it cannot do. And the most subtle and effective attack that can be launched against it depends on that fact.

"What Peynor, the mathematician, has done is to prove that, logically and in a more general form. The brain has a defense against that attack. It ignores it. If, however, we built an ignoring circuit into the machine, it would still be susceptible to a higher order form of attack since it must then decide if the problem must be ignored or not. And it always will be susceptible as long as it was devised by the human brain.

"To summarize then, what Pey-

nor, or Kallin, did, was to set before the Machine the one intolerable problem. He asked it to determine where it was vulnerable. And as long as he committed himself to no particular line of action, the problem remained. And the Machine could answer no questions about him. In fact, as the facts of the problem got introduced into others, it could no longer give consistent answers to them, either.

"It is fundamentally the situation a man is in if he knows that you have the knowledge, opportunity, and motive to destroy him—and then you do nothing. Maybe he can ignore the problem. The Machine could not, so we will assume our man can't either. So he sits on the edge of his chair waiting for your hostile move, so that he can counter it. Only as you don't make any move, he simply continues to sit there with all his nerves tensed up, waiting. Until his mind snaps."

The minister nodded. "Yes, I think I see that. But have you figured out the basis of the ignoring circuit?"

"Yes. That is what those notes are about. But let me warn you, the next higher order of the same problem will paralyze the Machine again."

"Could Kallin present it, do you suppose?"

"I imagine so. The broad outlines of the method would be obvious to any theoretician. Tell me—are there any theoreticians among any revolutionary groups?" Gorrell jumped.

"What do you mean?" he shouted.

"I mean it would be embarrassing to have the Machine go crazy during a crisis. I wonder if the dictatorship hadn't better try to exist through the will of the people, rather than merely their acquiescence. I am only suggesting it." He smiled wryly.

Gorrell sank into thought. Finally he shrugged his shoulders.

"Maybe so."

A final thought hit him.

"Say, if the basis of the attack was inaction, wasn't the treaty a positive action?"

"Certainly," the scientist replied. "But then it was too late, wasn't it? If by any conceivable chance you knew he wanted that particular treaty, you could have broken the paralysis of the Machine with that information."

Dr. Fenross smiled mockingly at Gorrell's stunned expression. Quietly he got up and walked out.

THE END