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FOREWORD.
There is no doubt that quite a few readers, after seeing some of the amateur science-fiction stories included in some American fan magazines, were pleasantly surprised by the high standard of the story in the first issue of this magazine. ("Mr. Craddock's Life-Line" by Temple Williams.)
So pleased were readers by the quality, that complaints were received that the issue did not contain enough material. This, we trust, has been remedied by the present issue, which contains nearly twice as much.
We should like to remind readers that the first three issues of this magazine are experimental ones, and it depends on the general reaction to those whether or not the magazine is continued. All readers, therefore, are invited to send detailed comments on the stories.
The most essential thing, however, is that we should be well supplied with material from which to select stories. The initial response was quite satisfactory, when manuscripts which had been hoarded for years were brought to light. But now, rejections, etc, have reduced our stock, and we appeal to all amateur authors to support this, their own magazine.

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"TRAVEL BY WIRE:"

by

Arthur C. Clarke.

You people can have no idea of the troubles and trials we had to endure before we perfected the radio-transponder, not that it's quite perfect even yet. The greatest difficulty, as it had been in television thirty years before, was improving definition, and we spent nearly five years over that little problem. As you will have seen in the Science Museum, the first object we transmitted was a wooden cube, which was assembled all right, only instead of being one solid block it consisted of millions of little spheres. In fact, it looked just like a solid edition of one of the early television pictures, for instead of dealing with the object molecule by molecule or better still electron by electron, our scanners took little chunks at a time.

This didn't matter for some things, but if we wanted to transmit objects of art, let alone human beings, we would have to improve the process considerably. This we managed to do by using the delta-ray scanners all round our subject, above, below, right, left, in front and behind. It was a lovely game synchronising all six, I can tell you, but when it was done we found that the transmitted elements were ultra-microscopic in size, which was quite good enough for most purposes.

Then, when they weren't looking, we borrowed a guinea pig from the biology people on the 37th floor, and sent it through the apparatus. It came through in excellent condition, except for the fact it was dead. So we had to return it to its owner with a polite request for a post-mortem. They raved a bit at first, saying that the unfortunate creature had been inoculated with the only specimens of some germs they'd spent months rearing from the bottle. They were so annoyed, in fact, that they flatly refused our request.

Such insubordination on the part of mere biologists was of course deplorable, and we promptly generated a high-frequency field in their laboratory and gave them all fever for a few minutes. The post-mortem results came up in half an hour, the verdict being that the creature was in perfect condition but had died of shock, with a rigor to the effect that if we wanted to try the experiment again we should blindfold our victims. We were also told that a combination lock had been fitted to the 37th floor to protect it from the depredations of kleptomaniacal mechanics who should be washing cars in a garage. We could not let this pass, so we immediately X-rayed their lock and to their complete consternation told them what the key-word was.

That is the best of being in our line, you can always do what you like with the other people. The chemists on the next floor were our only serious rivals, but we generally came out on top. Yes, I remember that time they slipped some vile organic stuff into our lab. through a hole in the ceiling. We had to work in respirators for a month, but we had our revenge later. Every night after the staff had left, we used to send a dose of mild cosmetics into the lab, and curdled all their beautiful precipitates, until one evening old Professor Hudson stayed behind and we nearly finished him off. But to get back to my story--

We obtained another guinea pig, chloroformed it, and sent it through the transmitter. To our delight, it revived. We immediately had it killed and stuffed for the benefit of posterity. You can see it in the museum with the rest of our apparatus.

But if we wanted to start a passenger service, this would never do - it would be too much like an operation to suit most people. However by cutting down the transmitting time to a ten-thousandth of a second, and thus reducing the shock, we managed to send another guinea pig in full possession of its faculties. This one was also stuffed.

The time had obviously come for one of us to try out the apparatus

but as we realised what a loss it would be to humanity should anything go wrong, we found a suitable victim in the person of Professor Kingston, who teaches Greek or something foolish on the 197th floor. We lured him to the transmitter with a copy of Homer, switched on the field, and by the row from the receiver, we knew he'd arrived safely and in full possession of his faculties, such as they were. We would have liked to have had him stuffed as well, but it couldn't be arranged.

After that we went through in turns, found the experience quite painless, and decided to put the device on the market. I expect you can remember the excitement there was when we first demonstrated our little toy to the Press. Of course we had the dickens of a job convincing them that it wasn't a fake, and they didn't really believe it until they had been through the transporter themselves. We drew the line, though, at Lord Rosecastle, who would have blown the fuses even if we could have got him into the transmitter.

This demonstration gave us so much publicity that we had no trouble at all in forming a company. We had a reluctant farewell to the Research Foundation, told the remaining scientists that perhaps one day we'd heap coals of fire on their heads by sending them a few millions, and started to design our first commercial senders and receivers.

The first service was inaugurated on May 10th, 1962. The ceremony took place in London, at the transmitting end, though at the Paris receiver there were enormous crowds watching to see the first passengers arrive, and probably hoping they wouldn't. Amid cheers from the assembled thousands, the Prime Minister pressed a button (which wasn't connected to anything), the chief engineer thro a switch (which was) and a large Union Jack faded from view and appeared again in Paris, rather to the annoyance of some patriotic Frenchmen.

After that, passengers began to stream through at a rate which left the Customs officials helpless. The service was a great and instantaneous success, as we only charged £2 per person. This we considered very moderate, for the electricity used cost quite one hundredth of a penny.

Before long we had services to all the big cities of Europe, by cable that is, not radio. A wired system was safer, though it was dreadfully difficult to lay polyaxial cables, costing £500 a mile, under the Channel. Then, in conjunction with the Post Office, we began to develop internal services between the large towns. You may remember our slogans "Travel by Phone" and "It's quicker by Wire" which were heard everywhere in 1963. Soon, practically everyone used our circuits, and we were handling thousands of tons of freight per day.

Naturally, there were accidents, but we could point out that we had done what no Minister of Transport had ever done, reduced road fatalities to a mere ten thousand a year. We lost one client in six million, which was pretty good even to start with, though our record is even better now. Some of the mishaps that occurred were very peculiar indeed, and in fact there are quite a few cases which we haven't explained to the dependants yet, or to the insurance companies either.

One common complaint was earthing along the line. When that happened, our unfortunate passenger was just dissipated into nothingness. I suppose his or her molecules would be distributed more or less evenly over the entire earth. I remember one particularly gruesome accident when the apparatus failed in the middle of a transmission. You can guess the result... Perhaps even worse was what happened when two lines got crossed and the currents were mixed.

Of course, not all accidents were as bad as those. Sometimes, owing to a high resistance in the circuit, a passenger would lose anything up to five stone in transit, which generally cost us about £1000 and enough free meals to rector the missing nonpoint. Fortunately, we were soon able to make money out of this affair, for fat people came along to be reduced to manageable dimensions. We made a special apparatus which transmitted massive dowagers round resistance coils and re-assembled them where they started, minus the cause of the trouble. "So quick, my dear, and quite painless! I'm sure they could take off

that 150 pounds you want to lose in no time! Or is it 200?"

We also had a good deal of trouble through interference and induction. You see, our apparatus picked up various electrical disturbances and superimposed them on the object under transmission. As a result many people came out looking like nothing on earth and very little on Mars or Venus. They could usually be straightened out by the plastic surgeons, but some of the products had to be seen to be believed.

Fortunately these difficulties have been largely overcome now that we use the micro-beams for our carrier, though now and then accidents still occur. I expect you remember that big lawsuit we had last year with Lita Cordova, the television star, who claimed \$1,000,000 damages from us for alleged loss of beauty. She asserted that one of her eyes had moved during a transmission, but I couldn't see any difference myself and nor could the jury, who had enough opportunity. She had hysterics in the court when our Chief Electrician went into the box and said bluntly, to the alarm of both sides' lawyers, that if anything really had gone wrong with the transmission, Miss Cordova wouldn't have been able to recognise herself had any cruel person handed her a mirror.

Lots of people ask us when we'll have a service to Venus or Mars. Doubtless that will come in time, but of course the difficulties are pretty considerable. There is so much sun static in space, not to mention the various reflecting layers everywhere. Even the micro-waves are stopped by the Appleton "Q" layer at 100,000 Km, you know. Until we can pierce that, Interplanetary shares are still safe.

Well, I see it's nearly 22, so I'd best be leaving. I have to be in New York by midnight. What's that? Oh, no, I'm going by 'plane. I don't "travel by wire"! You see, I helped invent the thing!

Rockets for no! Good-night!
