**Armaments Race**

Arthur C. Clarke

As I've remarked on previous occasions, no-one has ever succeeded in pinning-down Harry Purvis, prize raconteur of the “White Hart”, for any length of time. Of his scientific knowledge there can be no doubt-but where did he pick it up? And what justification is there for the terms of familiarity with which he speaks of so many Fellows of the Royal Society? There are, it must be admitted, many who do not believe a single word he says. That, I feel, is going a little too far, as I recently remarked somewhat forcibly to Bill Temple.

“You're always gunning for Harry,” I said, “but you must admit that he provides entertainment. And that's more than most of us can say.”

“If you're being personal,” retorted Bill, still rankling over the fact that some perfectly serious stories had just been returned by an American editor on the grounds that they hadn't made him laugh, “step outside and say that again.” He glanced through the window, noticed that it was still snowing hard, and hastily added, “Not today, then, but maybe sometime in the summer, if we're both here on the. Wednesday that catches it. Have another of your favorite shots of straight pineapple juice?”

“Thanks,” I said. “One day I'll ask for a gin with it, just to shake you. I think I must be the only guy in the White Hart who can take it or leave it-and leaves it.”

This was as far as the conversation got, because the subject of the discussion then arrived. Normally, this would merely have added fuel to the controversy, but as Harry had a. stranger with him we decided to be polite little boys.

“Hello, folks,” said Harry. “Meet my friend Solly Blumberg. Best special effects man in Hollywood.”

“Let's be accurate, Harry,” said Mr. Blumberg sadly, in a voice that should have belonged to a whipped spaniel. “Not in Hollywood. out of Hollywood.”

Harry waved the correction aside.

“All the better for you. Sol's come over here to apply his talents to the British film industry.”

“There is a British film. industry?” said Solly anxiously. “No one seemed very sure round the studio.”

“Sure there is. It's in a very flourishing condition, too. The Government piles on an entertainments tax that drives it to bankruptcy, then keeps it alive with whacking big grants. That's the way we do things in this country. Hey, Drew, where's the Visitor's Book? And a double for both of us. Solly's had a terrible time-he needs a bit of building up.”

I cannot say that, apart from his hang-dog look, Mr. Blumberg had the appearance of a man who had suffered extreme hardships. He was neatly dressed in a Hart, Schaffner and Marx suit, and the points of his shirt collar buttoned down somewhere around the middle of his chest. That was thoughtful of them as they thus concealed something, but not enough, of his tie. I wondered what the trouble was. Not un-American activities again, I prayed: that would trigger off our pet communist, who at the moment was peaceably studying a chess-board in the corner.

We all made sympathetic noises and John said rather pointedly: “Maybe it'll help to get it off your chest. It will be such a change to hear someone else talking around here.”

“Don't be so modest, John,” cut in Harry promptly. “I'm not tired of hearing you yet. But I doubt if Solly feels much like going through it again. Do you, old man?”

“No,” said Mr. Blumberg. “You tell them.”

(“I knew it would come to that,” sighed John in my ear.)

“Where shall I begin?” asked Harry. “The time Lillian Ross came to interview you?”

“Anywhere but there,” shuddered Solly. “It really started when we were making the first ‘Captain Zoom” serial.”

“Captain Zoom’?” said someone ominously. “Those are two very rude words in this place. Don't say you were responsible for that unspeakable rubbish!”

“Now boys!” put in Harry in his best oil-on-troubled-waters voice. “Don't be too harsh. We can't apply our own high standards of criticism to everything. And people have got to earn a living. Besides, millions of kids like Captain Zoom. Surely you wouldn't want to break their little hearts-and so near Xmas, too!”

“If they really liked Captain Zoom, I'd rather break their little necks.”

“Such unseasonable sentiments! I really must apologize for some of my compatriots, Solly. Let's see, what was the name of the first serial?”

“Captain Zoom and the Menace from Mars’.”

“Ali yes, that's right. Incidentally, I wonder why we always are menaced by Mars? I suppose that man Wells started it. One day we may have a big interplanetary libel action on our hands-unless we can prove that the Martians have been equally rude about us.

“I'm very glad to say that I never saw 'Menace From Mars” (“I did;” moaned somebody in the background. “I'm still trying to forget it.”)-but we are not concerned with the story, such as it was. That was written by three men in a bar on Wilshire Boulevard. No-one is sure whether the Menace came out the way it did because the script writers were drunk, or whether they had to keep drunk in order to face the Menace. If that's confusing, don't bother. All that Solly was concerned with were the special effects that the director demanded.

“First of all, he had to build Mars. To do this he spent half an hour with 'The Conquest of Space', and then emerged with a sketch which the carpenters turned into an over-ripe orange floating in nothingness, with an improbable number of stars around it. That was easy. The Martian cities weren't so simple. You try and think of completely alien architecture that still makes sense. I doubt if it's possible-if it will work at all, someone's already used it here on Earth. What the studio finally built was vaguely Byzantine with touches of Frank Lloyd Wright. The fact that none of the doors led anywhere didn't really matter, as long as there was enough room on the sets for the swordplay and general acrobatics that the script demanded.

“Yes-swordplay. Here was a civilization which had atomic power, death-rays, spaceships, television and suchlike modem conveniences, but when it came to a fight between Captain Zoom and the evil Emperor Klugg, the clock went back a couple of centuries. A lot of soldiers stood round holding deadly-looking ray-guns, but they never did anything with them. Well, hardly ever. Sometimes a shower of sparks would chase Captain Zoom and singe his pants, but that was all. I suppose that as the rays couldn't very well move faster than light, he could always outrun them.

“Still, those ornamental ray-guns gave everyone quite a few headaches. It's funny how Hollywood will spend endless trouble on some minute detail in a film which is complete rubbish. The director of Captain Zoom had a thing about ray-guns. Solly designed the Mark 1, that looked like a cross between a bazooka and a blunderbuss. He was quite satisfied with it, and so was the director-for about a day. And then the great man came raging into the studio carrying a revolting creation of purple plastic with knobs and lenses and levers.

“Lookit this, Solly!” he puffed. “Junior got it down at the Supermarket-they're being given away with packets of Crunch. Collect ten lids, and you get one. Hell, they're better than ours! And they work!”

“He pressed a lever, and a thin stream of water shot across the set and disappeared behind Captain Zoom's spaceship, where it promptly extinguished a cigarette that had no right to be burning there. An angry stage-hand emerged through the airlock, saw who it was had drenched him, and swiftly retreated, muttering things about his Union.

“Solly examined the ray-gun with annoyance and yet with an expert's discrimination. Yes, it was certainly much more impressive than anything he'd put out. He retired into his office and promised to see what he could do about it.

“The Mark 11 had everything built into it, including a television screen. If Captain Zoom was suddenly confronted by a charging hickoderm, all he had to do was to switch on the set, wait for the tubes to warm up, check the channel selector, adjust the fine tuning, touch up the focus, twiddle with the Line and Frame holds-and then press the trigger. He was, fortunately, a man of unbelievably swift reactions.

“The director was impressed, and the Mark 11 went into

production. A slightly different model, the Mark Ila, was built for the Emperor Klugg's diabolical cohorts. It would never do, of course, if both sides had the same weapon. I told you that Pandemic Productions were sticklers for accuracy.

“All went well until the first rushes, and even beyond. While the cast was acting, if you can use that word, they had to point the guns and press the triggers as if something was really happening. The sparks and flashes, however, were put on the negative later by two little men in a darkroom about as well guarded as Fort Knox. They did a good job, but after a while the producer again felt twinges in his overdeveloped artistic conscience.

“Solly,” he said,, toying with the plastic horror which had reached Junior by courtesy of Crunch, the Succulent Cereal-Not a Burp in a Barrel—“Solly, I still want a gun that does something.”

“Solly ducked in time, so the jet went over his head and baptized a photograph of Louella Parsons.

“You're not going to start shooting all over again!” he wailed.

“Nooo,” replied the producer, with obvious reluctance. 'We'll have to use what we've got. But it looks faked, somehow. “He ruffled through the script on his desk, then brightened up.

“Now next week we start on Episode 54-“Slaves of the SlugMen.” Well, the Slug-:Men gotta have guns, so what I'd like you to do is this—”

“The Mark III gave Solly a lot of trouble. (I haven't missed out one yet, have I? Good.) Not only had it to be a completely new design, but as you'll have gathered it had to ‘do something’. This was a challenge to Solly's ingenuity: however, if I may borrow from Professor Toynbee, it was a challenge that evoked the appropriate response.

“Some high-powered engineering went into the Mark III. Luckily, Solly knew an ingenious technician who'd helped him out on similar occasions before, and he was really the man behind it. (“I'll say he was!” said Mr. Blumberg gloomily.) The principle was to use a jet of air, produced by a small but extremely powerful electric fan, and then to spray finely divided powder into it. When the thing was adjusted correctly, it shot out a most impressive beam, and made a still more impressive noise. The actors were so scared of it that their performances became most realistic.

“The producer was delighted-for a full three days. Then a dreadful doubt assailed him.

“Solly,” he said, “those damn guns are too good. The Slug-Men can beat the pants off Captain Zoom. Well have to give him something better!

“It was at this point that Solly realized what had happened. He had become involved in an armaments race.

“Let's see, this brings us to the Mark IV, doesn't it? How did that work?—oh yes, I remember. It was a glorified oxy-acetylene burner, with various chemicals injected into it to produce the most beautiful flames. I should have mentioned that from Episode 50' Doom on Deimos'-the studio had switched over from black and white to Murkicolor, and great possibilities were thus opened up. By squirting copper or strontium or barium into the jet, you could get any colour you wanted.

“If you think that by this time the producer was satisfied, you don't know Hollywood. Some cynics may still laugh when the motto 'Ars Gratia Artis” flashes on the screen, but this attitude, I submit, is not in accordance with the facts. Would such old fossils as Michelangelo, Rembrandt or Titian have spent so much time, effort and money on the quest for perfection as did Pandemic Productions? I think not.

“I don't pretend to remember all the Marks that Solly and his ingenious engineer friend produced during the course of the serial. There was one that shot out a stream of coloured smoke-rings. There was the high-frequency generator that produced enormous but quite harmless sparks. There was a particularly ingenious curved beam produced by a jet of water with light reflected along inside it, which looked most spectacular in the dark. And finally, there was the Mark 12.”

“Mark 13,” said Mr. Blumberg.

“Of course-how stupid of me! What other number could it have been! The Mark 13 was not actually a portable weapon though some of the others were portable only by a considerable stretch of the imagination. It was the diabolical device to be installed on Phobos in order to subjugate Earth. Though Solly has explained them to me once, the scientific principles involved escape my simple mind… However, who am I to match my brains against the intellects responsible for Captain Zoom? I can only report what the ray was supposed to do, not how it did it. It was to start a chain reaction in the atmosphere of our unfortunate planet, making the nitrogen and the oxygen in the air combine with highly deleterious effects to terrestrial life—”

“I'm not sure whether to be sorry or glad that Solly left all the details of the fabulous Mark 13 to his talented assistant. Though I've questioned him at some length, all he can tell me is that the thing was about six feet high and looked like a cross between the 200 inch telescope and an anti-aircraft gun. That's not very helpful, is it?

“He also says that there were a lot of radio tubes in the brute, as we'll as a thundering great magnet. And it was definitely supposed to produce a harmless but impressive electric arc, which could be distorted into all sorts of interesting shapes by the magnet. That was what the inventor said, and, despite everything, there is still no reason to disbelieve him.

“By one of those mischances that later turns out to be providential, Solly wasn't at the studio when they tried out the Mark 13. To his great annoyance, he had to be down in Mexico that day. And wasn't that lucky for you, Solly! He was expecting a long-distance call from one of his friends in the afternoon, but when it came through it wasn't the kind of message he'd anticipated.

“The Mark 13 had been, to put it mildly, a success. No-one knew exactly what had happened, but by a miracle no lives had been lost and the fire department had been able to save the adjoining studios. It was incredible, yet the facts were beyond dispute. The Mark 13 was supposed to be a phony death-ray-and it had turned out to be a real one. Something had emerged from the projector, and gone through the studio wall as if it wasn't there. Indeed, a moment later it wasn't. There was just a great big hole, beginning to smolder round the edges. And then the roof fell in...

“Unless Solly could convince the F. B. I. that it was all a mistake, he'd better stay the other side of the border. Even now the Pentagon and the Atomic Energy Commission were converging upon the wreckage...

“What would you have done in Solly's shoes? He was innocent, but how could he prove it? Perhaps he would have gone back to face the music if he hadn't remembered that he'd once hired a man who'd campaigned for Henry Wallace, back in '48. That might take some explaining away: besides, Solly was a little tired of Captain Zoom. So here he is. Anyone know of a British film company that might have an opening for him? But historical films only, please. He won't touch anything more up-to-date than cross-bows.”