## Chapter 1 The Time Traveller

The Time Traveller (it will be convenient to call him this) was talking to us about geometry. His grey eyes shone and his usually pale face was red and excited. The fire burned brightly and there was that relaxed after-dinner feeling when thoughts run freely.

'You must listen carefully. I shall have to destroy one or two ideas that almost everyone accepts – for example, the geometry that they taught you at school. You know, of course, that a mathematical line, a line with no thickness, doesn't really exist. They taught you that? A mathematical model which only has length, width and thickness, doesn't really exist either. It's just an idea.'

'That's all right,' said the Psychologist,

'But if you make that model out of a material,' said Filby, a red-haired man who liked an argument, 'it exists. All real things exist.'

'Most people think so But wait a moment. Imagine a thing that doesn't last for any thue. Can it have a real existence?' Filby looked thoughtful, 'Clearly,' the Time Traveller said, 'a real body must have length, width, thickness (the dimensions of space) — and also exist in time. But through a natural human weakness, we usually forget the fourth of these.'

'That,' said a very young man, 'is very clear.'

'Well, I don't mind telling you that I have been at work on this geometry of four dimensions for some time. Some of my results are interesting. Here is a record of the weather. This line shows the changes in temperature. Yesterday it was quite high, last night it fell, then this morning it rose again. Surely that line is not in any of the dimensions of space that we generally understand? It is along the time-dimension.'

'But,' said the Medical Man, looking hard at the fire, 'if time is

really only a fourth dimension of space, why can't we move about in it as we move in the other dimensions?'

The Time Traveller smiled. 'Are you so sure we can move freely in space? We can go right and left, backwards and forwards freely enough. But up and down? That isn't so easy.'

'Well, we can move a little up and down,' said the Medical Man. 'But we can't move at all in time. We are always in the present moment.'

'That is at the centre of my great discovery. Why can a modern man not hope that one day he might travel in time?'

'It doesn't make sense,' said Filby.

'Possibly not,' said the Time Traveller. 'But now you begin to see the reason for my work on the geometry of four dimensions. Long ago I had an idea for a machine that can travel in any direction of space and time, as the driver wants.'

Filby started to laugh.

'But I have proved this by experiment,' said the Time Traveller.

'It would be very useful for the historian,' the Psychologist suggested. 'He could travel back and see how things really happened!'

'Then there is the future,' said the Very Young Man. 'Just think! You could put all your money in the bank, leave it to grow and hurry on ahead!'

'To discover a society,' I said, 'that doesn't use money.'

'Of all the crazy ideas!' began the Psychologist.

'It seemed so to me, and I never talked about it until -'

'An experiment!' I cried. 'You are going to prove that?'

'Let's see what you can do,' said the Psychologist, 'though I think it's all rubbish.'

The Time Traveller smiled at us. Then, with his hands deep inside his trouser pockets, he walked slowly out of the room and we heard him going down to the laboratory.

The Psychologist looked at us. 'I wonder what he's got?'

'A trick probably,' said the Medical Man, and Filby tried to tell us about a trick he had seen once, but before he had really started his story the Time Traveller came back.

He held something in his hand. It was made of shiny metal and was not much larger than a small clock. And now I must be exact, because unless you believe his explanation it is impossible to explain what happened next.

He took one of the small tables in the room and put it in front of the fire. On this he placed the machine. Then he placed a chair next to it and sat down. The only other object on the table was a small lamp, the light of which fell on the model.

I sat in a low chair nearest the fire and I pulled this forwards so I was almost between the Time Traveller and the fire. Filby sat behind him, looking over his shoulder The Medical Man watched him from the right; the Psychologist from the left. The Very Young Man stood behind the Psychologist. We were all wide awake. I cannot believe that a trick was played on us under these conditions.

'This little thing,' said the Time Traveller, resting his elbows on the table and pressing his hands together above the machine, 'is only a model. It is my plan for a machine to travel through time. You will notice that it looks a little rough, and this bar has an odd shining appearance — it looks quite unreal.' He pointed to this part with his finger. 'Also, here is one little white lever, and here is another.'

The Medical Man got out of his chair and looked closely into the thing. 'It's beautifully made,' he said.

'It took two years to make,' said the Time Traveller. Then, when we had all had a close look, he said, 'Now I want you to understand clearly that this lever sends the machine flying into the future, and this other one sends it into the past.

'Soon, I'm going to press the lever and the machine will disappear into future time. Have a good look at the thing. Look

at the table too, and satisfy yourself that there can be no tricks. I don't want to waste this model and then be told I'm dishonest.'

There was a minute's pause perhaps. The Psychologist opened his mouth to speak to me but closed it again. Then the Time Traveller put out his finger towards the lever.

'No,' he said suddenly, pulling his finger away again. 'Lend me your hand.' And turning to the Psychologist, he took that person's hand in his own and told him to put out his first finger and touch the lever.

So the Psychologist himself sent the model time machine on its endless journey. We all saw the lever turn. I am completely certain there was no trick. There was a breath of wind and the lamp flame jumped. The machine suddenly turned round, looked unclear, was seen like a ghost for a second and was gone – disappeared! Except for the lamp, the table was empty.

Everyone was silent for a minute. Then the Psychologist recovered from his surprise and looked under the table.

The Time Traveller laughed cheerfully. 'Well?' he said.

We all stared.

'My friend,' said the Medical Man quietly, 'are you serious about this? Do you really believe that machine has travelled in time?'

'Certainly,' said the Time Traveller. 'And I have a big machine nearly finished in there' – he pointed to the laboratory – 'and when that is put together I intend to go on a journey myself.'

'You mean to say that that machine has travelled into the future?' said Filby.

'Into the future or the past – I'm not completely sure which.'

After some time the Psychologist said, 'It has gone into the past if it has gone anywhere.'

'Why?' said the Time Traveller.

'Because I'm quite sure that it hasn't moved in space, and if it travelled into the future it would still be here all this time. It would have to travel through the time that is passing as we stand here.'

'But,' I said, 'if it travelled into the past, why wasn't it here when we first came into this room, and last Thursday when we were here – and the Thursday before that?'

'Let's be fair – these are serious questions,' said Filby, turning towards the Time Traveller.

'That can be explained,' the Time Traveller said to the Psychologist. 'It's there but can't be seen.'

'Of course,' said the Psychologist. 'That's simple enough. Why didn't I think of it? We can't see it, in the same way that we can't see a bullet flying through the air. If it is travelling through time fifty times or a hundred times faster than we are, we can see only one-fiftieth or one-hundredth of it.'

We sat and stared at the empty table for a minute or two. Then the Time Traveller asked us what we thought of it all.

'It sounds believable enough tonight,' said the Medical Man, 'but it will seem different in the morning.'

'Would you like to see the Time Machine itself?' asked the Time Traveller. And then, taking the lamp in his hand, he led the way to the laboratory.

I remember clearly how we all followed him, and how in the laboratory we saw a larger copy of the little machine. It was almost complete, but two bars lay unfinished on the table and I picked one up for a better look.

'Now listen,' said the Medical Man, 'are you really serious?'

'In that machine,' said the Time Traveller, holding the lamp high, 'I intend to travel in time. Is that clear? I was never more serious in my life.'

None of us knew what to say. I looked at Filby over the shoulder of the Medical Man and he smiled at me.