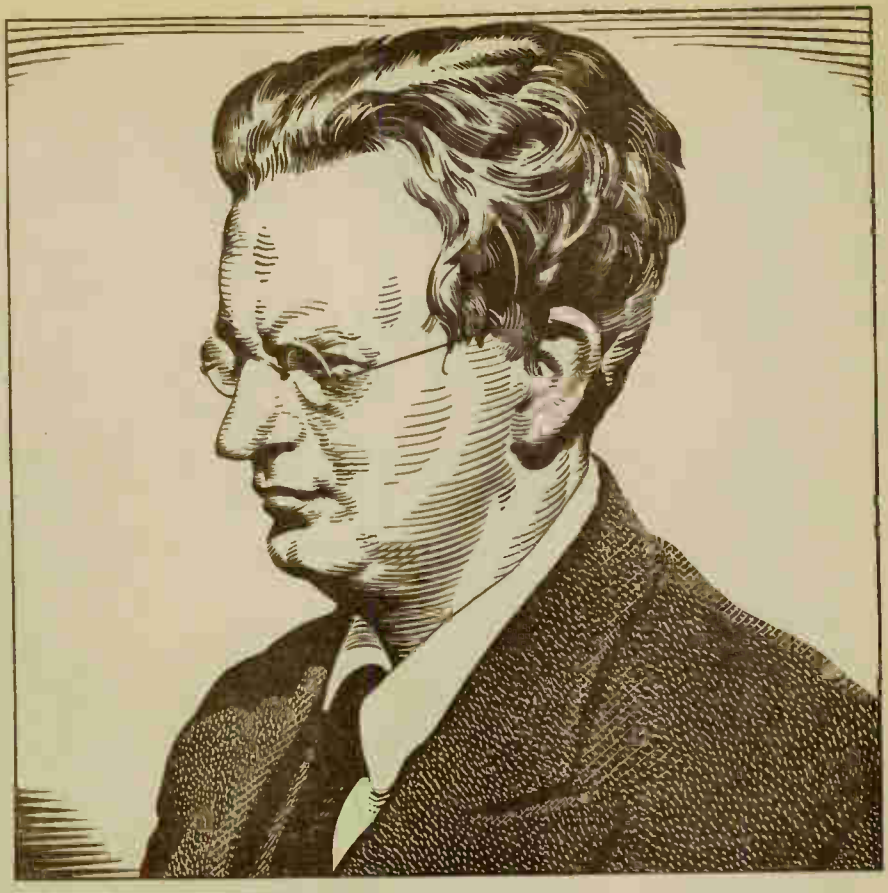
JOHN BAIRD

The Romance and Tragedy of the Pioneer of Television

SYDNEY MOSELEY



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THE ROMANCE AND TRAGEDY
OF THE PIONEER OF TELEVISION

LEGENDS have been growing around John Logie Baird, the pioneer of British television. What are the facts?

In this work, Sydney Moseley, who, according to Baird, "put television on the map," and was Deputy Chairman of the Baird Company brings to light some of the hitherto unrevealed secrets of the romance and tragedy of this remarkable man.

The public subscribed over a million pounds towards Baird's invention, but behind the scenes, much went on before the first official transmissions made news throughout the world.

Baird has been regarded by many as a forlorn inventor who died, broken-hearted, a comparatively poor man.

Baird certainly left but a few thousand pounds and another system was adopted by the B.B.C. Why? Was Baird badly treated? Did he really originate the television of today? What happened to the money subscribed by the people who had faith in his invention.

Sydney Moseley is able to reveal the inside story because it was he who conducted in secret the negotiations with the Gaumont-British group as well as with the B.B.C.

Baird died unacclaimed, but the public's conscience has now awakened. Baird is coming into his own and people are asking what really happened. This book gives the answer.

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JOHN BAIRD

THE ROMANCE AND TRAGEDY OF THE PIONEER OF TELEVISION

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John Logie Baird being televised in the first studio built especially for television at the Baird Company's laboratories in Long Acre, London.

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PROLOGUE

"IT IS ANNOUNCED that John Logie Baird . . ."

Curious how in a split second so many thoughts can go racing through one's mind! At the very instant that John's name was mentioned over the air I grew chill. Then the thoughts tumbled over each other: "This can mean only one thing. Never before has the B.B.C. done him the honour of recognizing his existence. But this is absurd; it can't be; only a short while ago he said he was feeling better. . . ." All this, and much more, rushed through my brain before the dispassionate voice of the announcer reached the end of the sentence—the death sentence. Yes; the B.B.C., which had failed to acknowledge John Baird's existence, had at least announced his passing. Wearily I switched off my radio; one of the principal reasons for my impending return to England no longer existed.

*

I was in Switzerland, with mountains all around me—a sunny, snowy, sparkling, optimistic post-war Switzerland, at a time when the international prospect failed to please rather less than it does now. Moving in the ponderous manner of a safety-curtain, the Iron Curtain had by no means reached stage-level; there was always the chance that someone would have the presence of mind to try to reverse the switch. The war had been won; the atom bomb was exclusively in the hands of the "right" people; inflation then was little more than a puff of wind.

A strenuous and exacting wartime career of American broadcasting left me tired and ill. But I was convalescing—after a well-nigh fatal bout in a Swedish hospital—and in the clean Swiss air and abundant sunshine was feeling satis-

fied and as much at peace as I shall ever be. Warmed by the sun, warmed by the knowledge that soon I would be in England again, cheered by the prospect of meeting old friends, I let my mind dwell on one of the most joyful prospects of all—reunion with John Baird. Good old John, only fifty-eight and still going strong. . . . The times we would have together . . . the reminiscences, the leg-pulling. . . . Already I could hear him saying to me: "Ach! Ye *dirrty* dog!"—his favourite phrase of friendship!

Full of these thoughts of home and the few special people I would hurry to meet, I had switched on my short-wave radio and turned the pointer to a B.B.C. wavelength. A typical London announcer's voice faded-in and grew in strength. He came to the end of a sentence and started a new one:

"It is announced that John Logie Baird . . ."

My mind went back a few months. I had promised Baird that if he were unable to come to me in the United States, as he had expressed a hope to do, I would return to London. Austerity notwithstanding, we would gather up the broken threads of the past and endeavour to recapture some of its spirit. In fact, I had made a flying trip to London in 1945, and in an all too short space of time we had made many plans.

"Ach! Ye dirrty dog!" Baird's affectionate words echoed in a ghostly background as the shock of the announcement of his death sent my thoughts of him farther back through the years. With these thoughts came doubt, in the shape of a fantastic fear—*was he really dead?* Years later, in calm retrospect, it seems incredible that such a bizarre thought should have been entertained for a moment by any sane person. But I can realize now that it was not only the shock of hearing of the death of this very dear friend, but the *manner* of hearing it—hundreds of miles from home, in an isolated chalet on top of a mountain—that made it possible for such an idea to establish itself. And with that idea came hope—that he might not be dead after all!

But I had a basis for this hope, which at the time was not so silly as it may sound now. In fact, so strong was my belief that Baird *might* still be alive, so uneasy did I feel that some terrible mistake might have been made, that although still an invalid I dragged myself from my bed and made my way from the lonely chalet through deep snow to a near-by hotel. Urgently I put a telephone call through to London.

By the time the call came through I knew it was hopeless.

*

To trace the source of that seemingly bizarre hope on my part that Baird might be alive after all, it is necessary to go back a few years. Before the Second World War, when he and I were working in the closest co-operation and with the greatest accord, when practically every moment of our time was devoted to the establishing of his right to prove that Baird Television was practicable, we went off together to the South of France. The reason for this journey was the damp fog of London, which Baird could scarcely tolerate and which, in fact, eventually helped to bring about his death. Even when wrapped in his heavy overcoat, muffled up to the chin and wearing his usual heavy socks, he always found it difficult to face up to the English winter, but the current battle for television made it very difficult for him to get away to his beloved sun.

One day we were on our way to Hyde Park where we sometimes strolled and interminably discussed the battle for television. As we made our way to a taxi rank in Lower Regent Street, an unpleasant pall of fog came up and quickly enshrouded the entire street. This was London at its dampest and its worst. John suddenly exclaimed: "Sydney—let's get away from here!"

"All right!" I replied. "Where shall we go—California or Cannes?"

Within five minutes we had found a travel agency; within ten we had booked our passage—by train and boat, for Baird did not care for flying—and in a matter of hours we were strolling along a sunny Mediterranean shore.

"This is the life," said Baird. "But what about them in London?"

"Forget it for a while," said I. But, in fact, Baird was always thinking of "them." This affectionate collective pronoun included not only his loyal and devoted group of assistants in the Long Acre laboratory, working on his latest problems and theories—which he had probably scrawled on a tablecloth or on the back of an envelope—but also our colleagues among the executives and directors of Baird Television. For he was not only a scientist; he had been brought up in a hard school and he knew something about business. From the very beginning his troubles had been twofold: there was the scientific race to be first in the development of practical television; but there was also the problem of keeping control over the business side. The laboratory certainly gave him fewer headaches than the board room, but one way and another he needed a holiday pretty badly by the time we escaped to Cannes. Not that his *mind* took a holiday—even when we walked along the promenade!

At Cannes I fortunately discovered that an old friend of mine was running one of the best hotels in the place—Joe Wild, brother of the famous Wild Bey who had managed the Grand Continental Hotel in Cairo when I was a young, struggling journalist editing the local English paper. I lived at the "Grand Continental" in those days; so when Baird and I reached the Gallia Palace in Cannes, Joe Wild was there with arms outstretched in welcome. Immediately he suggested a celebratory luncheon. Baird thoroughly enjoyed the fuss that was made of him.

That day events were shaping not only with regard to Baird Television, but to my private fortune. Things were humming in America. But Wild's special luncheon (it was twenty-five years since our friendship started in Cairo) drove all these problems from our minds. Our host's face beamed when he came over and whispered that he had sent a plane especially to Strasbourg to bring *pâté de foie gras*. "The real stuff!" he said, and Baird and I licked our lips

in anticipation. Although I am no gourmet I shall never forget the *filet de sole bonne femme*, with a sauce such as I have never tasted before or since. The chef was father of all the experts. He made a *soufflé en surprise*; he made . . . but I could dwell for pages on that memorable meal. Let it suffice that it was not long before I didn't care if it snowed on Wall Street. And as for John Baird—he even forgot about his beloved television for a while. Or at least he shelved it.

But it was not only the menu that made this meal memorable. It was what happened afterwards that, years later, sent me plunging through the snow in far-off Glion. . . .

But first I had better explain that at the time of the Cannes episode the establishing of television on a workmanlike and successful basis had become a full-time job for me. After entering this unknown field somewhat gingerly, I soon found that there existed a strong challenge from certain quarters which, for some inexplicable reason, wished to kill Baird's invention almost at birth. I had sworn to stand by Baird; I had cast my lot in with him; in fact, I had demonstrated my faith in him and his discoveries by staking not only money but my reputation. But I had become heavily involved on Wall Street and felt that I had better ease my mind by selling out. Accordingly, after the luncheon was over and while Baird was taking a siesta, I went to my room and wrote out the fateful cable to my brokers.

Since the cable was of such vital importance I decided not to entrust it to a page-boy but to hand it over personally at the Post Office when Baird and I took a stroll before dinner. Having decided this I went to his room.

To my surprise I found the door unlocked. This was unusual, because John was generally wary of my practical jokes. Wherever we were he was always on the alert at the very sound of my footsteps and generally turned the lock in self-defence. Cautiously—because the practical jokes were mutual—I opened the door and was amazed at what I saw.

He was on the bed, outstretched on his back, divested of his outer clothing and looking like a corpse—rigid, and with his eyes staring blankly at the ceiling.

Sharply I called: "John!" He did not respond, even when I called again. Normally he would have been on the qui vive by now, taking no chances either of having something thrown at him or of having his protruding stomach pounded. I went closer, realizing that no normal John Baird would deliberately have remained so defenceless. He made no move at all.

Something was radically wrong. I shook him; he made no response. Now I was beginning to fear the worst. The split-second thoughts—forerunners of those that assailed me in Switzerland years later—raced through my mind. What steps should I take? How should I convey the news? What would happen to television? A hundred other lightning reflections flickered.

I rushed from the room in search of aid. Failing to find anyone, I rushed back to make certain that my fears were justified. Baird was still in the same position, lying rigidly, with fixed eyes. Then I remembered the obvious thing—the telephone, of course! I picked up the receiver. . . .

"Oi! Ye're *daft*!" came in a broad Scots accent from the bed, shaking me to the very core. I dropped the instrument and turned, to see John sitting up, as lively as a cricket!

Later he confessed to me that he had been experimenting in Yoga. "I have often succeeded," he said, "in leaving my body and standing by and watching it. Today I succeeded in doing it far more effectively than ever before. Then you came in and spoilt it. In fact, you nearly chased my spirit away!"

"In point of fact, then," I said, "I was looking at your dead body?"

"The empty shell," he replied, simply. "The empty shell. . . ."

Just how long that inanimate body, that empty shell, would have remained so, had I not discovered it, is something we shall never know. But small wonder that my mind

flew back to this strange episode, years later, when Baird's death was announced so suddenly. Could I be blamed for wondering whether even those who were dearest to him, if unaware of his secret Yoga experiments, may have mistaken him for dead when in fact it may have been just another experiment?

Just by way of a postscript, I might mention that Baird's deathlike trance on that fateful day in Cannes upset my equilibrium so much that I forgot to send the cable to the New York brokers. I lost my fortune. But I hadn't lost Baird—which was much more important to the world.

*

This then is the frank story of my recollections of John Logie Baird, Scottish genius, engineer, inventor and pioneer of television.

To begin in this mood of frankness, let me preface the story by remarking that I delayed writing this book because I had received many requests from others for information concerning Baird's remarkable character; and I supposed from the persistence of these inquiries that it was only a matter of time before a satisfactory biography appeared. Such information I gave gladly, and will as gladly continue to give. In my present state of health I should have been glad to leave to others the honour of writing Baird's remarkable story. However, I have found that some of the sketches attempted of Baird have turned out to be somewhat unbalanced, due either to incomplete knowledge of the subject or because they were written, unconsciously perhaps, with a "slant."

It is difficult, for instance, to see how anyone associated with the B.B.C. can hope to give an unbiased picture of the part played by Baird in the history of television in Britain. Certainly, nobody has yet been able to give a satisfactory explanation of the puzzling relationship—or lack of relationship!—between John Baird of Television and John Reith of Radio.

With the growth of television in popular esteem—and

how it has grown in recent years!—there have already sprung up around the name of John Baird all kinds of legends which clearly demand explanation and clarification. That a straightforward account of this lovable genius is called for is obvious. Such a need has been constantly underlined during the course of my researches, in which I have endeavoured to check up on Baird's relations with such leading scientists, engineers and statesman as Lord Samuel, Lord Reith, Professor Sir Edward Appleton, Sir Robert Watson-Watt, Sir Noel Ashbridge, Sir Frederick Rowland, Sir Edward Wilshaw, Sir Louis Sterling, Captain P. P. Eckersley and many others.

Each of these eminent men not only supplied me with information for which I asked in connexion with the writing of this book, but many displayed, in conversation, a keen personal interest in the story of Baird. Like many others, they had wondered. . . .

To quote only one instance: Lady Samuel, on hearing that I was to see Lord Samuel to talk about the pioneer days when he, as a member of the Government, showed so much sympathy and insight into Baird's work, took care to be present at the interview and contribute her quota of recollections of television in Baird's laboratory. A realization of Baird's greatness is growing up and a persistent demand for the full facts of his life is beginning to make itself felt both among the general public and among those who knew at first-hand some of the fragments of his important and tragic history.

But let this be said at once. No one will dare challenge the right to the premier place in the history of modern scientific achievement of the man who gave the world the gift of "second sight." Since this is so, one question remains to be asked: was Baird, who deserved so well of his country, fairly treated? He died, remember, leaving but a few thousand pounds. Lord Samuel, as I shall tell, showed a realistic attitude to the question; but others voiced a more widely accepted view that Baird typified the dreamy, helpless inventor—the schoolboy's conception of a

romantic, absent-minded professor, whose work was impeded by harsh realities. We shall see.

In the same strain is the fallacy that Baird went straight from his homemade laboratory and sold himself to the City. It is a picture supported by Lord Reith's reasons, given to me, for not getting together with his fellow Scot and one-time fellow student. Reith's latest letter to me is characteristically marked "Private and Confidential." However, it is frank and to the point and for this I am grateful. Although I am prevented from directly quoting it, I note that it bears out finally the conclusion I had formed in the many conversations I had with the one-time Director-General of the B.B.C.

It is no matter for wonder that, following upon Baird's demonstrations of crudely transmitted shapes and shadows —this magical projection of visual images *through* intervening walls—I made it my immediate mission in life to help him bring his invention to practical completion. He *seemed* as feckless as a child in business matters and, indeed, gave himself little time for them. Yet, as I came to know him better, I found that for all his absorption in his creative work he was not without a touch of the canny Scottish sense of values, nor yet indifferent to worldly successs. I believe he always knew that he had staked his claim to fame and, possibly, to great wealth.

Fame came to him, in fact, long before his too early death and there was a moment when a considerable fortune lay within his grasp. But he did not seize it. Whatever money he made—and by some standards he made a good deal—he expended chiefly upon the furtherance and the perfecting of his inventions.

Yet in Britain he never gained the recognition which was his due, and to this day few of his compatriots realize that John Logie Baird ranks among the greatest inventors of this or any other age. It may be true that no one man can claim the whole credit for any epoch-making scientific advance. There are always many explorers crossing the frontiers of present knowledge into the dimly apprehended

territory of inspired deduction. Baird, however, was to television what Marconi was to ordinary radio. That is to say, he outdistanced every other explorer in the field and established his country's claim to world priority in visual broadcasting.

It is a tragedy that Great Britain lost, or threw away, the commanding lead she once had in the development of this new and potent means of communication, education, entertainment and propaganda. Had she given John Baird the support he deserved, at the time he most needed it, she might have consolidated a priceless asset, saved him from the consequences of his own obstinacy, and asserted her supremacy in a new industry of incalculable importance.

The place held by Baird in regard to television today is abundantly clear. He was the father of *all* television and, whatever the complications, financial and personal, that intervened between his first production of the idea and the practical realization of his dreams of a television service, no one can rob him of that distinguished paternity.

I have had striking exchanges of views with some of the most eminent men with whom Baird was in some way associated. My own association and deep friendship with Baird began, as he himself has written, spontaneously. We liked each other at the first meeting and I was much touched to find in the notes he left after his death that my affection for him was reciprocated.

A word as to these notes, which are in the fullest sense autobiographical. These remarkable confessions of Baird tell more than could be gleaned at second-hand. On hearing that they were in existence, I interrupted the writing of this book, which was almost half-finished, in order to incorporate the gist of what he himself had to say.

It was only by mere chance that I heard that Baird had actually begun to write his autobiography. A mutual friend, Lindsay Carstairs, at whose home Baird stayed a while, had seen an earlier draft of some of these notes. On my writing to Miss Baird, John's sister, who lives in Helensburgh at the house where Baird was born, she in turn con-

firmed that Baird had written the notes. The revelation that Baird had himself begun to write his life story excited and pleased me, for I had often, as I thought vainly, urged him to do this very thing. He was reluctant to do so, although he had inspired the writing of others.

My own book, *Television Today and Tomorrow*, one of the first on the subject, which I wrote in collaboration with a member of the Baird staff, Barton Chapple, was well "vetted" by Baird. He was quite willing to do this, but although I had procured an offer from a publisher for him to write an authoritative account of television, he never could get down to doing it. It was only when, in order to undergo treatment for his health, he found himself at a loose end that he began to write these notes. How moving they are the reader will see. Thus I scrapped the story of his early boyhood, which I had from him verbally and which had been told in interviews in various moods, and have replaced it with the substance of these later notes, which give the authoritative story of his own beginnings from Baird's own hand.

These notes finally reached the Scophony-Baird Company, and I am grateful to its managing director, Mr. L. F. Odell, who agreed that I should be given access to them.

These notes show Baird as he really was—penetrating, witty, self-effacing and withal too timid, too self-conscious to stand up to the harsh realities of the board room. Considering that he wrote these notes in the twilight period of disillusion and frustration, he managed prodigiously to maintain his sense of humour. That he relied somewhat on his memories, some of his notes clearly show—in some cases he confuses me with Marconi! The probability is that he wrote "M" in his notes and this in turn was translated into Marconi.

And when it came to high finance Baird was clearly at a loss. His notes reveal how unaware he was of the most dramatic period in the history of Baird Television. Indeed, it is true that when Baird Television reached a crisis and it became vital to find new capital, my negotiations with

Isidore Ostrer of Gaumont-British could only be conducted under a solemn promise that I would not reveal anything about them, not even to Baird, until the whole of the negotiations were completed. I kept that promise and, in fact, nobody but myself ever did have the complete story which I now reveal.

Filling in the gaps of Baird's own story, I am able to tell for the first time the strange history of the American negotiations. These documents have hitherto been locked up among my private papers and are vital to any authentic record of television.

Baird lived only for his work and, in a sense, he died for it. I want to make his story widely known because it is fitting that his countrymen should appreciate the debt they owe to him and that the outside world should recognize him as one of the great men of the century.

I affirm that in my own long experience there has been no more astonishing episode in the history of British endeavour. The life story of Baird has all the elements of romance, achievement and tragic disillusion. With the mounting interest in television, this is surely the moment to tell it.

I have no other motive and whatever profits may accrue from the publication of this biography will be handed over, with her kind permission, to Mrs. Baird, the inventor's widow, to be used for whatever purposes she may think fit.

CHAPTER ONE

BEGINNINGS

JOHN LOGIE BAIRD, the television pioneer, was born in 1888. His father was the minister of the West Parish of Helensburgh, a small watering-place near Glasgow. The elder Baird had gone there immediately after finishing his studies at Glasgow University, where he had obtained his M.A. and B.D. and showed remarkable talent. A small body of residents in this little seaside resort had sent a request to the University that a student should be sent to open a small church to serve their needs. Baird's father was chosen for the task.

Among those who came to Minister Baird's church was Miss Jessie Inglis, one of a wealthy family of shipbuilders who came to Helensburgh for the summer. They looked somewhat askance at the struggling young clergyman when he proposed marriage to Jessie, but the opposition was eventually overcome and Miss Jessie Inglis became Mrs. Baird. The little church prospered; the elder Baird must have been energetic and enterprising. Among other activities, he formed a literary society—evidence that the imaginative streak which John Logie Baird showed very early was an inherited faculty. It is interesting to note, by the way, that one of the literary society members was Bonar Law, later Prime Minister.

The Bairds acquired their name from the word "Bard," a singer, for they were apparently a musical and romantic tribe. They also appear to have been very prolific and to have migrated from the west of Scotland to the east. The name of Baird is much more common on the east coast than on the west. In fact, there are in Edinburgh more Bairds

than there are Smiths and they run the Browns fairly close. John Baird never traced his ancestry beyond his grandfather, who was a farmer in Falkirk, but he delighted to describe how the Baird family was descended originally from the Iberian kings of Ireland. "One of these gentlemen, called Sodban," related Baird, "was expelled from Ireland for having perpetrated a deed of indescribable obscenity and fled to the west of Scotland, where he founded a tribe which was to become known under the name of Baird."

All Baird's references to his father in after years were tinged with respect and affection, but he adored his mother.

"My father was a bright boy," he has written, "and, in those days, there was only one thing to do with bright boys. That was to put them into the Ministry. The great ambition of every Scottish family in the middle classes was to see their son 'wagging his head in the pulpit.' My father did well at the University and would have done better (so he used to say) but for the fact that he had to give a great deal of his time to tutoring, in order to augment his very small resources. However, he took his M.A. and B.D. with some distinction, and later became, if not a Professor, at least an Examiner in Pastoral Theology. He was a keen student of Greek and, in his later years, of German."

Baird's maternal grandfather, George Inglis, was an artist. His existence, one is not surprised to learn, was "precarious." Baird, who had always something of the artist in him, was later to know what that polite adjective meant in terms of human suffering. George Inglis had two brothers, Anthony and John, wealthy and successful shipbuilders in Glasgow. George married a beautiful but flighty Frenchwoman and had three daughters, Elizabeth, Mary Jane and Jessie, the mother of John Logie Baird. The flighty Frenchwoman ran away and left George. The chapter of family misfortunes was not over: George later died of pneumonia and Elizabeth fell off a breakwater at Southampton and was drowned. The two remaining

daughters were adopted by wealthy relatives, Mary Jane by a Mrs. Breen, the wife of the Italian Consul in Glasgow, and Jessie, Baird's mother, by John Inglis.

Long afterwards Baird tried to put to paper what his mother had meant to him. "Of my mother, I find it difficult to write. She was the only experience I have had of pure, unselfish devotion. Her whole life was taken up in looking after others, particularly after myself, with very little reward, unless one can except the whole-hearted love of one small boy."

By the time Baird began to "sit up and take notice," as the saying goes, his father's efforts to establish himself in the world were over. The congregation was firmly established and had built for itself a substantial grey-stone church with an impressive steeple. Baird points the moral of religious and worldly success shrewdly when he writes: "The congregation of the rival Episcopalian Church had run out of funds before they were able to complete the building, so that *their* church remained steepleless."

Baird was a healthy and energetic infant until, at the age of two, he contracted a very serious illness—"stoppage of the bowels" was the diagnosis—and he was ill for several months and remained for a time what he describes, with a peevish glance at his future history of ill-health, as "a delicate weakling." All that he remembered of these days was "a faint image of myself under an apple tree on a red blanket, the first impression to remain in my mind after fifty years."

The manuscript notes found by me after his death give such a clear picture of those early days that I cannot resist quoting at some length.

*

"In those days life moved far more slowly and with much more dignity than it does today. There were no motor-cars, no wireless, no aeroplanes; the telephone was a strange novelty possessed by a few of the more wealthy; the gramophone, a strange instrument, appeared occasionally in booths at fairs held in the village. Mysterious cylinders

revolved beneath a great glass dome: those who paid twopence had the privilege of inserting rubber tubes into their ears and hearing a squeaky voice proclaiming some dissertation.

"I remember seeing a motor-car for the first time. I must have been about eight years old. It was a strange affair, with immense wooden wheels. Ten years later I bought a second-hand motor-cycle with a tiny engine under the seat. It had been, in its day, the last word in cycles, and was called a 'Kellycomb Antoinette.' It cost me five pounds. After a little while I sold it and became the possessor of a nondescript tri-car, a perfect scrapheap on wheels, which was known locally as 'young Baird's reaper and binder,' from the appalling noise it made.

"In our social life the old caste system, though already in a precarious condition, still survived. In the lowest caste were the beggars, tramps and gypsies, analogous to the 'Untouchables'; then came the dustmen, labourers and navvies. Next—but at quite a distance above them—came the smaller tradesmen, such as butchers, bakers and grocers. These again merged into the small business man; and the business man, in turn, expanded into the city magnate. Mixing with this stratum and oscillating between its extremes were the professional men, doctors, lawyers and clergy. Above these, a race apart, were the country gentlemen, the landowners of the County, occupying much of their time in the absorbing business of sport. Right at the very top of the tree was the Laird, or chief, Sir Ian Colquhoun of Luss.

"Helensburgh received its very unfortunate name from Lady Helen Colquhoun, wife of Sir James Colquhoun, on whose lands the town was built.

"And in this connexion I may here interpolate the story of an amusing encounter with a New York solicitor named Coen. He told me that his ancestors came from my part of the country and that the name Coen was, in fact, a corruption of Colquhoun. This may be so, although it sounded rather far-fetched. Nevertheless it was an example of the

very flattering esteem in which the Scottish race is held, particularly by the Jews, whose eagerness to establish a Scottish ancestry seems rather peculiar when one considers that the Jews are members of a civilization whose traditions and teachings have dominated a great part of the civilized world. The Jews were a learned and highly civilized people at a time when the Scots were wild barbarians.

"I never saw Sir Ian Colquhoun, but he had a high reputation as a sportsman and an upholder of the old Clan traditions. I was impressed by a picture of him which appeared continually in the society papers, showing him to be a fine figure of a man, in Highland costume, with short kilt, bare legs and bare feet, striding vigorously over his native heather, oblivious of thistles and cow pats.

"The house in which we lived was not a manse, but belonged to my father, who had purchased it after his marriage, with the help of my mother's dowry. It was an old stone house called 'The Lodge,' built in the most inconvenient possible fashion, but with a fair-sized garden, in which I spent the greater part of my childhood, playing with Willie Brown, the small son of a gardener who lived next door. The gardener was known as 'Auld Broon,' and was one of the assistant gardeners to Ure of Cairn Dhu, a local magnate. He was paid one pound a week; on this he supported a wife and two children in happy contentment.

"They had a room and an attic, for which he paid five shillings a week rent. He was able to buy all necessities, and even save something, out of the remaining fifteen shillings, although Willie had a little sister who also had to be supported. Willie had only one ambition: to be a gardener like his father. A happy, healthy little boy, he became in turn a happy, healthy young gardener, untroubled by any hopeless ambition to be one of the gentry.

"The latter, in addition to clergymen, doctors, the 'County' and most of the business men, he regarded with complete contempt. Modern education would have wrecked poor Willie's happiness; he would have learnt to despise gardeners; he would have been taught that he could have

become one of the gentry, and even, by great effort on his part, risen to be Prime Minister; he would have been haunted and tormented by discontent and frustration. My father's church knew better. His flock were taught to 'be content with such things as ye have,' and that 'blessed are the humble,' and other such useful maxims. One of the Sunday School children's favourite hymns was:

"Day by day the little daisy
Looks up with its yellow eye;
Never longing, never wishing
It were hanging up on high.

"I was a very imaginative child and retain a memory of an episode which haunted me, although it was probably quite meaningless. One Sunday morning, when I was a very small boy, I was left at home when the family went to church. I was standing at the window, my head just reaching the window-ledge, and the house was very quiet. Suddenly an aged man, bent over his stick, tottered round the corner of the house and looked up at me. I was terrified and jumped back from the window in horror. A strange idea took root in my mind that the old man was myself grown old; the horror that I should one day become such a creature made me turn and run from the window.

"Who the old man was I do not know—probably some visitor wandering around the large garden as they sometimes did. Or was it some child's daydreaming vision? Sometimes I wonder if one day, revisiting the old home, I will look up and see looking from the dining-room window a horrified little boy. . . .

"Willie and I were inseparable; from morning to night we played in the large garden, building mud houses. I had two elder sisters, Annie and Jean, and an elder brother, James, but Willie filled the horizon until I was five years old, when I was taken to school. My first school was an extraordinary, Dickensian *ménage*, kept by a Mr. Porteous and his wife. Mr. Porteous maintained discipline by marching through the class-rooms with a cane, which he used

vigorously and indiscriminately. I was a day boy and also too young to go under Mr. Porteous himself, and therefore had a happy, carefree time, learning to read and write without any particular effort. Mr. Porteous went bankrupt (and did not even pay his church seat rent) and so I was removed from his school and sent to Miss Johnston's Preparatory School, kept by a most formidable middle-aged spinster, who ruled her pupils by the same method as Mr. Porteous. It was to me a most miserable time. I was terrorized and the years spent at that school were among the most unhappy of my life.

"My father was in many ways an extraordinary character. By the time I knew him he was getting on in life, perhaps about fifty to fifty-five. In those days any man over fifty had become an elderly, pompous figure. Those were *not* the days of romping fathers in shorts. Papa was an impressive figure, with a large beard, still brown, through which he boomed at his children in the manner of an oracle.

"Papa had many peculiarities. He used to say that the best time of the day to be out walking was between eleven and three, when the sun was at its height. To come in and lunch during that time seemed quite wrong, so he lunched at 3 p.m. This was very logical; the hours from one to three are certainly the warmest and brightest, particularly in the all-too-brief summer days in Scotland. The results of Papa's logical effort were, however, devastating to the household; it meant two lunches, as the children had to go to school and their lunch had to be at 1 p.m. This made no matter to Papa; in those Victorian days paterfamilias was master, and his wishes were unquestionable law. Later in life I tried the three o'clock luncheon myself, being a sun lover, but the trouble that arose made me drop it very promptly.

"The Bairds had a strain of eccentricity running through them. It evidenced itself in my father's Rabelaisian humour and peculiar habits. My aunt, Eliza Baird, married an Australian millionaire, and developed a mania for attending auction sales, where she bought lavishly. The

whole of her large house was stacked to the roof with rubbish bought at such sales, her prize bargain being twelve dozen chamber-pots.

"My other aunt was not fortunate in her marriage. She married a poor farmer and their mania took the form of pets. Her house was infested by innumerable dogs, cats and fowls, and she had a particular hen called Lizzie which slept on her bed.

"Dignity and Decorum—without these there is but little hope of rising to the high places in the Church; a sense of humour must be kept in proper check and the solemnity of a judge falls far below that demanded from a Scottish minister. It followed that my father was seriously, perhaps fatally, handicapped in his profession by his particular brand of humour. As a child I saw very little of this, and what I saw or heard passed completely over my head. To me my father seemed a ponderous, forbidding figure. His efforts to joke with me were only frightening and embarrassing, but he was famed for his humour throughout the west of Scotland, and many stories were attributed to him, two in particular, which I remember.

"He had a strong dislike for marriage of necessity, common enough at one time in Scotland. He was called to officiate at one of these and arrived, with reluctance and disgust, half an hour late. 'You are very late, Mr. Baird,' said the bridegroom. 'Yes, about six months late, I should think,' said my father.

"He had long ceased to contend for the truth of the stories of the Old Testament, as witness the following anecdote. He had a favourite theological student, one Willie Milne—a very devout youth.

" 'Now, Willie,' said Papa. 'You believe the story of Jonah and the Whale?' 'I do indeed, sir,' he said. 'Aye, Willie,' said Papa, 'you and the whale rival each other in swallowing-capacity.'

"The higher dignitaries of the Church regarded such episodes with apprehension and disapprobation, and so Papa was passed over when they made recommendation for

the higher places in the Church. He remained in his little parish, while many of his contemporaries rose from one preferment to another, and, no doubt, towards the end of his life this embittered him. One by one those who in his youth had looked up to him with respect and even awe, rose out of his orbit, leaving him far behind. One of his youthful circle, Bonar Law, even rose to be Prime Minister.

"But in spite of his unorthodoxy, Papa had a considerable following among the devout. I remember, when a child, being stopped in the street by a pompous member of the congregation, a man whom we children knew as 'Old Coffin Face.' 'Ah!' he said, when he met me. 'You are Mr. Baird's son, are you not? I am a great admirer of your father; many times I have felt the power and emotion of his beautiful prayer at the Sabbath evening service.' Was he, in fact, as my father regarded him, a posturing, mouthing old humbug?

"The Church dominated my life and the life of those around me; it was a living force in those days and I was a wholehearted believer. I thought that God was actually floating somewhere overhead, a stern man with a beard, something like Papa, only of enormous dimensions, infinitely powerful and fearsome.

"Fear, indeed, hung over me like a dark cloud in my childhood—fear not only of God but of intangible evil, ghosts and spirit creatures of unimaginable horror, waiting and watching for an opportunity to get at me.

"At night I was put to bed at eight o'clock and left alone, to lie in abject terror. I covered myself with the blankets, leaving only a little breathing hole, while the grey lady crept up to my bedside or the two supernatural old men crouched at the foot of my bed, waiting and watching; a burglar or tiger would have been a welcome intrusion.

"Later, to the fear of ghosts was added the ever-growing fear of God; I went through a phase resembling the state of mind of the Children of Israel, propitiating an angry and jealous Deity. I prayed interminably, and even felt that

sacrifices were demanded of me. I went on praying, fearing God and making propitiating gestures long after my reason regarded such things as altogether contemptible and ridiculous.

"By the time I was twenty I knew, or thought I knew, that I was just an animal, a mechanism, a cousin of the arboreal ape. The clergymen who told me I was an immortal spirit imprisoned in mortal clay I regarded as hypocrites and humbugs. The journey of life was, I knew, a meaningless pilgrimage from nothing to nowhere: 'Let us eat, drink and be merry, for tomorrow we die.' Now, after some thirty years, can I add anything to these youthful beliefs? Only this—that now I am less sure of what seemed sadly clear then. As the end grows nearer, I become less certain that it must be *the end*, less certain of everything. The hard certainties of youth, like the rest, are becoming 'such stuff as dreams are made of.'

"I read a great deal of everything and anything, and it is interesting to consider what out of all this I have retained. There is much of Goethe's *Faust*, something of Tolstoy, much of Voltaire, much of Shakespeare's *Macbeth* and *Hamlet*. Not that these classics were my favourites; favourites came and went: Guy Boothby, Max Pemberton, W. W. Jacobs, Jerome K. Jerome and many others. Not one line of any of these has left a trace, whereas even today, after over thirty years, I remember whole passages from the classical authors; their words bit deep.

"One popular author, however, soars far above all others and takes his place among the classics. In my boyhood and youth he was a demigod; the reading of any new book by him I regarded as a feast. This was H. G. Wells and today he still occupies a high place, although he is no longer a demigod. I have met him in the flesh and not many can submit to this ordeal and remain gods—certainly not Mr. H. G. Wells, that pleasant, stubby little man with the squeaky voice. Nevertheless, of the popular authors of my youth he is the only one who survives, and actually takes his place among the classics.

"Thus when an arrogant young man, sure and certain of the absurdity of religion, I used often to try to convert to agnosticism the clergy who came to our house as 'pulpit supplies.' These young men, fresh from the University, had all the theological gambits ready for me, and they met my confident spear-thrusts with vast verbal smoke-screens, pompous evasions, reference to authorities, references to the original Greek Testament. They twisted and turned far into the night, until the discussion died with the exhaustion of both parties. The older clergy baffled me by repudiating reason and intelligence alike and appealing to faith."

Baird's own description of an average day in the life of his family gives an interesting peep into the bygone activities of the folk of a Scottish manse.

"First thing in the morning at eight o'clock the children's breakfast had to be prepared. Then, at nine o'clock, Papa's breakfast. Now came shopping and a round of visits to the poor of the parish. When I was very young I used to accompany my mother on these visits and remember very clearly some of the strange and pathetic characters we called on. There was old Mrs. Mac, for instance. All that was to be seen of *her* was a head wrapped in a not too clean nightcap and dimly seen in the darkness of a cupboard bed. Her home consisted of one very musty room which served as kitchen, sitting-room and bedroom combined. She was entirely supported by charity and lived in continual dread of being sent to the poorhouse. My mother visited her every day with many parcels of food. While they talked, I sat on a dilapidated horsehair sofa and examined a lithograph, showing Jesus walking on the sea.

"We also visited another old and bed-ridden woman in another dingy cupboard bed. Then there were a number of poverty-stricken younger women and squalid families with tales of drunken husbands.

"When the round was completed, lunch had to be prepared for the children by one o'clock. This over, another lunch had to be prepared for Papa at three o'clock, then high tea for the children at five o'clock, all with the aid of

one overworked domestic. The children again had supper at eight-thirty, followed by Papa's at ten o'clock. There was little leisure time, but I never heard my mother complain. All this work was done with a smile and cheerful willingness."

These visits to the poor had a strong effect upon the young Baird and his later experiences did not do much to reconcile him to the social system which permitted them. One of his juvenile schemes to overcome poverty was to earn a sum of £2,000 and invest it in Government securities at 2½ per cent so that he would have an assured income of £1 a week and be "permanently beyond the reach of the workhouse." A quotation from his notes bears on this early preoccupation with social problems:

"I saw the extraordinary phenomenon of apparently decent, respectable people being reduced to abject poverty and living a life of misery and despair until semi-starvation and privation sent them to the local poor institution or the cemetery. A continual and embittered struggle for livelihood was all around me. The poor people whom I visited with my mother lived in continual privation and fear, whereas the upper classes appeared, in some mysterious manner, to be secure beyond the reach of want. They did not have to earn money—it seemed to come to them automatically. When I inquired, I found they received their money from dividends, from interest on money left them by their fathers or relations and, as this money itself remained untouched, it remained to be left to their sons—the money, as it were, breeding faster than the family to which it belonged. I conceived the idea of forming a fund to eliminate poverty from Scotland. The scheme was to be started by myself. I intended to make sufficient money to leave my four children (I regarded four as a reasonable number!) £1,000 per annum each. The fund would be invested at compound interest and would be sufficient to allow for each of the four children living to eighty years and, at their death, would have augmented itself by compound interest sufficiently to allow for each of their four

children having £1,000 per annum: at their deaths, again each of the children would have £1,000. The foundation fund was in fact to be so large that at 2½ per cent interest it would provide for all my descendants, so that I calculated in a few hundred years the whole of Scotland would be inhabited by independent gentry!

"It seemed straightforward enough, but even to my childish mind there appeared to be a limit. Suppose my family spread over the whole earth and the world was entirely peopled by independent gentry, who would do the work? Still, it could be all right if confined to Scotland (!) and I saw no reason why Scotland should not be peopled by independent gentlefolk, so that nothing would be heard throughout the land but the whizzing of swinging golf-clubs, the plop of tennis balls, and the fruity voices of the gentry declaiming 'Love-fifteen' and shouting 'Fore,' and the sound of their happy bell-like laughter as—in battalions—they shot down the grouse and pheasants, going across the glens and bens of their Scottish paradise.

"In Helensburgh poverty was, for the most part, not the open horror of the Glasgow slums, but a horror hidden beneath the cloak of genteel respectability. This was just as well, for the condition of the poor in city slums in my youth was appalling. I have seen young children running about in the backyards of Glasgow tenements, clothed only in old sacking, in the icy wind and rain of a Scottish winter. My blood boiled when, fresh from such sights, I used to read the Society notes and see in various magazines photographs of the idle rich ski-ing at St. Moritz, sunbathing at Monte Carlo and flaunting their over-dressed persons at race-meetings and house-parties.

"The country could not afford to spend enough on its children to give them even the comforts and protection of the lower animals, or so the wealthy ratepayers insisted. In the Great War, however, when the security of these same wealthy ratepayers was menaced, they contrived to spend as much in a week on destruction as would have banished every slum from Glasgow."

Baird's days at Miss Johnston's "Dickensian" academy came to an end when a new school was opened in Helensburgh. "Larchfield" he described as a "bad school" run by three public-school men fresh from Oxford and Cambridge. "They made it an imitation of their public schools," wrote Baird, "and a very poor imitation it was, with all the worst features and none of the best."

This is a scathing remark, but the reality was worse. Sport was paramount at "Larchfield," and from two till four every afternoon the hardy or presumed-hardy scholars played rugby football in winter and cricket in summer. After the game the routine was to strip and proceed to a cold shower. "In winter it became an unbearable ordeal," said Baird, and, remembering his later history of continual chills and colds, one can well believe it. Baird tried every subterfuge to escape, but was detected with remorseless sagacity. Sooner or later "a dread voice would be heard shouting: 'Baird, you have not had your tub!'" and, gripped by the hair of his head and thrust under an icy douche, the future social rebel and most independent-minded inventor of his time must have had ample leisure to reflect upon the blessings of the public-school system of *mens sana in corpore sano*. These murderous methods of physical education seem to have laid the foundation of Baird's lifelong proneness to colds and chills, for the effect, at the time, was to confine him to bed for most of the winter months. There is something quaint and pathetic in Baird's later attempt to construct a fortune on a basis of medicated socks, but cold feet were always with him and he "used to think how pleasant it would be if the surface of the globe were covered with three inches of warm water, so my feet would always be warm."

Among the Classics, Latin was Baird's chief bugbear. He stayed year after year in the same class—"term after term I translated the same Latin lesson—*Fabulae Faciles* (Easy Fables)—until I came to know the first story by heart."

Baird tells a delightful story concerning that monotonous

torment of his schooldays. The Latin master at this school for Spartans stormed and shouted at the abysmally bored Baird, hoping to achieve some minimal progress. But in vain. Many years after, Baird was making a speech at the Hastings Pavilion on the occasion of its first opening to the public. When he had finished who should step on to the platform but his old master!

"Well," he said, "I don't suppose you remember who I am?" The result was a classic example of how unwise it is to renew an unwelcome acquaintance with a sensitive man with the assumption that he has forgotten old, unrepaid injuries.

Without a moment's hesitation Baird began to reel off the first, indelibly impressed lines of the *Fabulae Faciles*:

"Hercules, Alcmenae filius, olim in Graecia habitabat. Hic dicitur omnium hominum valudissimus fuisse. At Juno, regina deorum, Alcmenam oderat, et Herculem adhuc infantem necare voluit."

"For thirty years," writes Baird, "that accursed rubbish had been clogging my brain. What infinite pleasure it gave me to throw it back at its instigator and watch his astounded face!"

No form of science was taken at "Larchfield" and only a travesty of mathematics. The only thing that Baird knew really well when he left that school was the first story of *Fabulae Faciles*.

Baird's interest in practical science had an unexpected outlet, however, when a craze for photography spread through the school. It is scarcely surprising that this most fascinating and experimental of hobbies should have claimed his enthusiastic support. "I was badly bitten," he relates in his notes. "I saved and begged every penny I could and finally became the possessor of a dream camera —'Lizar's ¼-plate perfector, Triple Expansion, Rack and Pinion Focusing, Rising and Falling Front, Folding Back, Taylor and Hobson F7 rapid rectilinear Lens, Bosch Lomb roller-blind shutter, 1/100th to 1/10 second.' I had the

specification by heart and haven't forgotten it." He had not remembered it perfectly accurately, however. He wrote "expansion" instead of "extension," which is, photographically, nonsense.

He rather seems to suggest that the actual possession of this marvellous apparatus caused him to be elected president of the school Photographic Society, somewhat on the principle of street cricket, where the owner of the bat is pretty sure to emerge as captain of the team. There seem to have been other cameras in the society, however, besides this nonpareil, for meetings were held "with great decorum" and "photos taken by the members were passed round and criticized," besides the reading of solemn articles on the mystery, now beyond recall. It seems a long way from this clumsy plate-camera, with its drunken "extensions" and old-fashioned "rising and falling front," to the sleek television cameras at Alexandra Palace, but the destiny of John Baird spanned them both. One is tempted to imagine an apocryphal paper read before that long-defunct society on: "The Technique of Sending Pictures by Wireless." What a sensation it would have caused!

Some of the members of that society were recalled by Baird in after years. "They are now scattered far and wide," he wrote. "Some of them world famous and names to conjure with: Jimmy Bonner, killed in the First World War; Jack Bruce, now a prosperous shipowner; 'Bony' Wadsworth, now a leading London accountant and, lastly, Guy Robertson, known as 'Mephy,' my lifelong friend who, forty years later, killed himself, driven out of his mind by the World War. Forty years ago we knew nothing of what Fate had in store for us and sat round the table at the Lodge, our world bounded by the School and the Parish, with no thoughts farther ahead than planning the summer holidays."

Anyone who wishes to picture Baird as the serious, bespectacled student might seize on this photographic society episode as an instance of a studious and scientific bent of mind, but the end of the society's life had that

touch of low comedy with which the story of Baird is frequently sauced.

At one of the meetings a solemn discussion on photography was "interrupted by 'X.' He had, it appeared, suffered a terrible insult. While innocently passing the time by instructing young Sonny Forbes how to climb a lamp-post and stimulating Sonny by the application of a rubber strap, old Forbes had appeared and, unthinkable indignity, boxed his ears. The club were there and then enlisted to wipe out the insult and avenge 'X' on old Forbes. Our first effort was to borrow a builder's ladder and climb to old Forbes's pigeon loft and wring the necks of all his pigeons. In cold terror I clutched the bottom of the ladder as the bold 'X' at the top did his dastardly work on the wretched pigeons. We took the bodies down to Brown the fishmonger, and sold them for fourpence each! Thus, escaping undetected, we planned further vengeance. All poor old Forbes's prize tulips were ruthlessly cut down and laid in a row at his front door. The door bell was then pulled by a string and, when old Forbes came to investigate, he was greeted with a volley of mud balls. The pace was, however, too hot for most of the members and resignations were tendered from all sides. In spite of a hastily passed rule that all members who resigned should be fined five shillings and receive six strokes with the cane, the club broke up."

Of all the members of the photographic society, only "X" was specifically mentioned by Baird as having "risen to world fame." "But I may not give his name," he wrote regretfully. Here is a problem for the psychiatrists: in what field of endeavour would a man be most likely to succeed who planned the bold *coup* on the pigeons and had the nerve to carry it out in person? Perhaps this is not a "childhood memory" of a type suitable on which to base a Freudian hypothesis!

However, let Baird, the man of imagination, have the last word on the prank which, in its boldness and daring, seems to have made a deep impression on him. "It is strange how the pigeon episode still stands in my memory. The

clear moonlight night, the rickety ladder sloping up into the darkness, the shadowy outline of a pair of legs, the wild squawkings and flutterings of the pigeons and a voice hoarse with wrath and agitation whispering: 'Keep that bloody ladder steady, dammit!'"

While Baird was at "Larchfield" he had his first and only flight. The experiments of the Wright Brothers had fired the imagination of Baird and of Godfrey Harris, who for many years was Baird's closest friend. They had read with eagerness all the literature available on the new science of aeronautics. Eventually they decided to build an aeroplane —"a weird contraption like two box-kites joined in the centre." After two weeks of work it was finally completed and ready to fly or rather glide, since they had decided to follow the Wright Brothers' example and glide first, before attempting to fly with the assistance of an engine.

The scene is surely enough to fire the imagination of the dullest. Two schoolboys attempting to build and fly a flying-machine, and that in the very earliest days of flying! Was there ever such temerity since the beginning of the world? Once his intellectual curiosity was roused, Baird never failed to bring his ideas to a practical test. Somehow he and Harris seem to have eluded all adult observation, a formidable task, and dragged the malformed kite on to the roof of the Lodge.

With a wry grin Baird himself shatters the picture of the young inventor about to risk his life to test a new invention. It seems he never had any intention of flying! By inference we must imagine that Godfrey Harris was to be the guinea-pig, but Fate, always full of sour humour where Baird was concerned, willed otherwise. What the misunderstanding was we shall never know, but ". . . before I had time to give more than one shriek of alarm, Godfrey gave the machine one terrific push and I was launched, shouting, into the air. I had a very few nauseating seconds while the machine rocked wildly and then broke in half and deposited me with a terrific bump on the lawn."

This nonchalant sentence concludes Baird's account of

the experiment, apart from a prosaic remark that "fortunately no bones were broken." A little illogically, considering the difference between his jumped-up box-kite and the vast metal skyliners of today, he says that he never afterwards had any desire to fly.

Baird's picture of his friend Godfrey Harris, his companion in the "Wright Brothers" episode, is touched with affection, humour and understanding. Together they went through the intellectual upheaval of adolescence, together they wrestled with religious doubts, together they sounded metaphysics and philosophy. In this connexion Baird says: "How well I remember the long interesting talks we had in our student days. I think my brain was clearer then than it has ever been since. The conclusions I arrived at still hold today. The difference is only, perhaps, that they are now less clear, less well understood."

But Baird is never quite happy with this sentimental, perhaps slightly hereditary sermonizing tone. He goes on gaily to say that they tussled with the problem of determinism: "Free will is a myth and an illusion, that is the thesis." The antithesis, he remarks crushingly, was Godfrey himself, and a living antithesis of anything determined and fixed he seems to have been. As a fitting close to this chapter on Baird's earliest memories and friends I should like to quote in full his account of Godfrey Harris:

"He was a mass of brain and initiative but, like 'Mephy' *and* myself, he had a kink. He could not stand routine work, he could not be an employee—he wanted freedom! All forms of employment irked him as forms of slavery. He went to the University and took his B.Sc. and afterwards started business for himself in Glasgow, efforts which merely resulted in the loss of what little capital he had available. He went off to the U.S.A., where he got a job as a draughtsman which he kept until he had saved a little money; then he threw it up, bought a few acres of land for a paltry sum at a place called Wadsville, in the wilds of Louisiana, near the hillbillies, built himself a shack, bought a few goats and hens, planted vegetables and found

himself practically self-supporting. A strange life for a B.Sc., with his only neighbours illiterate hillbillies with the mentality of goats! Their religion was, he told me, Holy Rolling. After the church service, consisting of hymns and prayers, all the lights in the hall were then put out and the congregation, both male and female, became possessed by the Holy Ghost and rolled together on the floor in a vast religious ecstasy, screaming and moaning and clutching each other in the throes of their possession. The number of illegitimate births, he said, was unparalleled, but life was easy and everybody seemed satisfied and happy.

"He lived in happy contentment for many years, with his goats and hens, meditating on the problems of free will and immortality, upon which he wrote me lengthy screeds at irregular intervals.

"One morning he went out to blow up a tree root with a charge of dynamite, to get more space for his hens and goats. The dynamite exploded prematurely and poor Godfrey was blown up with the tree stump."

CHAPTER TWO

EARLY STRUGGLES

WHEN BAIRD LEFT school he went on to the Royal Technical College, Glasgow, travelling up and down from Helensburgh. The College was an extremely efficient national institution. There was little social life. For the most part the students were poor young men, desperately anxious to get on. They worked with an almost unbelievable tenacity and zeal.

Baird did not do well at the Royal Technical College, but finally managed to become an Associate and to get the College diploma. It took him five years to do this.

"I do not think it was altogether stupidity," was his customary modest plea for his own abilities, "for my studies were continually interrupted by long illnesses."

Interspersed between his studies he served as an apprentice engineer. His first experience was in Halley's Industrial Motors at Yoker, near Glasgow. He went there full of zeal and determination to get on, but his ardour was very soon damped. The works opened at six o'clock in the morning and closed nominally at five-thirty, but in practice there was incessant overtime and it was seldom that he was free much before 8 p.m. The work was absolutely soul-destroying, monotonous drudgery. The first job he got was to chip, with a chisel, little grooves in each of a great pile of castings. "I remember they were called 'Spring Housings,'" he says. "Week after week I chipped these little grooves, with all around me the most depressing conditions, and in the winter it was icy cold. The result was that my work was punctuated by perpetual ill-health. This was, I think, in 1909, and the Great War had not yet appeared on the horizon."

These were not the only trials which ushered in his manhood. The pitfall lying in wait for most young men yawned for him especially, as a youngster of passionate imagination. Suppressed physical desire began to darken his days and the impossibility of its fulfilment embittered his hopes.

Looking back, he wrote: "The years of youth and romance were lost in mean and sordid lodgings, in soul-destroying surroundings under grey skies. What waves of jealous anger and hate passed over me as I saw in the *Tatler* photographs of happy bands of the youth of the rich in house parties, ski-ing parties, sun-bathing parties, dancing parties, while I trudged to work in the cold dawn with sordid, miserable and grim poverty on every side, coughing and choking, either sickening for a cold or trying to recover from one. What a wave of resentment and anger comes over me even now when I think of the awful conditions of work in those Glasgow factories—the sodden gloom, the bitter-bleak, cold rain, the slave-driven workers cooped up in a vile atmosphere with the incessant roar and clatter of machinery from six in the morning to six at night and then home to lodgings, surrounded by sordid squalor, too worn out to move from my miserable bedroom."

Baird was encouraged by the knowledge that for him it was only a passing phase. "I was, or believed I was, a short-term prisoner, but if I had been like most of the poor creatures who worked with me, 'in for a life sentence,' I should certainly have become an anarchist and taken part with zeal in anything which would have mended—or ended —my lot. For it was my firm belief that nothing, not even death, could be worse than the fate to which, it seemed to me, these men were doomed."

Black, indeed, must have been John Baird's soul in those early days. But he is ready with the familiar sceptical post-script to these anarchical projects: "The men themselves were for the most part indifferent and took their conditions as inevitable natural phenomena, like the long and bitter winter weather, miserable but unalterable."

The journeyman who worked next to Baird and who was

immediately responsible for him was a fierce old man known as "Big" Gibson, delicately described by his comrades as "a callous old bastard." Baird has pictured him with some gaiety as "an independent and vindictive Socialist, whose lurid flow of foul language is unfortunately unprintable even in these days of obscene novels."

"Big" Gibson stuck in Baird's memory as much as anything for his brush with the chief of the Research Room, who, by the malignity of destiny, was a public-school and university man who endeavoured to retain some vestige of decency and refinement in his dealings with his subordinate. Pursuing this admirable policy, he one day kindly advised "Big" on some question relative to Gibson's work. "Vindictive" seems a good word for this terror of an old man, who thereupon chased the researching gentleman clean out of the shop, rebutting the polite suggestion of his superior with: "Get to hell out of this, ye hauf biled toff!"

A complaint was lodged and the affair had a sequel illuminating to young Baird. The manager, who got on well with "Big," took him aside and gave him the following well-meant lesson in economics: "Aye George, that's fine! You knock the bloody guts oot of the stuck-up bastard. Then you get the sack and your wife and bairns starve. Keep your daunder doon—the poor de'il does his best!"

Baird's postscript is bald: "There it was—lose your job and you and your family starve. There was no dole then."

The First World War was looming on the horizon, little as it was generally expected. Many of those wage-slaves pitied by Baird were about to be released to a fierier bondage. For many of them, no doubt, it *was* a release, terrible as the Calvary to come might be. However, the cloud was still no bigger than a man's hand when Baird completed his course at the Royal Technical College and took his Associateship in 1912. "Then I did one of the most sensible things of my early manhood," he comments. "The Associateship of the Technical College qualified one to take the B.Sc. after six months' attendance at Glasgow University. Eventually my parents let me take this course."

"This six months was one of the happiest periods of my life. I had the sense not to endeavour to cram and did the absolute minimum of work, while heartily enjoying the society of my fellow students. We had innumerable diversions in the happy atmosphere that can only be found in such a community.

"Glasgow University is, I believe, a very plebeian institution compared to Oxford or Cambridge, but after the Technical College it seemed a perfect paradise. In the middle of my course the war broke out. It was expected at first, and confidently predicted, that it would be over in a few months. Germany would give way, Germany would crack, Germany could not stand the strain. Still it dragged on. Urged by some sense of duty, or possibly by the desire to appear well in the eyes of my friends, I presented myself at the recruiting office. A red-faced Glasgow 'keelie' in a badly-fitting uniform stood at the door. 'Upstairs. First to the left,' he shouted in a very broad accent. Upstairs a very raw and very nervous young man sat by the door, while at a desk a young officer filled up forms one by one. 'Take that pipe out of your mouth!' he roared at one lout who was endeavouring to show his sangfroid by puffing away vigorously. 'Name? Age? Occupation? Now then! In there for medical examination.'

"The medical examiner, a shrewd-looking old gentleman, examined my skinny form with sad and disapproving eyes, tapped my scanty chest and placed his ear to listen to my wheezy breathing. An assistant ran a tape-measure round me and shouted the paltry inches with contempt. 'Do you suffer from colds very much?' asked the doctor. 'Yes,' said I, 'a great deal.' 'Every winter you are knocked up, I suppose?' he asked; then grunted: 'Aye, aye, umphn! You can dress now.' He went to his desk and wrote something on a piece of paper which he endorsed with a large rubber stamp. I examined it and read in large red letters: 'Unfit for any service.' I buttoned up my waistcoat and went downstairs. The red-faced 'keelie' was surprised. 'Hallo,' he said, 'what's up? You're back quick.' 'Yes,' I said. 'I am

unfit for any service.' 'You're lucky,' he ejaculated. 'What about the price of a pint?' I gave him a shilling and took my way to the tram—*lucky* to be unfit for any service'!"

Now began a period of further frustrations in which the same old point emerges with startling clarity—Baird was not going to submit to chaotic circumstances; he was not of the stuff of the factory workers at Halley's who thought bad working conditions and monotonous toil were like the winter weather, "miserable but unalterable." It is impossible not to admire his courage when after his next disastrous employment he decided to strike out for himself. Baird was to find that everything is against the man who will not conform, to learn the lesson and yet keep true to the rather wavering line of his own destiny.

When Baird left the University he answered an advertisement and obtained a job as Assistant Mains Engineer in the Clyde Valley Company. He was stationed in the Rutherglen area, and his job was to go out and supervise the repairing of any breakdowns. "I had a telephone in my bedroom and, if the electricity supply failed, I had to get out of bed and attend to it," he says. "It was a horrible job. My memory conjures up visions of standing the whole night in the rain, cold and miserable, while Stibbs, the chief ganger, and his men dug holes in the road to find faulty cables. Trying to placate a gang of truculent Irish labourers at four o'clock in the morning, when they want to stop the job and go home, is anything but pleasant. Sometimes in the night drunken fights started. I remember one particular night Jimmy McGauchy knocking Billie McIlvaney down a manhole and both finally departing with roars of pain and anger and volleys of cursing, and all the time steady rain falling and a bitter wind blowing. Sordid, miserable work, punctuated by repeated colds and influenza. I wanted more money. I received thirty shillings a week and was unable to get a better job because I was always ill. Finally I decided it was hopeless and I had better try to start some business which was less strenuous and in which I would be my own master."

It was a wise decision. "If I had remained travelling along the straight road of an engineering career I should either be dead by now or a hopeless, broken-spirited object. To break my career seemed to those about me the act of an irresponsible madman, the throwing away of all my expensive training. If the choice was between slavery and madness, I preferred madness—there seemed no middle course. 'Are there no ways but these alone, madman or slave must man be one?' It seemed so in my case. If I remained an engineer I saw nothing before me but a vista of grey days, of unrelieved drudgery. Coughing and shivering through the winters, what hope to force my way through the mob of lusty competitors?"

The chief engineer had summed up Baird's chances in a written comment, which Baird seems to have seen by accident. "*We cannot give Baird a better job—he is always ill.*" With what bitterness Baird must have read those words, barring any prospect to a more comfortable future!

"I determined at all costs to 'depart on the wide ocean of life anew,' " he writes, wryly. "It was not easy. Most of the recognized avenues were closed to me through ill-health and lack of money."

The poetic project on which Baird was to base his fortune was a cure for piles! The spirit of comedy had not yet finished with him; however he resented the hard and futile struggles of his youth in retrospect, it is impossible to believe that he wrote the following account of "Billy's Pile Cure" without a smile:

"Billy Barnes, one of the station attendants, had a specific—a mysterious white compound which he claimed to be an infallible cure. He had been a stud groom but had given it up after an accident which had resulted in his being lame in one leg."

Billy seems to have been full of unreliable "bright ideas," as the history of his lameness, related by Baird, abundantly shows:

"In the stud in which Billy was employed he was in charge of a stallion called 'The Duke of Marlborough.' The

Duke was past his prime and not in demand, but it occurred to Billy to use him to get the mares ready for service by the other stallions. So one day Billy put his idea into practice, leading the mares as they arrived to the box of the Duke, who was allowed to nose them and get them (and incidentally himself) into a proper condition of excitement. The mares were then led away to the other stallions, and the Duke was left to cool himself as best he could. Towards the end of the day the Duke lost his temper and kicked his box to pieces, knocking Billy down and trampling on him, breaking his leg among other damage.

"Unfortunately for Billy's pile cure project, I was a chronic sufferer and tried it on myself with such devastating results that I was unable to sit down for nearly a week."

It is typical of Baird that he was enterprising enough to share some of the dreams of the old alchemists. He actually tried to make diamonds! Inspired perhaps by the H. G. Wells story on the subject (Wells, it will be recalled, was one of his favourite authors), he actually carried out his experiment at the Clyde Valley station. (Baird, throughout his life, seems to have felt that the world owed him not only a decent living but a laboratory. Compare his cool use of the Clyde Valley apparatus with his brush with his landlord in the early days of television trials at Hastings.)

This is what he says of his queer attempt:

"Diamonds are created in nature by subjecting carbon to a very high pressure and a very high temperature. I thought I might get these conditions artificially by electrically exploding a rod of carbon, embedded in concrete. I got a thick carbon bar and filed it down into a thin rod in the centre; then I attached a wire to each end and embedded the whole thing in a large iron pot. I connected the wires to a switch which, when closed, put them straight across the power-station busbars. My idea was to pass a stupendous sudden current through the carbon so as to generate enormous heat and pressure. I chose a good time, and then, when no one was about, closed the switch. There was a dull thud from the pot, a cloud of smoke, and then the main

current-breaker tripped and the whole of the power supply went off. I had anticipated this and soon got it going again, but I did not get my wires away quickly enough and difficult explanations followed. Thereafter I was regarded as a dangerous character and, in the general unpleasantness, I forgot about the pot and it disappeared. Perhaps it is today lying in some forgotten rubbish heap, a pot of cement with priceless diamonds embedded in it!"

Baird had always suffered, and always did suffer, from cold feet. On the principle of capitalizing on one's deficiencies, the independent enterprise which was to set him on his feet was "The Baird Undersock—medicated, soft, absorbent, worn under the ordinary sock, keeps the feet warm in winter and cool in summer." Baird's own description of this pedal masterpiece is worth quoting in his own words, characteristically practical to the last detail:

"I suffered from cold feet and was certain I had found a cure, which was to take off my socks and wrap a sheet of newspaper round my bare feet, then to put the sock on again over the paper. Cold feet are invariably caused by damp. The need for watertight boots is realized, but the need for dry socks is often overlooked. Socks in the ordinary way are always slightly damp. Take a pair of socks out of a drawer and hold them in front of the fire and feel the extraordinary amount of moisture they contain. To cure cold feet, make your socks absolutely dry by heating to the point of burning. Even then in a few hours your feet may feel cold again. Then if you heat them and dry them and put a piece of thick paper between the socks and feet your feet will again become warm. It took me some years to discover this simple fact, but what a comfort warm feet are only cold-feet sufferers can realize."

The cure for this grave social evil having been discovered, the problem was to market it. Paper socks were not feasible, so Baird approached a sock maker and after many trials discovered two things. In the trade there are no such things as socks, but only "gent's half-hose," and the home of these is in Hinckley, Leicestershire.

"From Hinckley," related the artless inventor, "I got six dozen specially made, unbleached half-hose. These I sprinkled with borax and put in large envelopes bearing the printed legend: THE BAIRD UNDERSOCK. In the envelope I enclosed a pamphlet describing their advantages, also a number of carefully prepared 'home-made' testimonials.

"I then took a one-roomed office at 196 Vincent Street and inserted an advertisement in *The People's Friend* for 'The Baird Undersock, Medicated, Soft, Absorbent. Keeps the feet warm in winter and cool in summer. Ninepence per pair, post free.' I got one reply enclosing ninepence. As the advertisement had cost me thirty shillings this was not promising, and so, one Saturday afternoon, I packed two dozen pairs of socks in a handbag and set out on my first venture as a commercial traveller. I visited chemists and drapers and sold the two dozen and got orders for six dozen more, and felt that at last I was on the road to success. Not advertising, but travelling, was the key.

"I put an advertisement in the *Glasgow Herald*—'Traveller wanted, visiting chemists and drapery stores, to carry side-line.' The advertisement brought me dozens of replies, and soon, throughout Scotland and as far down as London, travellers were carrying the Baird Undersock. I sold very few in England. Selfridge's bought six dozen and a few others were sold in London and the provinces, but in Glasgow I did well, as I could interview and supervise my travellers.

"I began to get a little money together and spent some on publicity. I sent a squad of women round with sandwich-boards and got my first taste of what is known as 'editorial publicity.' The women were 'news' and photographs of them appeared in some of the illustrated papers with the caption: 'First sandwich-women in Glasgow,' 'New occupation for the ladies,' and suchlike headings. The name 'Baird Undersock' appeared prominently on the placards. Some of the newspapers published this without comment, but in two cases I had to pay a small fee to have the name reproduced in the paper. It was first-class publicity.

"Shortly after this, news of my activities began to percolate through to the head office. I thought that the end was near and sent in my resignation, I was only just in time to forestall getting the sack."

Baird was now completely dependent on his own resources, but the "Baird Undersock" (launched perhaps by those imaginative testimonials which he concocted at Vincent Street!) was now bringing in substantial profits. The undersocks were doing reasonably well in the chemists' shops, but most of the money was made in the drapery stores. Baird had a short and effective way with unenterprising middlemen, as this story shows:

"I sold a dozen pairs to the Polytechnic (the Selfridge's of Glasgow). The buyer who had bought them—out of curiosity, I think, more than anything else—did not make any effort to exhibit them, and when I went round later I saw no trace of the 'Baird Undersock' anywhere in the store. I induced a number of my friends to call round at the Polytechnic and ask for the 'Baird Undersock,' supplying them with cash for the purchase. The result was that the Undersocks were immediately sold out and the drapery counter was besieged by people demanding 'Baird Undersocks.' The effect was electrical! The buyer himself called three times at my little office, only to find it closed. He left a note, however, and I called at the Polytechnic and sold him, on the spot, fifty dozen pairs. He had a special table for my goods at one of the entrances and one of the front windows was filled with 'Baird Undersocks.' The result was, of course, an immediate rush by the inquisitive public. Not only this, Copland and Lye and other big stores immediately wanted to be in on this new line which was booming at the Polytechnic. My whole stock was sold out at once and I booked further substantial orders."

But Baird's arch-enemy, the all-too-common cold, was lying in wait for him, and in the early spring of that year he was laid up with a bad chill. "The business suffered terribly, as it was a one-man show," wrote Baird afterwards, "and on my recovery I determined to go abroad."

CHAPTER THREE

"NEVER JAM TODAY"

BAIRD'S FRIEND, GODFREY HARRIS, whom we left at the end of Chapter One blowing himself up with a stick of dynamite, was himself the explosive force that wrenched Baird out of Scotland and the sock business.

He had gone out to Trinidad and had sent Baird glowing accounts of the possibilities there. Baird, his never much-disciplined imagination easily catching fire, bought countless inflammatory guide-books with such titles as *Ierie, Land of the Humming-bird and Eternal Summer* and *The Caribbean Paradise*. He cloaks the growth of a new wild-cat scheme in his fertile brain with the demurest of company reports:

"I decided to close down the Baird Undersock Company and try my luck in the Caribbean Paradise. I found when I closed the company that I had made roughly £1,600. That is to say, in twelve months of business on my own I had made more than I would have made in twelve years as Clyde Valley engineer. I was full of optimism and set out blithely for the West Indies, taking a cheap passage in a cargo boat so as to keep as much as possible of my capital intact. I had three trunks filled with samples of cotton and other goods to sell to the natives. However, I began to feel a little doubtful of the prospects during the voyage."

It seems that he met a hard-bitten native of Venezuela on the boat who inspected Baird's samples and coolly informed him that his chances of selling them in the West Indies were infinitesimal. He appeared to regard the young Scot as little short of a madman to give up a good business in Glasgow for a wild-cat venture in the tropics.

Baird arrived at Port of Spain after three very unpleasant weeks in a heaving cargo boat. His business education having been accomplished by the incredulous Venezuelan, it remained for the captain of the ship to give Baird some prophylactic hints likely to be of great use to him. The captain told his tale briefly, including information omitted from the guide-books: "A young, virile man in these warm climates generally regards regular visits to lady friends as essential as regular visits to the W.C. And so," said the captain, with immovable composure, "they don't last more'n a year or two. Black velvet and cocktails, that's the life to wind you up. The whole West Indies are rotten with venereal." (*Land of the Humming-bird and Eternal Summer!*) "Christopher Columbus and his lads imported it to Europe from the West Indies. They brought V.D. to Europe, sonny, like Raleigh brought over the potato."

With this disillusioning introduction to the West Indies, somewhat like Martin Chuzzlewit's experience in the New World, only racier, Baird set foot in the tropics for the first time. His own description of the hammer-blows that fell on him on landing will be sufficient:

"The moist heat rose in waves from the crowded pavement; Negroes, Chinese, Caribs, Hindus, Portuguese and a few sallow-faced Europeans jostled me on the narrow side-path as we walked towards the Ice House Hotel, where Harris had booked a room for me. I was glad to get there and get on top of the bare bed in the little carpetless bedroom. I did not feel well and soon I felt worse and, for the next few days, I was very ill indeed. I had contracted some form of dysentery. Most Europeans got it sooner or later, I was told. I had not lost much time. It left me weak and miserable and with my faith in the 'islands of the blessed' considerably shaken."

As soon as he was up and about again he transferred to a boarding-house bearing the grandiloquent name of "Columbia House." Here he was met by the landlady herself, whom he remembers as "a fat old woman with a yellow face of almost unimaginable ugliness." However, she was

very kind, and if it was scarcely the welcome of a dusky beauty he had imagined from the guide-books, no doubt he was glad enough of her cheery welcome: "Come in, come in, we'll take care of you here. I'll be a mother to you!"

Baird shared a large bedroom with a dipsomaniac. From the first Baird felt friendly towards this man, perhaps reflecting that he was a victim of a practical joke, since the appalling heat of Trinidad seemed more likely to raise a thirst in a cactus than cure the mildest dipsomania.

"He was an amiable fellow and most anxious to help me," says Baird. "I felt he *would* be a help, and opened my heart and my trunk of samples for his inspection. I was rather disappointed to note that, anxious as he was to encourage me, my scheme of selling to the natives did not seem to fill him with enthusiasm. However, he said he would himself take some of my samples round and, as he was well in with the chief buyers, might be able to place some orders. He also gave me the names of some buyers upon whom I should call. I set out next day and met with a complete fiasco. I will not dwell on it. After three weeks of interviewing greasy Negroes, half-caste Portuguese, tipsy Whites, and generally having a thoroughly humiliating time, the net result was the sale of five pounds of safety-pins, my one and only sale. What was to be done?"

Baird's frequent illnesses often struck him at moments of disappointment as if the physical frame were not capable of standing the rough wear and tear of life. So it was now: he took to bed with a raging fever and, while there, conceived the fantasy of a jam factory, necessarily making millions, of course, in a few years. It is said that Stevenson conceived "Dr. Jekyll and Mr. Hyde" while in a high fever, but that was a profitable fantasy, even furnishing texts to godly ministers like the elder Baird. With Baird it was different: all *his* fantasies left him with empty pockets and a few more funny memories. If I quote his story in his own words it is not only because of its picturesque wrong-headedness but because Baird never really admitted that there was anything wrong with his

money-making schemes and could years afterwards remember all the rosy dreams that preluded the fiasco. This gives his business memoirs a peculiar, ironic flavour not to be found elsewhere in the memoirs of the disappointed. Here is his story:

"The island teemed with citrus fruits and guavas seemed plentiful. Sugar was produced on the island in great quantity. Why not mix these products into jam and export it in a form in which it would not be liable to rot? The island also was overrun with mango trees, so mango chutney could be added to the factory's products. Here before me was a fortune waiting to be picked up. I found that the centre of the fruit-growing area was at a little native village in the Santa Cruz Valley, a place called Bourg Mulatrice (the Black Man's Village). Here I got a room cheap in a house belonging to the local cocoa planter, a wooden building beside a small river surrounded by a clump of gigantic bamboos, in the very heart of the bush. With the help of Ram Roop (a Hindu youth) and Tony (a large simple creature of mixed generation) I commenced to build a factory. The first thing to do was to find a suitably large pot in which to boil the jam. A scrap merchant in Port of Spain sold me a large copper pan, originally, I believe, a wash-tub, big enough to hold one hundredweight of jam. Underneath this we built a brick fireplace, complete with chimney, and started off with the cauldron filled with sugar and orange cuttings in the proportions specified in the cookery books.

"We then lit a fire: Ram Roop armed himself with one of two large spade-like wooden stirrers and I took the other. We stirred vigorously. The heat became terrific. I took off everything but my trousers. The sugar melted and the jam began to simmer. We continued to stir vigorously, as instructed by the text-books. Sweet-smelling clouds of vapour rose from the pot and floated into the jungle. They acted like a trumpet call to the insect life and a mass of insects of all shapes and sizes appeared out of the bush in terrifying numbers. They flew into the steam above the

cauldron in their thousands, and scorched, fell lifeless into the boiling jam. I dropped my stirrer and ran, but Ram Roop did not seem in the least perturbed. After the first wild charge the insect stream abated a little, and finally we finished our boiling of jam and poured it in glass jam-jars.

"I had, however, calculated without the insects. The factory became a paradise for them. Hundreds of enormous ants invaded us and, in one night, made away with one hundredweight of sugar. The floor of my bedroom swarmed with insects, chiefly enormous cockroaches; great spiders ran up and down the walls, and weird creatures, whose names I did not know, flew in and out in swarms, whilst mosquitoes continually enfolded me in a cloud.

"We sold some pots of jam with difficulty to the local stores. Then I fell ill with fever. Ram Roop and Tony carried on while I gave instructions from my bed. But there seemed to be no adequate market for our wares in Port of Spain, and I decided, when I was able to move about again, to return to London and endeavour to establish a market there. I bought a large cask and a number of kerosene tins and packed them with mango chutney, guava jelly, marmalade and tamarind syrup."

Baird's time in Port of Spain was not "all jam," in either sense. Important in the sphere of personal relations was his meeting with Harold Pound, who later on, in London, was to be instrumental in giving Baird his first taste of success, as a soap merchant. Whilst in Trinidad, Baird shared a bungalow with this new friend, where they spent much time drinking gin cocktails and whisky. Baird tells one amusing story which, though resembling familiar untruths, is worth quoting:

"I remember one evening coming back to find Pound with a large whisky and soda before him, gaping with alcoholic horror at what looked like a stupendous, unbelievably large grasshopper which sat on the table gaping back at him. He was relieved when I arrived and confirmed that the 'grasshopper' was real and had not been living in the whisky decanter. It proved to

be a gigantic locust," said Baird, unmistakably preparing to tell a smoke-room lie. "We kept it in a canary's cage as a pet for the amusement of visitors and fed it on grass and whisky and soda, which it drank feverishly. However, it died of delirium tremens."

It is not the facts that are incredible here; it is the artistry which arranges them so perfectly that it might just as well have invented the facts themselves. Baird was a man with imagination.

Came the time for Baird to set sail for London with his cargo of mango chutney, guava jelly, marmalade and tamarind syrup. Pound accompanied him. Baird says (with great moderation, for him): "I think he was a little concerned about my future. He knew more of London than I did and saw my jam venture in something approaching its true perspective."

Drawing a veil over this monstrous understatement, let us turn to Baird's valediction to "The Caribbean Paradise." It is very brief and funnily enough has quite the guide-book style about it, though its pessimism would not recommend it to the steamship companies: "The West Indies is an excellent spot for those in robust health who can stay at the Queen's Park Hotel and spend their time in bathing and motoring. But living in a bush, particularly under the trees, in a valley, near a river (!), is not at all a wise course of procedure."

"Not at all a wise course of procedure"! The voyage had been sheer madness from beginning to end and Pound's fears for the future were only too glumly well-founded.

Baird, however, was only cautiously discouraged, if at all. "Before the journey was over I began myself to find my first optimism more than a little diminished, but there was nothing for it but to see the thing through. I took a small shop at 166 Lupus Street and there, in due course, the mango chutney and other delicacies arrived. I visited Mark Lane and Mincing Lane trying to find a market for my wares. Nobody wanted mango chutney and nobody appeared to want guava jelly; the quality was not up to

standard. Finally, in desperation, I sold the whole stock to a sausage maker to mix up with the other material which went into his sausages. He gave me £15 for the lot. From what I gathered, so long as the stuff was not absolutely poisonous it was quite acceptable. The trouble now was to find some means of making money."

Baird's "home-life" at this stage was also not without its difficulties and discomforts. As soon as he arrived in London he went straight to a Bloomsbury lodging-house. "This," he says acidly, "opened my eyes to what Bloomsbury boarding-houses could be."

The charges were from twenty-five shillings upwards for partial board, with full board on Sundays. Partial board meant breakfast and dinner throughout the week, and breakfast, lunch and supper on Sundays. Baird flatly describes it as "an appalling place." Wishing to cut down expenses, he obtained one of the cheapest rooms at twenty-five shillings, a wretched attic with one little barred window with broken glass, a bare floor, a rickety bed and some dilapidated blankets. "I will say, however," says Baird, severely, "that the blankets were clean."

For breakfast, ham and bread and butter were provided —"occasionally the ham was joined by an egg of doubtful quality." Dinner consisted of dishwater soup and watery stew with mashed potato, followed by a pudding that sternly defied all but the most iron digestions. What a change from the mangoes and the stinging, piquant peppers of the West Indies, the long, iced drinks and the abundant choice of fresh fruit! This dingy lodging appals the heart, even related at second-hand, and it must have looked to Baird like some grey unwashed circle in hell, too unimportant to be mentioned by Dante. The inhabitants were appropriate to some such fancy. They were "down-and-out commercial travellers, wretched elderly women, some eking out an existence on small pensions, business women, milliners and stenographers, all ageing and hanging on in constant fear of the sack." What cold terror this collection must have struck into the heart of Baird with his

way in life still to be made; no wonder he was miserable.

One more glimpse of this seedy Gehenna and then Baird, despite unpropitious beginnings, will be on the way to a moderate financial success, sufficient to save him from the bitterness of the lot of his landlady's "regulars."

"I would not have stayed at all but for 'Mephy,' who seemed to find the place very convenient and cheap and got on well there. Poor 'Mephy' was also cutting down expenses and had a bed in a disused wash-house, with stone floor and original wash-tub. The wash-tub still had the hot and cold taps, so that at least he had the advantage of a supply of hot water. It was a dreadful place to sleep in, however; very damp and cold, and I think contributed to give him the rheumatism from which he suffered."

Baird's capital during this interlude, "in spite of extreme economy" (he says, pathetically), had diminished to approximately £200. Before it vanished altogether he must find a substitute for jam and socks. He tried answering advertisements in *The Times* under "Business Opportunities." These opportunities might have been bargains, but it seemed to him that he got more than he bargained for. He was entertained by the spectacle of the poor swindler trying to turn a dishonest penny in a pharisaic world.

"All sorts of queer characters appeared at my lodgings, with schemes as queer as themselves. The majority of the business opportunities were one form or another of patent medicines. One man, however, gave me some trouble. He had a scheme for buying up surplus Army stock and he wanted me to put up £1,000 to buy an enormous quantity of galvanized-iron buckets which, according to him, were going at an absolute throw-away price. These buckets were to be sold from street barrows, and the barrow trade was to be organized by a friend of his who, he said, was known as the 'King of the Barrows' and had the whole trade at his finger-tips. He was an enormous, villainous-looking hooligan in a red muffler and very much the worse for drink. When I showed some hesitancy in parting with £1,000 on the spot, the two gentlemen became very obstreperous and

I had some difficulty in getting them to leave the house. Not one single reasonable proposition resulted from this effort."

Conserves seem to have exerted a fascination on Baird the business man. After the marmalade and tamarinds, his next venture was Australian honey. He bought two tons of this down in the docks at a give-away price and did a brisk business from Lupus Street, selling it in twenty-eight-pound tins.

Baird haunted Mark Lane looking for further such deals. He gives the natural history of the Mark Lane "scorpions" who trade in such "bargains." They had many unpleasant tricks, but their favourite was to get money in advance, to clinch some wonderful bargain, and then vanish. Other "scorpions" took jobs as travellers, and, not content with offering your goods at absurd prices, promised the customers enormous discounts. They had only one more thing to do: call when the goods were delivered, collect the cash and again vanish.

Whether they vanished with any of Baird's takings from the honey deal he omits to say. But scorpions' bites are known to rankle, and he may not have felt inclined to exhibit himself in the role of victim.

But the tide was on the turn—the big clean-up in soap was almost at hand! But first . . .

"Harold Pound again appeared on the scene and introduced me to his uncle, who owned a little horticultural business which included a small shop and large storage accommodation. He wanted to get rid of it and, finally, I bought it from him for, I think it was, £100 cash. This business was just what I wanted. It gave me storage accommodation in plenty and a certain amount of over-the-counter trade. The old customers still continued to come and I did my best to sell them fertilizers in the midst of the honey business. The place was most unhealthy, the office being built under a railway bridge and the walls running with damp. The business, however, was paying, and I had a number of other schemes on hand, including a corner in coir-fibre dust, when my old enemy laid me low again

and I found myself in bed with my usual severe cold.

"In bed I remained for several weeks, the business meanwhile going to bits. In this state a visitor arrived from Trinidad—a friend of Pound's. He was anxious to start up in London and offered to buy from me a half interest in my little business. I willingly agreed, and while I was in bed he took charge. My cold did not get better and, finally, I went to Buxton on the doctor's advice. My partner then bought me out of the business, paying me £100 and £200 in shares in an oil company." (Baird still had them when he died. They were, and remain, unsaleable.) "Fortunately, I had insured myself at the beginning of the year against illness, and all the time I was in Buxton—in fact, all the time I was ill—I was paid by the insurance company £6 a week. I was ill for nearly six months, but finally recovered sufficiently to go back to London.

"So once more I found myself with no business, and this time with little more than £100 in my pocket. I settled in lodgings in Pembroke Crescent and commenced looking through the papers for some opening."

This time his eye lighted on an advertisement in *The Grocer* offering two tons of resin soap "at an amazingly low price," he notes knowledgeably.

This soap proved to be rubbish, but it led to something more profitable, if only slightly less rubbishy. This was "a pale, yellow, double-wrapped soap" supplied by a firm recommended to Baird during the resin-soap affair. Baird goes closely into the details of how he organized his selling, which was much on the lines of any one-man business, but he shows a certain guilty conscience over the quality of the soap, which he began to sell in large quantities. He very honestly quotes the pithy comment of an unsatisfied customer: "Water held together by caustic soda!" "But what could they expect at the price?" he inquires, and leaves commercial morality to answer for itself.

Success is less funny and perhaps less interesting than failure on many occasions, at least to the looker-on. Only two stories are worth quoting from this period. The first

is the "strong boy story" which is full of Dickensian exaggeration:

"I inserted an advertisement in an evening paper—'Strong boy wanted to help in warehouse.' The day after the advertisement appeared I got out at Mark Lane Station and as I approached Water Lane was surprised to see what appeared to be a riot, with two policemen trying to restore order. The whole of Water Lane, up to its junction with Mark Lane, was one seething mass of 'strong boys,' come from all parts of the land to 'help in warehouse.' I slipped into the office by a back entrance, pushed my way through the 'strong boys' who blocked the passage and banged and pushed at the locked door. It was opened to me by a white-faced, thoroughly terrified Mr. Young. We engaged the boy at the head of the queue, put a large notice on the door, 'Job filled,' locked the door and remained in a state of siege. For days after 'strong boys' hung round the Water Lane office. Glowering and muttering, they banged at the locked door and threatened to break in. 'Strong boys' waylaid us in the passages and in the streets as we scuttled in and out."

This story shows signs of literary composition, like the Port of Spain "grasshopper." The model seems to be Dickens. Would Baird, with his rich and individual way of looking at things, have become a good writer if the cards had been shuffled somewhat differently in his early life?

The other story concerns the lady who washed her child's posterior with "Baird's Speedy Cleaner" and invited him to glance at his cowardly handiwork! "It looked like boiled lobster," he admits, in fair and judicial mood, "but I said: 'Madam, Baird's Speedy Cleaner is for flushing floors, not babies' bottoms!'"

Baird's Speedy Cleaner had been speediest in making money. A rival "Rapid Washer" appeared on the market and Baird found himself at the Café Royal one night discussing a merger with a "jovial young Irishman" named Hutchinson.

The end of the matter is too much of studied anticlimax to be told in any but Baird's own words:

"We sat long into the night, drinking old brandy and settling the last details of our merger. I felt ill when he saw me off at Leicester Square Tube Station. Next morning I had a high temperature and a terrific cold. I had left my old lodgings and was staying in a cheap residential hotel (bed and breakfast, full board Sunday, thirty shillings). My bedroom was a converted conservatory and bitterly cold. I got rapidly worse. Hutchinson appeared with a bottle of eau-de-Cologne and was thoroughly alarmed at my state. The doctor was called in and I got steadily worse. He, too, became concerned and told me that I must get out of London at once, or he would not answer for my recovery.

" 'Mephy' was in Hastings and next day I packed my bag and set off to join him. The business had prospered and I had fulfilled a long-held ambition by forming it into a limited company with £2,000 authorized capital. My co-directors, two young business men to whom Pound had introduced me, bought out my shares, leaving me with a sum of roughly £200."

So Baird was back to his couple of hundred pounds, despite the fact that he had participated in a highly successful business venture. But ill-health had robbed him of success.

The embryonic stage was over and he was now to turn to something that really gripped the fibres of his being. He had always been interested in any new thing—evidenced by his pioneer aeroplane flight and his attempt to make diamonds. He had been side-tracked into trying to make money, for he did not despise money—why should fools have all the good things? It is plain his intellectual curiosity had never been dimmed by mere money-making. Again and again Destiny had returned him to base.

The next time he left it would be to discover the possibilities of television. For Baird had this virtue: whenever he started looking for a thing, he never gave up without a struggle. His failures were not failures of himself, but of his materials. Once he found himself on the track of his life's work he would never give in.

CHAPTER FOUR

THE BATTLE OF HASTINGS

IT WAS AT Hastings that Baird first achieved television. Here he arrived in 1923, "coughing and choking" and generally in a bad state of health. He was so thin "as to be almost transparent." It was one thing to get to Hastings in the sun and another to be able to sustain himself.

He had little money, about £200, and after the disaster of the soap, socks and jam his prospects were, to say the least, nebulous.

Baird surveyed the situation and came to this prosaic conclusion: *"I must invent something."*

At first his schemes were as abortive as ever. There was a glass safety-razor which would not rust or tarnish. The blade was also made of glass, but it was not a success. After cutting himself rather badly, Baird decided to try pneumatic soles for shoes, his idea being that walkers could have the same advantages as a car with its pneumatic tyres. Inside a pair of very large boots he put two partly inflated balloons, then carefully inserted his feet, laced up the boots and set off on an experimental hike. He "walked a hundred yards in a succession of drunken and uncontrollable lurches, followed by a few delighted urchins." Then the demonstration was brought to an abrupt end by one of the "tyres" bursting!

It was then that his mind went back to his early days when he had first thought of the possibility of sending pictures by wireless.

Here, at Hastings, the sea air soothed his tortured bronchial tubes and he was able to write categorically in later years: "Hastings saved my life."

The ever-faithful Robertson—"Mephy"—was waiting for him at the station. This good fellow had arranged for Baird to share his lodgings at Walton Crescent.

One day Baird went for a long walk over the cliffs to Fairlight Glen and it was during this historic excursion that he conceived the idea that was to occupy him for the rest of his life. It appears that the possibilities of television, which had been "in the air" for many years, had previously attracted him and he had made tentative experiments, no trace of which now remains. There is no clue even to the date of these early gropings, but they seem to have been a mere toying with a theme, such as all inventors indulge in from time to time with ideas which they do not necessarily intend to develop. Such as they were, however, they touched off the powder train of Baird's imagination in those bleak, early days at Hastings and prepared him for his great creative effort.

His mind went back to that early dabbling. Might there not be something in television now? In earlier days his difficulty had been to find a means of amplifying the infinitesimally small current from a selenium cell. Such an amplifier was now available, thanks to Fleming and De Forrest. Why not try again? The more he thought of it the easier it seemed. He figured out a complete system and went back to Walton Crescent filled with new hope. Over the raisin pudding he broke the news to "Mephy," announcing with pomp and ceremony that he had invented a means of seeing by wireless.

"Oh," said "Mephy." "I hope that doesn't mean you are going to become one of those wireless nitwits. Far better keep to soap. You can't afford to play about, you know!"

For all that, the faithful "Mephy" was very helpful. Operations began with the purchase of a tea chest, an old hat-box, some darning needles, a bull's-eye lens from a local cycle shop and a plentiful supply of sealing wax and glue. The contraption grew and filled Baird's bedroom. Electric batteries were added to it. Wireless valves and transformers appeared.

"At last, to my great joy, I was able to show the shadow of a little cross transmitted over a few feet!"

From this moment Baird was "sold" on television. But for all his mixture of imagination and business practicality, it was to be a long time before the world would have faith in his beliefs. The first "televisor" had the ingenuity of Heath Robinson and a touch of Robinson Crusoe. Baird described it as having the saving grace of simplicity. The components included a circular cardboard disk—cut out of the hat-box—in which he pierced two spirals of small holes with the scissors; a darning needle served as a spindle, and bobbins supplied the means of revolving the disk. On one side a powerful electric lamp shone through the bull's-eye lens on to a little cardboard cross, whose shadow was cast on to the disk. To one side of the cardboard disk was another of tin (which had been cut out with the long-suffering scissors!). This had a large number of little serrations round its edge, was mounted on the spindle of a small but high-speed electric-fan motor, and stood in the path of light.

On the other side of the cardboard disk was a selenium cell. The interrupted light, falling on to this cell, generated a current which went to a neon lamp fixed behind the same disk but at the opposite edge from the cell, which was connected to the lamp through an amplifier. The lamp glowed when the cell was illuminated and went out when it was in the shade, so that when the apparatus revolved it was possible to see on one half of the disk the shadow of the cross on the other half, two feet away.

Baird was elated. A start had been made and he felt he was on the right track. Money was draining away fast, however, so he gave a demonstration to the Press, hoping to attract capital. The whole thing was embryonic, but he managed to get a mention in the *Daily News*. This editorial reference had an unforeseen effect. A far-sighted friend of Baird's father saw the *Daily News* paragraph and advised him that his erratic son's work might well develop into something of world-wide importance. This so impressed

the old man that he sent him £50 unasked. So Baird was able to ease the tension which had arisen at his "digs," due to using his bedroom as a laboratory, by removing the apparatus to a small room above a shop in the Queen's Arcade. The rent of this room was five shillings a week.

In this room Baird spent some of the happiest hours of his life. The apparatus grew into a complicated network of wires, batteries, lamp-bulbs and spinning disks, but the results were improving all the time. He could transmit shadows of letters and simple outlines from one machine to another.

But again money began to run low. So he advertised in *The Times.*

This advertisement is before me now. It was inserted in the "Personal" column of 27 June, 1923:

> "Seeing by Wireless—Inventor of apparatus wishes to hear from someone who will assist (not financially) in making working models. Write Box . . . *The Times,* E.C.4."

Baird thought it better not to ask for money directly, and afterwards maintained that this was the wiser course.

He received a reply from Mr. Odhams of Odhams Press, and also seems to be under the impression that one of the replies was from Will Day, a successful man in the wireless and cinema businesses. But, according to my researches, it appears that Day's interest was aroused by an article in the *Kinematograph Weekly* on 3 April, 1924, some nine months later. This article was by F. H. Robinson and was entitled: "The Radio Kinema." I believe it to be one of the earliest accounts of the Baird experiments.

The confusion seems to have arisen in Baird's own mind because F. H. Robinson was one of the two men whom Mr. Odhams sent down to Hastings to investigate his claims. The other was Captain A. G. D. West, at that time Chief Research Engineer of the B.B.C. and, much later, a member of Baird's company. Robinson's article seems to have been a later result of this visit. Both the experts were

favourably impressed, but thought that he had a long way to go. They appear to have been doubtful about the practical uses of a device which would only send shadows.

Odhams, however, whom Baird went to see in London, treated the struggling inventor very understandingly, giving him tea and treating him with respect and consideration which were balm to his soul, used as he had become to being treated as a "crank."

Baird's account of this interview is very interesting since it revealed Odhams as being not only a sound business man but a man of vision:

"Well now, Mr. Odhams, what demonstration would convince you?" asked Baird.

"If you could put a machine in the room next door," replied the publisher, "seat someone in front of it, and then on a screen in this room show me his *face*—not a shadow, but a *face*—I am certain you would get all the money you want. I am anxious to help—but what can we do with a device that can only send shadows?"

Baird was willing at this time to sell a fifth of his entire rights for a paltry hundred pounds. And that hundred pounds, you must understand, was not for himself, but merely to pay for further essential work!

I have been fortunate enough to get Mr. Odhams' own account of those early negotiations and I quote this in order to show something of the difficulties with which the struggling inventor was beset.

Mr. Odhams writes:

"I have pleasure in recalling the story of my pleasant relations with Mr. Baird. There appeared in *The Times* an advertisement, headed 'Seeing by Wireless,' inviting co-operation in the then unknown science of Television. The world had just been startled by the practical uses of broadcast sound: what if here was the counterpart—broadcast seeing? I replied to the advertisement the same day and on the 14th was rung up from Hastings by Mr. Baird who wanted to call and see me at an early date. An appointment was made for the 16th, and as the unexpected result

of a long general talk Mr. Baird wrote me on the following day:

" 'Dear Mr. Odhams,—I have been considering our conversation of yesterday, and will be very pleased to let you have a 20 per cent interest in my Television invention, and its developments, in consideration of your paying the cost of experimental apparatus—not exceeding £100 (one hundred pounds)—and giving introductions likely to prove advantageous.

" 'You will understand that I am anxious to have a decision as early as possible—but I can leave the option open for seven days.

" 'I enclose another cutting giving some further information (the technical details are not accurate).

" 'Trusting the above will be satisfactory.

" 'Yours faithfully,

" 'JOHN L. BAIRD.'

"Another appointment was made for the 18th and I was able to have with me Mr. West, the Assistant Chief Engineer of the British Broadcasting Company, then a comparatively young concern. The interview must have taken at least an hour, I being the silent listener to much technical talk. The only thing I remember understanding was that the enormous difference in the waves of light and for sound constituted the difficulty of Television as compared with Broadcasting.

"I had another visit from Mr. Baird a few days later, and he told me that he was hung up for various apparatus. These, by the courtesy of Mr. West, I was able to obtain, viz.: three D.E.R. valves, three L.S.5 power valves, two R.1 intervalve transformers, one 3-valve note amplifier.

" 'I hope,' wrote Mr. West in sending them, 'this will be sufficient for Mr. Baird's requirements, but if he requires any more I hope you will ring me up and I might be able to send round this afternoon further apparatus.'

"Thus equipped, Mr. Baird, who had been delayed by a bad bout of influenza, advised me later that the apparatus was working properly, and a few days after Mr.

West went down to Hastings to see it. As far as I can recollect, he reported to me that undoubtedly the claims made for Television were scientifically sound but that it would be a considerable time before they would be likely to become commercially available. The same view was taken by Mr. F. H. Robinson, the Editor of *The Broadcaster*, some months later after a visit to Hastings at my suggestion.

"He said: 'His claims were soundly substantiated by the experiments which I saw. . . . Mr. Baird's invention is, of course, extremely wonderful, but at present I cannot see anything spectacular in it.'

"With this expert evidence before me, I had to consider the desirability of taking or refusing the handsome offer made to me by Mr. Baird in his original letter, and I decided not to avail myself of it because, having already put in over fifty years of strenuous work, I felt it would be unwise for me to embark on *what would evidently be a long-drawn-out period of further anxious toil.* W. J. B. ODHAMS."

The italics are mine. How right Mr. Odhams was! But other members of his firm displayed an early interest in the Baird invention. W. Surrey Dane, now joint managing director at Odhams, was at that time, as he told me, small fry. He was intensely interested in Baird and his miracle. John Dunbar, editorial chief, equally kept abreast of the new invention and gave Baird much-needed publicity and encouragement.

So there it was. Baird was confident that he could obtain the required results, but money was needed for such development. Who would give the necessary help?

The novelist, William le Queux, who lived in Hastings, was willing and eager to help and had attended various demonstrations, but unfortunately all his money was tied up in investments in Switzerland. But the visit of Odhams' experts was about to pay an indirect dividend. Robinson wrote his article in the *Kinematograph Weekly*, Will Day saw it and, without any argument or delay, bought a one-

third interest in Baird's invention for £200. This just about saved the ship.

Baird has told a little tale about this which, while we must not let it reflect on Mr. Day, is too amusing not to print. It appears that Day's solicitor—"an ancient gentleman in a dirty collar"—made Baird sign a document whereby he afterwards found he had bound himself to pay all expenses in developing the invention and the costs of taking out patents in every country in the world. Fortunately the document was later found not to be binding. "I did not read it at the time," said Baird. "I would indeed have signed away my immortal soul for £200 and I was not going to quibble over the terms of a legal document."

Anyone more like an innocent victim than Baird in such transactions as these could not be imagined. He needed money and was not interested in whining about "exploitation." He hurried back to Hastings in jubilant mood and he and "Mephy" dined at Molinari's to celebrate the great occasion. The next day, being "in the money," he bought several hundred flashlamp batteries and began to approach the realization of his dreams of a two-thousand-volt power-supply by joining a sufficient number of dry batteries end to end. This was a formidable task; no doubt his back ached after a few hours at it and he might have remembered it afterwards as one of the most comical jobs he ever did, except for the fact that it very nearly put an end to the history of the father of Television.

He had finished the joining-up and was connecting the supply to some part of the wiring when his attention wandered and he received the full force of the two thousand volts through his hands. It was amply sufficient to cause death, but he was lucky; for a few seconds he was twisted into a knot in helpless agony, and then, fortunately, fell backwards, breaking the circuit and saving his life.

Baird told me he would never forget the agony of those few seconds. Electrocution must be a terrible death. The noise of his fall and the flash of light collected a small crowd and next day the newspapers came out with lurid

stories headed: "Inventor pinned to the ground by short-circuit" and "Serious Explosion in Hastings Laboratory."

Mr. Twigg, from whom Baird rented his "laboratory," must have been scandalized out of his wits when he opened his morning paper and read these headlines. The artist and the inventor are alike suspect to the normal householder since, like the thistledown, they are without visible means of support. The sequel is no surprise. The landlord sent Baird a sharp note saying that his experiments, which were liable to damage his property, must cease forthwith or Baird must instantly vacate the premises. He ignored this letter entirely. Then, one afternoon, while working in his laboratory where he could be seen by anyone standing in the Arcade, he was astonished and very much annoyed to find Mr. Twigg standing there waving his arms and shouting at him.

"What are you doing there?" demanded Twigg. "I told you I could have no further experiments carried out on my premises. You must stop this nonsense at once!"

In turn Baird became annoyed and went downstairs with the intention of putting the landlord in his place. Loftily he said: "This is scarcely the way to carry on business; I am paying you rent for these premises and I have a perfect right to use them without you standing there bawling and shouting at me."

By this time a small crowd had collected. Baird did not care to have a scene, so he turned his back on Twigg and walked away with all the dignity he could muster. But he was mortified to hear a roar of laughter from the crowd. Later he discovered the reason: in thrusting his hands violently into his trouser pockets he had strained this dilapidated garment and torn a large rent in the seat!

In due course the outraged landlord won the day. Baird received a letter from Twigg's solicitors instructing him to go.

He decided to quit Hastings, since it was no use being in a healthy place if one couldn't get on with one's work. Will Day had found suitable premises in a little attic at 23 Frith

Street in London and to this address he now moved.

However, Baird lived to have his little revenge and to be the cause of one more piece of damage to Mr. Twigg's premises. This was the cutting away of the front of sundry bricks on the front wall over Mr. Twigg's shop by the Hastings Council, so that a plaque could be inserted bearing the following legend:

"Television. First demonstrated by John Logie Baird from experiments started here in 1924."

Baird was present at the unveiling of the plaque on 7 November, 1929, and he described it as "quite a ceremony." It must have been with mixed feelings that he looked up once more at the window where on many long evenings he had worked in full view of the Arcade shoppers. Anyhow, the crowd that collected on this occasion were certainly *with* him and not against him.

When Baird arrived in London he took lodgings in Ealing. He must have been a pretty good judge of lodgings by this time. He paid eight shillings a week for the room and cooked his own food on a gas ring. His mood now was quite different from that of the Bloomsbury days when he felt himself to be a member of a depressed class. The sprightly Baird of the Port of Spain grasshopper was well in evidence when he described the small entertainments provided in his new home. For instance, he was very taken with a framed poem on the wall:

"Short was the traveller's stay,
She came but as a guest,
She tasted life then fled away,
To everlasting rest.
—Elizabeth Brown passed away, aged three months."

Also on the wall was a photograph of an infant in a cot—evidently the dead body of little Elizabeth Brown. On the table were a number of books by Dickens, Silas Hocking and Annie Swan, also a book of Press cuttings from *Tit-Bits* and *Answers* titled "Jokes and Teasers from Various Columns."

The first night Baird stayed there the door handle of the bedroom was very slowly and quietly turned and the door began to open. He watched, spellbound. The door opened about two inches and then stopped; there was the sound of someone moving stealthily away, and then complete silence. Nothing more happened.

Every night the same phenomenon occurred. Baird later discovered that it was the landlady's little boy who slept next door and suffered from "night fears." He wanted to have the door open for company. Every night, as long as Baird stayed there, this pathetic little ceremony took place.

Baird seemed to have a knack of getting into Dickensian situations, meeting Dickensian people. What could be funnier than his one-minute interview with Mr. Gray of the Marconi Company? He called at Marconi House and sent in his name—"Mr. Baird from Helensburgh." After half an hour in the waiting-room he was shown into a large office where an elderly man sat behind a large, important-looking desk.

"Good morning," said Baird.

"Good morning," said Mr. Gray.

"Are you interested in television?"

"Not in the slightest degree. No interest whatsoever."

Exit Baird!

His comment on this shows his usual lazy sarcasm: "It was as if I had asked if he was interested in brothels."

Gray's was typical of the general attitude to television in 1925. It was regarded as a wild inventor's hoax, something on a par with a perpetual-motion machine. Television could never be realized, it was said, unless some hitherto undreamed-of discoveries were made. And nothing of the sort was in sight. That was the view held by the Marconi experts and men of science generally. The view of the Press and public was somewhat similar, and Baird tells a story from this time which reflects credit on the politeness of newspapermen while denying them any gift of second sight—or was it merely insight that was needed?

Baird's story goes that he called to see the editor of the

Daily Express and as usual was fobbed-off with some underling. He opened the conversation with his customary formula: "Are you interested in a machine for television? That is, seeing by wireless?"

"*Seeing by wireless*?" was the astonished echo.

"Yes," replied Baird confidently, "an apparatus that will let you see people who are being broadcast or are speaking on the telephone."

There was a pregnant pause while the journalist pulled himself together. Then he said: "Astounding! Now look, I shall shortly be busy at a meeting, but I'll get one of my colleagues to take the story. Very interesting," he added, as he vanished through the door.

A few moments later a heavily built reporter was listening to Baird with a great show of interest and sympathy. Politely he assured Baird that his was a first-class story and he advised him to be sure and get the next day's issue of the paper. It would have a big show on the front page.

Nothing at all appeared, and it was many years later that Baird got the "inside story" from the heavily built reporter. It appears that on the day he called at the newspaper office, the reporter was sitting in the Press room when an assistant editor dashed in and said: "For God's sake go down to reception and get rid of a lunatic who's down there! He says he's got *a machine for seeing by wireless*. Watch him; he may have a razor on him!"

Baird continued to work away in his Frith Street attic, transmitting crude outlines of letters and figures and anxiously watching the cash getting less and less.

Still, he had a stroke of luck about this time. One day he had two visitors. One was Mr. Gordon Selfridge, junior, and the other had visited Baird in Hastings and had been interested in his work.

This early convert had mentioned it to Selfridge, who was on the look-out for an attraction for his Birthday Week celebrations. Selfridge thought that television would be a startling exhibit.

This interview resulted in Baird being offered twenty

pounds a week for three weeks to give three shows a day to the public in Selfridge's store. He accepted the offer and spent a very trying three weeks demonstrating to long queues of spectators, most of them ordinary shoppers, but sprinkled with scientists who had come especially to see the show. By looking down a funnel arrangement they were able to see outlines of shapes transmitted a few yards by a crude wireless transmitter. The strain of giving three shows a day on this rickety apparatus was too much for Baird and he was ill for several weeks afterwards. The apparatus went back to Frith Street and, with a little more money to go on with, the research continued.

It was an anxious time. The money problem soon became pressing again, and Baird, controlling his natural scepticism, advertised for a company promoter. In this connexion he tells an entertaining tale of £25 and two double whiskies and an important advantage which doctors gained from being on the Medical Register that year.

It seems that a Mr. B. had a proposition whereby all that Baird had to do in order to make a fortune was to advance £25 for expenses, whereupon Mr. B. would send a letter to all the doctors on the Register explaining the wonderful possibilities of the invention and enclosing a postcard which stated: "If you are interested please return this postcard and my representative will call." Baird was not prepared to pay £25, but they went together to have the letters printed. In due course three thousand were posted. Six replies were received. B. called on the six senders and collected £75. The expenses he claimed amounted to well over this figure and he expressed a desire to retain the lot. However, all was amicably settled for £25 and two double whiskies!

Fortunately at this time Baird had a windfall in the shape of £500 put up by some cousins named Inglis. "Television Limited is in funds!" he exulted.

Baird feelingly described to me the imagination and enterprise of two heads of business firms who helped him at this time. The food-canners who supplied Scott's expedi-

tion with supplies free of charge had their parallel in Baird's case. Hart Accumulators and General Electric have reason to be proud of the way they helped him during those early days.

Shortly after the Selfridge show he was visited at Frith Street by a representative of Hart Accumulators. Did Baird want any batteries? He certainly did; he was very short of them. After they discussed his requirements, it appeared that the cost would be in the region of £200—as against the £10 that Baird was in a position to spend!

The representative departed and Baird thought that this was the end of the matter. But no. A few days later he was astonished to receive a letter from the managing director of Hart's saying that the company were desirous of encouraging his pioneer work and had decided to make him a present of £200-worth of batteries. "It was a bright spot in the darkness of anxious days," wrote Baird.

Shortly after this the G.E.C. gave him a present of £200-worth of valves. These gifts were vitally welcome. In due course the enterprise of the donors was rewarded. The Baird Company subsequently bought thousands of pounds worth of valves and batteries from them. "But for hard-headed business men to give £200 of goods to a dilapidated and penniless crank in a garret is a phenomenon worth recording," was Baird's heartfelt comment.

CHAPTER FIVE

BAIRD "STEALS A MARCH"

IT WAS NOT until Baird's Scottish relatives had supplied him with generous funds that he had any real chance to develop his original invention.

Up to that point he had done almost everything for himself. Then Fate took a hand, and presently Captain Oliver George Hutchinson, his former competitor and one-time ally in the soap business, joined him as business partner in television.

Hutchinson, as Ian Anderson makes clear in his letter to me reproduced in the next chapter, took a valiant part in the early struggle.

As Irish as Baird was Scottish, he, too, was a dreamer, impetuous upon occasions, but with more business experience. When he decided to back television he remembered, no doubt, that Baird was not only an ingenious inventor but also a man with some commercial experience. He came to look upon Baird as a collector looks on, and takes care of, a valuable but frail object—he would not trust Baird to cross the street when he was with him—but he certainly did not consider him "a one-track crackpot," unable to manage his own affairs. Baird's resilience and adaptability must have impressed him. Hutchinson himself had faith, vigour and determination. He should have been the ideal associate for Baird, but they were temperamentally incompatible and, hard as they worked together in the early days, they became increasingly estranged from one another once Baird Television had been floated in a big way.

Even before that they were frequently at loggerheads because of the Irishman's over-cautious outlook. "Hutch"

never wanted to run before he could walk; Baird was all for taking chances.

Having by this time proved that he could transmit visual images by means of his invention, Baird was naturally anxious to publish his results to the world, to "get in first." He was afraid that some competitor might otherwise jump his claim; but Hutchinson demurred. What he feared was the possibility that a rival on reading about Baird's work would copy it and get the backing of one of the big wireless companies. Something of that kind, of course, was bound to happen sooner or later; but it is difficult to see how Baird could have made any progress at all without getting his claims authoritatively tested. It was the old dilemma of obscurity without entanglements or publicity with all its attendant risks. Baird felt that these risks had to be taken.

A compromise between the two points of view was reached by inviting the members of the Royal Institution to a demonstration at which *The Times* alone was to represent the Press. It was felt that by this means the Baird system could be introduced in a dignified way and without attracting idea stealers.

So it was. On the evening of Friday, 27 January, 1926, more than forty members of the Royal Institution, most of them distinguished scientists, arrived at Soho in full evening dress, some of them accompanied by their wives.

"This gorgeous gathering," wrote Baird, "found that they were expected to climb three flights of narrow stone stairs and then to stand in a narrow, draughty passage, while batches of six at a time were brought into the two tiny attic rooms which formed my laboratory."

The demonstration had its moments. One old gentleman, whom Baird described with unconscious humour as "a thorough sportsman," got his long white beard blown into the wheel and "escaped with the loss of a certain amount of hair." Baird appears to have admired the gameness with which this martyr to science insisted on continuing with the experiment, and duly had his face transmitted to the televisor. The demonstration was an unqualified success.

What must have been Baird's joy to hear a fellow scientist, who had also struggled with the problems of television, make the *sotto voce* comment: "Baird's got it! The rest is merely a matter of £ s. d." He had the right idea; it had become a question of "raising the wind."

The Times article next day burst the dam. Dozens of pressmen arrived at Frith Street. Perhaps among them was the writer who had been warned, not long before, that Baird was a dangerous lunatic, who might have a razor concealed about his person!

These newspapermen were courteously received and told only what Baird and Hutchinson chose to tell them. But a series of further demonstrations was given for the benefit of the technical and general newspapers. Interested scientists also made private appointments, among them being Dr. Archibald Russell, who as a Past President of the General Electric Company and Principal of Faraday House was able to speak with authority and did so in Baird's favour.

Accounts by eye-witnesses appeared in scientific journals and the war was on! Baird's summary of the types of objection which were bound to be made was masterly: "I knew that I had stolen a march on the scientific world and that every attempt would be made to ignore my existence, to cast doubts on the authenticity of my demonstrations and to make use of every method of implication and innuendo to belittle my work. Either it was not television, or it had been done before, and in any case it was of no consequence. I was a vulgar and ignorant fellow of whom no one had ever heard and I could not be taken seriously. Nevertheless, I was showing television and no one else could."

Baird certainly was showing television; and *how* he showed it! The newspapers of 1926 published innumerable accounts of these shows. Indeed, the old gentleman who lost part of his venerable beard must have had the consolation of knowing that it was sacrificed on an historic occasion. If the hairs of the beard were not treasured like those of the Prophet, it could only have been because they

were swept away by Baird's charwoman the next morning.

John was contemptuous of those who claimed in later years to have anticipated him, but he was fully aware that other research workers were making forward strides in 1926. He declared positively, however, that no public demonstration of any rival system of television was ever made until April of 1927, more than a year after he had proved the success of his own to the Royal Institution.

In fact, the American Telegraph and Telephone Company did stage a spectacular show—provocatively announced as "Television At Last!"—in that year and, as we shall see, it came near to wrecking the chances of the first Baird Company flotation.

Baird was never able to swallow any attempt to steal his thunder. In later years he wrote: "Even after the lapse of time, at an age when such things should not matter, I feel my anger rise again against those who sought to brush my work aside. They did not, however, find me easy to crush. Years of fierce struggle to keep alive had certainly taught me to fight and I kept kicking and shouting, sometimes, I am afraid, paying little attention to dignity or reticence in the publicity methods I found it necessary to employ." He made no bones about it; in this world one had to shout one's achievements from the housetops.

Some of his publicity methods, however, "boomeranged" on him by alienating serious scientists. He did not care. He recalled such headlines as "Magic in a Garret" and "Young Scotsman's Magic Eye," and it is not surprising that these flamboyant exaggerations tended to increase the scepticism of those scientists who had never seen an actual demonstration. They suspected the apparatus with which demonstrations were performed. Baird in his posthumous notes told an entertaining story of a distinguished scientist who had called for a demonstration and whom Baird had to leave for a few moments alone in the laboratory. "When I came back," he wrote, "I was surprised to find this venerable old gentleman crawling about under the apparatus. He was a little embarrassed but pointed out that, as he had

to make a report, it was his duty to satisfy himself that there was no trickery."

Trickery! Some people accused Baird of hiding a boy in a box behind the receiver. For such charges to have had any basis in fact the inventor would have had to be a greater magician than Maskelyne himself. But they came mainly, as might have been expected, from people who had not even troubled to see for themselves what Baird really could do. More and more demonstrations, however, wore down all incredulity.

In order to arrive at a fair estimate of Baird's claim to priority in the field of practical television it is necessary to refer briefly to one or two of the essential principles upon which his system was based—principles which became the subject of legitimate criticism among some engineers and fellow scientists.

Baird's picture was made up of thirty strips. He found this to be the minimum necessary to transmit a clearly recognizable image of the human face. The picture-shape decided on after countless experiments was seven inches high by three inches wide, something quite different, of course, from the modern cathode-ray-tube screen. "Flicker," a trouble even with modern television receivers, was naturally more pronounced in the early Baird televisor. The formula was: "More flicker, more detail. Less flicker, less detail"; so Baird compromised with a fair amount of both.

The first television image ever photographed was taken by Lafayette, the exposure being of three and a half minutes. The willing sitter was Hutchinson. He may have had a stiff neck afterwards, for his head was clamped in a vice to prevent any movement which would have blurred the finished result. Nevertheless, the photograph made history.

For here was proof! Baird now began to receive valuable scientific support. Professor Andrade wrote a very fair account of a demonstration for the *Encyclopaedia Britannica*. Unfortunately, in a later edition, Dr. Ives, employed by the American Telegraph and Telephone Company,

devoted *his* article on television to the work of the A.T. and T. and completely ignored Baird's work.

This incensed John and, as I had by then joined forces with him, he came to me about it. I promised to do what I could to obtain a rectification. Much correspondence followed with the editor of the "Britannica." Finally I invited her—Mrs. Law, a charming woman—to meet Baird at lunch. We had an interesting chat, showed her Baird's work, and she very kindly remedied the injustice.

But that was some time after the early days in Frith Street. There the one way to break down opposition—apart from using the incomparable weapon of publicity—lay in the personal demonstrations. Several prominent public men and women were, indeed, induced to visit the laboratory. The support of scientists was invaluable, but we were fighting a *political* battle—so to the politicians we went.

To most people the science of television is exclusively concerned with entertainment. Baird, however, was devoting his genius to several other of its aspects. He began to experiment in the use of infra-red or ultra-violet rays in place of light, hoping by this means to project an image in complete darkness. It was astonishing how quickly he obtained practical results after some such idea had first dawned upon him. He was an intuitive reasoner: not a simple plodder. First he tried ultra-violet rays. These rays, however, affected the subject's eyes. Alarmed by this, he then experimented with infra-red at the other end of the spectrum. After some drastic experiments, during which the sitter had to withstand the heat from a battery of electric fires and a dummy actually burst into flames, Baird tried out an ordinary electric bulb covered with a thin coating of ebonite. These bulbs passed no light, but only the infra-red rays. Almost immediately he got results—though the sitter was in total darkness.

Hutchinson was shown this wonderful phenomenon of "seeing in the dark." Again the members of the Royal Institution were summoned to the laboratory in Frith

Street. Among them on this occasion was Sir Oliver Lodge, about whose visit Baird wrote: "He came with his daughter and said it was 'amazing, but very hot.' I thought this was a pity, as he was the best subject for television I have ever seen, his white beard and impressive head coming through marvellously well."

The newspapers, again, "played up" the new marvel and Baird was given reams of valuable "write-ups." Sometimes this publicity had unlooked-for results.

With television achieved in the laboratory, Baird's next ambition was to transmit visual images over a distance. In order to make a television service practicable, the bogey of distance had to be overcome. At this stage, therefore, the inventor got into touch with Mr. Kirke, Chief Engineer of the B.B.C. Kirke was very interested and helpful; several transmissions were arranged, the television picture being sent from Baird's laboratory at Frith Street to a B.B.C. studio by telephone line. Kirke then put it on the air through the B.B.C. radio transmitter. Baird received it again by wireless at his laboratory. Complete success was achieved by this method.

Baird triumphantly recorded that "the picture came through the B.B.C. practically unaltered." It is interesting to note that, in this experiment, the Corporation actually transmitted television in 1926, the year of its first official demonstration, although Baird was bound to silence and nothing was heard of the affair publicly.

Silence and secrecy—Baird's bugbears! The plain fact is that far from receiving any encouragement Baird soon had word from "higher up" that the television experiments at the B.B.C. were to cease.

When this progress-blocking directive reached him he made another move. He applied to the Post Office for a licence to transmit television and obtained the first such licence ever issued—"2T.V."

The time then came to move from his cramped quarters at Frith Street. In February, 1926, he transferred to Motograph House, near Leicester Square, and began his own

transmission to an experimental receiving station at Green Gables, a villa in Harrow. Able to equip his laboratories, Baird employed Mr. B. Clapp, his first technical assistant.

Clapp, writing to me in 1951, recalled those early days; how they erected wireless masts over Motograph House, in order to make the transmissions to the Harrow villa. They were certainly getting down to business, and presently Will Day—one of the first business men to give Baird a helping hand—was bought out of the small concern.

Then a newcomer was brought into the picture — a friend of Hutchinson, one Captain Brodrib. They formed a small private syndicate that came to be known as the Parent Company. They called it Television Limited; it had a capital of £500. Now they began to reach out. In 1928, with the help of Clapp on the technical side and Hutchinson on the business side, they achieved another spectacular success—across-the-Atlantic transmission.

Mr. Clapp, who carried out much experimental work on transatlantic radio, had become Baird's first technical assistant in November, 1926, in the first television company. In September, 1927, Baird suggested unexpectedly that Mr. Clapp should go to America to attempt to receive a television picture, using a short-wave transmitter. Wireless on short wavelength was being sent from London to America regularly by amateurs, some using quite small apparatus; it was argued that if speech could be transmitted so could television; actually it was not so easy as was imagined. In New York Mr. Clapp did receive speech, music and vision signals and, when Captain Hutchinson arrived early in 1928, a television picture, admittedly very crude, was demonstrated to Press representatives and reported in the New York Press on and about 9 and 10 February, 1928.

Mr. Clapp remained in New York until the end of February, then sailed for England in the *Berengaria* and received in mid-Atlantic a picture which, though very crude by present standards, created great excitement among those present.

CHAPTER SIX

MONEY AND THE INVENTOR

"IF AN INVENTOR reads these pages, let him by this be admonished to do what Graham Bell, inventor of the telephone, did, and sell at once for cash. Inventors are no match for financiers where stocks and shares are concerned, and will, if they hold on, find that the financiers have the cash and they have the paper."

So Baird wrote in his memoirs. We shall see why. Actually he had two sorts of people to contend with: the orthodox scientists to whom he often referred with bitterness, and, more important, the business men, who were to provide the funds necessary for him to continue his researches. Whatever he may have thought in looking back, he was well aware in the early days of television that scientific prestige counted for very little except in so far as it might help him to interest the City. Here the whole question of the relationship between inventor and backer comes up for consideration, and, as it is the crux of the business story of television, one may well ask what any inventor, or any backer, can reasonably expect from that relationship.

It is sometimes suggested that John Baird "sold himself" to Big Business. But Colonel Ian Anderson (then a partner in the firm of Vowler & Company), to whom I referred in the previous chapter, has provided me with irrefutable evidence that this is not true. Before I supply this evidence to my readers, however, I should like to point out that the majority of inventors could never sell themselves—or their inventions—to Big Business for the simple reason that they have never discovered anything worth the buying.

There are many men of imagination, some level-headed, some no more than wild visionaries, who hit upon new theories, new ideas or new inventions. But how is one to sort the grain from the chaff?

The inventor is seldom a practical business man. Some of Baird's early inventions did not work and the people who put up the money for them simply lost it. To think out an idea is not so difficult; even to put a plan on paper and to elaborate a new theory is no great feat. In fact, an inventor may actually set up a working model in his laboratory, garret or bedroom, only to find that it fails completely to give practical and profitable results. There is a vast difference between a backroom triumph and successful manufacture on a large scale.

Baird came to realize this difference too late. He would work out a theory which he had formed, test it on paper, check and re-check it, and then he was ready to make the preliminary test. In order to do that, however, it was necessary to buy or make the appropriate tools, instruments and so forth. Where was the money to come from? If at this stage of any inventive progress he had approached a hundred possible backers, ninety of them at least would have turned him down. Some few of the remainder might have displayed polite interest, for Baird's personality was attractive and he could tell his story extremely well, but he would have been lucky to find even one man ready to put up the necessary hard cash.

What actually happened was that Baird's Scottish relations, the Inglises, were the only ones to come handsomely to his rescue in the first days of television. He was forced to count on their support and they did not fail him.

But the time came when really "big money" was needed, and those kindly relations and friends, who had been willing to put up what they thought to be fairly substantial sums, found it impossible to provide him with thousands and tens of thousands.

Baird discovered, too, as many an inventor had done before him, that the friendliest of speculative investors get

tired eventually of doling out capital which brings in no dividends; the hope of winning uncertain glory is not a good enough reward. John, of course, did not ask for charity, but like many other pioneers, whether in business, science or the arts, he did try to "hook" the more venturesome capitalist fish with the bait of big returns for a relatively small outlay. He found them hard to catch. Many nibbled at the bait but drew back when they found it was no more substantial than the stuff of which dreams are made.

After all, who knows whence ideas originate? We do know who first brought telephones, gramophones and wireless into practical use, but how many inventors might once have been glad to sell the earliest ideas from which these great developments sprang? Scientists, like artists and musicians, are continually picking up stray ideas conveyed to them through the work of other men. They study technical books and magazines, reports to learned societies, records in libraries and the patent offices, and from such sources they glean their inspirations.

Inventors seldom go to bed one night to wake up with a marvellous discovery in the morning. No, their inventions are the outcome of long and painstaking research into that compendium of experimental knowledge to which thousands of other workers have contributed their mite. Thus even John Logie Baird cannot be said to have *invented* television. But he was the first man to take it out of the laboratory stage. Perhaps he did that too early, perhaps before his apparatus was sufficiently developed. The fact remains that he transmitted recognizable visual images by wireless before any other inventor.

Whatever he may have thought, he never posed as a victim when speaking to me of his struggles. After all, he was doing what he wanted to do. No doubt it would have eased things for him if he could have got a well-paid job as a research engineer with one of the big firms, but he was a man of independent mind who really wanted freedom to pursue his own researches. And the only way to attain that

freedom was to get people who had faith in him to put up the necessary money.

Luckily for him, television was born at a time when company promoting was running rather wild. Speculators, greedy for fat profits and quick returns, were ready to gamble on very slim chances. Baird certainly did not see himself then as a "poor old inventor to be exploited by the capitalists." When, therefore, I discovered during the writing of this book that there was a widespread impression that the pioneer of television had died a comparatively poor man because he had been exploited by ruthless financiers, I felt it important to publish the truth of the matter.

The entire history of Baird Television certainly has elements of financial drama, political intrigue and malevolent campaigning against John himself, but it contains no record of his victimization by Big Business. On the contrary, as the following letter from Ian Anderson clearly proves, Baird had a fortune within his grasp:

Old Surrey Hall,
East Grinstead.
21 September, 1951.

Dear Sydney,

You have asked me to send you what information I can about my earliest association with John Logie Baird and my part in the original construction of a company to exploit television commercially.

I originally met Mr. Baird about the beginning of 1927 on the introduction of Captain O. G. Hutchinson. Hutchinson told me about Mr. Baird's ideas and asked me if I would go and see his small laboratory on the top floor of a building in Long Acre. Hutchinson told me that he had known Mr. Baird and/or his family in Glasgow and that he had met him walking in the Strand and asked him where he was going; he said he was walking home to some address, which I forget, in the East End of London. Hutchinson asked him why he did not take a bus and he said he had no money and could not take buses. Hutchinson asked him what he was doing and he said he was working on television. Hutchinson decided to finance him in a very small way, as he could afford nothing

more, and had taken the little laboratory for him in Long Acre and helped him to get some very primitive equipment.

I went to Long Acre with one of my partners and met Mr. Baird, who gave us a demonstration of television, using both electric light and infra-red; he televised me on to a screen in another room connected by a wire, where my partner could watch, and then he televised my partner so that I could see him. The whole of his equipment was a most Heath Robinson affair, tied together with bits of string, bits of wire, old bicycle lamps, etc. I was tremendously impressed with what I saw and felt certain there were enormous potentialities in the invention.

There and then, having heard from Hutchinson that the amount required to buy some reasonable equipment would be £50,000, I decided to raise £100,000 provided he (Hutchinson) could raise one-third of the sum, i.e., about £33,000. Hutchinson went up to Glasgow to see various friends of his and within a week came back with promises to put up £33,000. On 27 April, 1927, we made the issue, which raised for the company approximately £100,000. Sir Edward Manville, the then chairman of the Daimler Company, was the chairman of the first company.

Approximately a year later very considerable progress had been made in research and numerous patents had been applied for—not less than fifty such applications in various foreign countries. It was decided that more money was needed, and on 26 June, 1928, a new company called Baird International Television was formed with an authorized capital of £700,000 and a further issue of shares was made, which raised a net sum of approximately £250,000. In this company Lord Ampthill was chairman and Sir Edward Manville, the chairman of the original Baird Television Development Company, was also on the board. John Logie Baird and O. G. Hutchinson were directors of both companies.

On or about 1 March, 1930, a scheme of arrangement and amalgamation between the original company (Baird Television Development Co., Ltd.) and Baird International Television Co., Ltd., came into force and the capital of the International Company was reorganized so as to be £825,000.

You have asked me what Baird got out of this. Baird and Hutchinson were allotted some three or four hundred

thousand one shilling Deferred Shares in the original International Company, and these, under the scheme of amalgamation before referred to, were converted into some other similar stock. Baird and Hutchinson were appointed joint managing directors and were given contracts for a period of at least five years. Their actual remuneration I am afraid I do not know, but it must have been quite substantial.

I know that I, personally, was authorized on behalf of an important company to offer Mr. Baird and Captain Hutchinson £125,000 each for their share holdings when it was subsequently suggested that a new and larger company be formed. They were also to be appointed joint managing directors at a substantial salary, I think £10,000 a year each.

Captain Hutchinson considered £125,000 as completely inadequate; in fact, I remember him so well saying to me: "Mr. Anderson, do you mean £125,000 a year?" Whereas John Logie Baird said: "Oh, Mr. Anderson, £125,000—I just don't know what I would do with that amount of money and I would just hate to have it—I would not be able to sleep at night." So neither cashed in, each for a different reason.

As you know, I had the greatest regard and affection for Baird, and I think the very last time I saw him he came to a luncheon party at the "Savoy" during the war and made a brilliant speech on television and on the part he had played, and was most kind to me and my firm for the assistance we had given to television in its infancy.

(*Signed*) IAN ANDERSON.

It will certainly come as a surprise to a great many people to learn that Baird was offered an immense fortune at a time when television had yet to pass through many further stages before it was of continuous entertainment value.

I had known of this offer, however, all through the piece and had formed my opinion as to why Baird hung on to his shares. His rivalry with Hutchinson had much to do with his decision to retain the only commercial weapon he had—voting power—which lay in the possession of his shares. That Baird afterwards regretted this foolish decision to throw away a fortune, which would have enabled him not only to live comfortably for the rest of his life but also

to employ his talents independently he realized too late, and he refers to it more than once rather ironically in the notes he left behind him. But, as they say in the City, it is of not much use "jobbing backwards."

Hutchinson refused to part with *his* shares for a "mere sum" of £125,000 because he really believed that the market would go higher. Many men with similarly unbridled optimism have eventually gone bankrupt.

Baird, of course, had just cause for resentment at the way he was ultimately dropped in the final lap of the race for television honours. I should be the last to deny that, but I do deny emphatically that he was exploited when he put his invention on the market. He did not expect and had no right to expect money and enthusiasm to be forthcoming at the wave of a wand, but neither did he anticipate—nor should he have had to suffer—the hostility with which his claims were not so much rebutted as derided. Here some of the technical men showed up very badly. "The wretched nonentity working with soap boxes in a garret," as Baird described himself, was cruelly exposed to a barrage of class prejudice. How was one to account for this hostility? Baird, when he was alone with me, put it down to plain jealousy and snobbery, and dismissed the matter with a few words of blistering invective. He was not far wrong.

The opposition did come almost entirely from the men who resented—and feared—the achievements of one they regarded as an "outsider" in more senses than one.

The public and the general Press, on the other hand, were receptive and by no means unkind. Often they were encouraging. Sometimes generously enthusiastic. For all that, the going was distinctly tough for Baird *until the financiers decided to sponsor his genius.*

Undoubtedly they "put him into the money"; they made it possible for him to work in well-equipped premises and to embark upon experiments far more costly than he could possibly have afforded without public money behind him. And, as we have seen, they gave him the opportunity to become a rich man.

CHAPTER SEVEN

ENTER THE "ARCH-VILLAIN"

HAVING DECIDED TO form a public company, Baird and Hutchinson set out to "raise the wind" in the "City." Strange though it may seem, neither of them had the remotest idea how to go about the matter. It was by the merest chance, and only after exploring several blind alleys, that "Hutch" got into touch with Vowler & Company, the firm of issuing stockbrokers in which Ian Anderson was a partner.

Now, my friend Anderson, although he described what happened in the important letter to me previously quoted, went into no details of the early negotiations and did not stress the prominent part he played in them. The fact is, however, that his influence was virtually decisive.

Baird's position at the time of the first approach to the "City" was certainly a promising one. He had—or seemed to have—a complete monopoly of television. He and Hutchinson were quite aware of the importance of this point and they "shouted it loud and shouted it long." It was their main prop with nervous underwriters. But while some of the Vowler partners wondered "what it was all about," and were hesitating to back Baird, Ian Anderson came at once to his support.

Old Vowler put the other side of the case. "You, Ian," he said, "have the excuse of youth for embarking on this wild adventure, but as for Risdale (another member of the board), his grey hairs should have brought him more sense."

Baird and Hutchinson were lucky in this first venture. They overcame the resistance of the more hesitant partners

and the purchasing formalities were completed. The underwriting cheques were handed to Charles Baker in the office of Kenneth Brown, Baker & Baker, and Hutchinson and Baird returned to the Engineers' Club to celebrate. But they had brought things off only just in time! The very next morning after they had completed the underwriting arrangement, the newspapers blazed the news of a big demonstration of television—*not by Baird's system.* At the very moment Baird was trying to convince the underwriters that he had a world monopoly of television, this demonstration was staged by the American Telegraph Company in New York!

In thus "jumping his claim" the Americans not only broke Baird's monopoly but robbed him of his main talking-point.

Naturally the underwriters were furious. To all appearances they had been misled. According to Baird, they wished to back out of the contract, and he and Hutchinson again had to use their persuasive powers—this time to convince the underwriters that they had absolutely no knowledge of the American demonstration. They were at pains to point out that they had already had a fourteen months' monopoly. In the nature of things it was not to be expected that they would remain the only people able to show television, particularly as wide publicity had been given to every detail of the Baird apparatus. A distinguished French scientist, Dr. Dauvilliér, who had witnessed one of Baird's early demonstrations independently, confirmed that the American Telegraph Company had followed his methods.

The crying over spilt milk, therefore, soon died down. Though their confidence was considerably undermined, the underwriters decided to go ahead with the agreed plans. Baird himself was shaken by his narrow escape: it was natural that he should have come to regard television as his exclusive property, though the business man in his nature had long expected the emergence of competitors.

When his company was first formed Baird was the only

Objects of The Public Entertainment.

Television Broadcasting Company Ltd.
Alternative titles The London Broadcasting Co (L.B.C.) The Television Broadcasting Co (T.B.C.)

1/ To acquire from Baird Television Ltd.
The sole rights in all their large screens.

2/ To acquire from Baird Television Ltd their transmitting station and Studios at the Crystal Palace of which the Baird Co have a 30 years lease (Note: our present lease expires at the end of this year but I foresee no difficulty in renewing this)
This situation is admitted to be the best in London for Television Broadcasting. our present Wireless transmitter used for the Dominion theatre would cover most of the West End

3/ To acquire from the government a licence to broadcast Television to places of Public entertainment.

4/ To establish a Broadcast Television service to places of Public entertainment

5/ To supply large Screen Television equipment and large screens for Television public address Systems and also advertising Signs (Note. Very brilliant large screens can be made in the form of illuminated signs. The Pictures are crude but spectacular and could be shown in Trafalgar Square or similar Public situations)

6/ To acquire rights or take licences in any forms of large screens Television apparatus from any Company or person having operative or patents which are considered valuable

This facsimile of one of the inventor's private memoranda to Sydney Moseley sets out clearly and concisely his suggested

Suggested Heads of Agreement
between Baird Television Ltd and
The Public Entertainment Television Broadcasting
Co Ltd

1. Baird Television Ltd to appoint
the Public Entertainment Television Broadcasting Co Ltd
their sole selling agent for all Television
apparatus for Public entertainment. {i.e. use in Cinemas
Theatres & Public Halls}
Baird Television Ltd agreeing not to sell
or hire such apparatus except to the
new company.

2. The Baird Company agree to grant
a sole ~~licence~~ Patent licence to the Public
Entertainment Television Broadcasting Co Ltd whereby
The P.E.T.B. Co can themselves if they
so desire manufacture any Television apparatus
for Public Entertainment under the Baird
~~patents~~ Patents free of any Royalty or other charge

3. The Baird Company agree to transfer to the
~~new~~ P.E.T.B. Co Their transmitting apparatus
in the south Tower of the Crystal Palace
Together with their lease of the South
Tower and adjoining Studios

4. The P.E.T.B Co agrees to give the Baird Co
80% of its total share capital

plans for a new "television screen company." Baird's explanatory notes to clauses two and five are very interesting.

person who could produce anything approaching an image by television. His technical staff consisted of a handful of new men who had no experience of Baird's individually built apparatus. This was before the days of television engineers; the radio engineers had much to learn in the way of new techniques and, no doubt, to unlearn in the matter of prejudice. The directors were understandably worried over having all their valuable eggs in one frail basket of knowledge. They felt that if Baird should be put out of action for any reason whatever, this whole project might topple over like a house of cards.

The simple solution was to insure Baird for the immense sum of £150,000. He believed at the time that it was the biggest life insurance ever taken out, and very likely it was, but as he remarked to me ruefully some years later, the Hollywood film stars soon eclipsed his record. Baird doesn't record it; but Hutchinson told me that his own services to the company were regarded as of equal importance on the business side; so that he, too, was insured for a similar amount!

The doctors were doubtful about Baird as a "risk," and well they might have been considering his chronic bronchial affections, which had put him into the "Unfit for any Service" class and kept him out of the First World War. The record insurance policy itself, however, was such "a stroke of business" that the insurance companies agreed to issue a policy for twelve months at a premium of £2,000.

It was shortly after the company was formed that I met John Logie Baird for the first time. He found me and another man, whom I do not recall, talking to Hutchinson one morning in the board room and concluded that we were both considering an investment in the company. Perhaps the other man had called for that reason, but my own purpose was simply to learn something more about television, for as a journalist I felt certain that it would soon be very much "in the news."

Baird's manner and appearance and his gentle, hesitant way of speaking appealed to me at once, and for some

reason or other his first impression of me must have been favourable, too. I was touched and extremely pleased when months after his death I read his own account of this meeting and I hope I shall be pardoned for reproducing it in his own words.

Referring to the two strangers he found in the board room with Hutchinson on this occasion, he wrote:

"One of these, a stout and jovial man, with a merry and wicked twinkle in his eye, immediately attracted me. It was Sydney A. Moseley, who was to play a very prominent part in our future activities. Both Hutchinson's and my own knowledge of high finance were infantile and this was also true of our knowledge of journalism. We were both much upset because a certain wireless paper had seen fit to publish unfavourable criticisms of us which we considered utterly unfair and prejudiced.

"We talked to Moseley about this and he said he would fix it and he did. The next issue of the paper contained an article by Moseley refuting all the previous attacks and hailing the invention as a great achievement. From that day on his position was established. He became one of the family and I welcomed him with open arms. What a relief to have a man about the house who took a real interest in our affairs!"

My only comment upon my old friend's recollection of this meeting is that he was—characteristically—mistaken in supposing that I promised "to fix" things in regard to the attacks which had been made upon him in a wireless newspaper. Of course, I did nothing of the sort; I merely offered to investigate the facts.

It is necessary to mention here, however, that from the moment I met the two men together I was aware of a kind of antagonism between Baird and Hutchinson. This was not openly expressed in any way at the time, but I could feel a slight tension in the atmosphere, and later, when I came to know them both much better, I found that this tension was even more marked at board meetings and became intensified as the company's prospects improved.

Baird, in his notes, said that he did not feel certain "on which side of the fence" I should come down. In reality, I was not sitting on the fence at all. Though my affection for Baird was spontaneous and enduring, I came to have a real liking for Hutchinson, too. The Scot and the Irishman were poles apart in their outlook and temperaments, but my wish was to play the part of mediator. It was only when I found that John was quite unable to fight his own battles and when I realized that Hutchinson had been drawn into a hostile camp that I took up the cudgels on Baird's behalf. I was never disloyal to Hutchinson, however, and always well disposed towards him, even though I had to oppose him stubbornly on certain issues.

In any case, the total lack of sympathy between the two men upon whom the progress of television depended was a sad handicap to the company from the start. Its effect was to make things more difficult for everybody throughout the early years of striving. At the very time when complete co-operation and understanding were most important, their co-directors and their staff were continually upset by the mounting antagonism between the joint managing directors.

Baird, in his own memoirs, attributed the gradual decline which eventually took place in the company's fortunes largely to the estrangement between Hutchinson and himself. And he wrote about this estrangement with, perhaps, more bitterness than was justified by the facts.

"It came to a head," he said, "when the name of the new public company had to be settled. I wanted it called Baird Television, Ltd.; Hutchinson wanted it called British Television, Ltd. He said the name 'Baird' limited the scope of the company; it should be all-embracing. He had the prospectus printed with the title British Television, Ltd. I lost my temper and told him he could form his own company and call it what he liked and I would form *my* company and call it Baird Television."

In the notes he left behind him John wrote about this quarrel as though it had marked a decisive phase in the

company's affairs. Actually the storm had been brewing for a long time and this was merely one of its many thunderclaps. Baird, in looking back over the years, was very hazy about dates and the exact sequence of events and he must have imagined that I joined the board long before I really did. At all events, continuing his commentary upon his relationship with Hutchinson, he observed that his threat to break with him altogether had the desired effect and there was no further talk of "British Television." "But," he added, "our relations were hopelessly strained and the company was split into two camps, a house divided against itself."

Things had *not* reached that stage at the time of my first meeting with the two men. Yet Baird went on to write: "Into this unpleasant and intriguing atmosphere entered the cute and crafty Sydney. For a little while he was not sure on which side to throw his weight, but after a brief and uneasy period he came over definitely to allegiance with the Baird faction.

"We had much in common; to me he came as a gift from heaven, although many thought otherwise and saw in him nothing but an arch-villain, and tried to make out that he was crafty, unscrupulous, seeking only his own interest, ready to twist and turn and betray and ruin us all if it would benefit his pocket.

"My position was a most difficult one. I had no business friends; plenty of acquaintances, plenty of contacts, but no friend; no one who spoke my language, no one with whom I would willingly have spent a minute more than was necessary for the purpose in hand. I was uneasy and bored in their company and they in mine. But it was not so with Moseley. First, I think, because he had an outstandingly shrewd, acute mind and a keen sense of humour; secondly, because he was utterly devoid of false dignity and pompousness and free of the hypocrisy and humbug which are their invariable accompaniments."

Let me interpolate at this point that, naturally, John's opponents, whom I contrived to frustrate on several occa-

sions, *did* come to look upon me as "the arch-villain of the piece." It is, frankly, a great satisfaction to me that my old friend never took this view of me and placed it on record repeatedly that I stood by him staunchly from start to finish.

He could be his natural self with me, but I must protest that when he said we spoke the same language, that was only true in regard to our common understanding! I never attempted to match him in his occasional outbursts of profanity, of which he wrote:

"I had served an apprenticeship as a fitter among the lowest of the working-class, hard, brutal men in hard, brutal surroundings, driven from morning to night by the fear of poverty and destitution never far behind. In these surroundings dignity and decorum had short shrift, and even now, in moments of acute stress, I am liable to break into a flood of Saltmarket eloquence, sufficient in its foul brutality and obscene imagery to cause a Billingsgate porter to cover his ears in horror."

I think that is a slight exaggeration, but I cannot deny that when Baird did lose his temper his command of thoroughly bad language was certainly impressive, if not enviable. The truth is, I am afraid, that he was never at his best in the board room or upon any purely business occasions. When it came to dealing with the other directors, Hutchinson, as business head of the company, was able to get down to brass tacks with them more easily than John ever could. Indeed, Baird saw from the start that he was quite out of his element in dealing with his colleagues.

"I was busy with my wheels and pulleys," Baird continued, "and soon came to regard board meetings as analogous to going to church—functions to be slept through. Sometimes I woke up with a start at some of the proceedings at these meetings, but after a few squeaks I relapsed again into dreams of further permutations and combinations of wire and mirror drums and lamps."

This interesting passage from the notes he left at his death shows that, if he could laugh at the board, he could

also laugh at himself. "After a few squeaks" is not a very egotistical account of his own contributions to these deliberations. He was clever enough to see his own weaknesses as well as those of others.

Though Baird so loathed the board meetings, he was wise enough to attend them. It seemed to me that one of the prime reasons he never failed to attend was that he wanted to watch Hutchinson. The misunderstanding between them was never cleared up. To John, "Hutch" remained "Captain Hutchinson" to the end. One of the reasons why Baird would not part with any shares was his fear of the "share dominance" of his co-managing director. Hutchinson held on to his own for much the same reason and this led to a misunderstanding in which I was concerned.

In recognition of my intensive work for the company it had been suggested that some tangible recognition should be given me.

"Give me some shares—each of you!" I promptly suggested. They both agreed. After all, they had probably argued, unless the company prospers all our shareholdings will be valueless. But they went no farther than the promise.

Then came a day when things looked decidedly black. The joint managing directors called me in. Action, vigorous action, was urgently needed. "All right," I said, "but what about those shares you promised me?" They solemnly undertook that while I was engaged on my mission—a very important one for the company—they would decide the number of shares each would allow me when it was accomplished. I thought that was generous and went away determined to do my part. I did; but the shares never materialized, the reason being that each waited for the other to make the first move. In the end I certainly got my shares—but I paid for them!

Now I have no desire to blow my own trumpet, but it is the simple truth that long before I joined the Board I had made it my immediate mission in life to put Baird Television "on the map." Neither Hutchinson nor Baird could

have done that without my help, and this brings me back to John's almost casual mention of the part I played in countering the criticisms of his invention which were being made in *Popular Wireless*, the technical paper to which he referred in the previously quoted passage from his memoirs.

Baird, recalling the whole matter after a lapse of many years, underrated the importance of *Popular Wireless*, which, though it had not a very large circulation, was nevertheless *the* paper most read at the time by radio amateurs and enthusiasts. He seems to have thought that it was a simple matter for me "to fix things"—which, I repeat, I never promised or attempted to do—and also that I set out "to hail his invention as a great achievement," which again was not the case.

Actually, *Popular Wireless* was showing no enthusiasm for our television because it thought—honestly, no doubt—that the invention had not reached anything like a practicable stage. (Nor had it, for that matter: but it should have been encouraged.) Anxious to prove itself in the right, this journal had issued a £1,000 challenge to Baird to give a genuine television transmission, making certain provisos, however, as to what would constitute a convincing demonstration. These provisos, or conditions, could not possibly be satisfied by Baird at the stage of technical development to which his system had arrived. How then was it possible to answer this challenge in such a way as to make sure that his real, if modest, claims would receive consideration?

Captain P. P. Eckersley, then the brilliant Chief Engineer of the British Broadcasting Corporation, had written in *Popular Wireless*: "There is nothing wrong with television in principle. There appears, however, little hope of practical issue, except in a limited sense, because the quantities involved are unwieldy . . ." and so on, in the same strain.

When I met Baird on the day of the £1,000 Challenge he seemed completely squashed. Not knowing the catch of the "provisos," I asked him if he were going to accept.

"Even if I showed these people more than they expect," he replied with a shrug, "they would still assail me."

I told him that if he had indeed achieved this miracle of transmitting sight through obstacles I could help him.

"How can you?" he asked.

"Oh, merely by making them print the facts," I replied.

"Nothing that you can write will offset what these men have been writing about me."

"We'll see. If you show me what you've got—but remember, you'll be taking a risk though. If you haven't got anything I'll have to say so, too."

Baird said grimly that he was well aware of that. He had become bitter and suspicious. Captain Hutchinson, volatile but deadly serious in his support of Baird's claims, piped up: "No, we're not going to show television to anyone any more. They are trying to kill us."

I sympathized and did not press the point, merely repeating the terms of my offer: that if they were able to show me what I believed was genuine television I would give publicity to the achievement, but that if they could not do so I should equally report their failure.

"I'll either make you—or the other thing," I said.

Baird looked at me steadily and then stroked his chin.

"Well" ("Wee—l" it sounded), he said at length, "I think perhaps I could take a chance with you."

Hutchinson was not so sure. "It can't do much good," he objected, "even a journalist of your reputation, Mr. Moseley, won't be able to undo the harm that is being done to John."

The nature of Hutchinson's doubts was plain to see. Supposing this particular experiment failed? One couldn't be certain with television, especially in those days. Supposing I, like the experts, expected too much? That might be the end of television for a long time, at least as far as Baird was concerned.

Nevertheless they finally agreed, after many warnings and pleadings by Hutchinson, to let me see for myself what they could do. Baird quietly went about preparing the

little experiment, to which I looked forward with intense curiosity. In the laboratory at Long Acre he had set up his crude-looking apparatus, and as I felt my way through a maze of wires and packing-cases he warned me earnestly that there might not be very much to see because part of the apparatus was not functioning too well that day.

At last the fateful experiment started. Out went the lights. I sat before the primitive televisor and was asked to look through the tiny aperture. Suddenly there was a flicker.

Hutchinson cried excitedly: "You see, it's coming!" "Look, Mr. Moseley," said Baird more calmly, "at that object there!" I *could* see something and, truth to tell, my sympathies were so definitely enlisted on Baird's side that I was eager to be convinced.

"There!" he exclaimed. "Can't you see that tree?"

There were faint outlines of tiny objects which looked like trees, though I could not have sworn to them. What I did see with great delight was that the image of *something* in another room was coming through to me by means of Baird's contraption. He had managed to convey it *through* the walls even though little but a blurred outline was visible in the televisor. Baird looked anxiously at me and I nodded my assurance that I had in fact seen some sort of a picture.

"What you have here," I told him, "is certainly the beginnings of television. You have, in fact, transmitted a visual image and I shall certainly testify to that. I shall not be able to say that you have put over a perfect picture, but you have undoubtedly made a start."

After saying goodbye to the much-relieved pair, I went home and wrote the article which was the immediate reply to the £1,000 Challenge. Writing it was one thing, however —to get it published in the very paper which had been criticizing Baird for so long was quite another. Baird was doubtful. He feared that Norman Edwards, a hard-headed editor, was unlikely to publish anything so diametrically opposed to the paper's declared opinions.

But I had prepared for this snag. I had been to see, not Norman Edwards, the editor of *Popular Wireless,* but Mr. James Brown, a friend of mine, the managing director of Amalgamated Press, which controlled this journal among half a hundred others. I had told him that I intended seeing television and that I thought he should publish the result of my findings. He said he would do so. I asked him, further, to run my article in *Popular Wireless* itself, and this, too, he promised to do.

The sequel was as I expected. Brown had promised that that article would be published and it *was* published. But the unconvinced Norman countered this move to some extent by getting Captain Eckersley to write an answer to me on the opposite page! Still Baird was more than satisfied: he was thrilled. At last he had been able to read in the very paper which had so long belittled his claims an article by an impartial observer stating plainly that television was an accomplished fact. It seemed to give him new life.

From then on I devoted much of my time to acclaiming Baird's invention while he went on demonstrating it in all sorts of places. One of his demonstrations about this time was a transmission over the telephone wires from London to Glasgow, and this led to a "local boy makes good" celebration which he remembered in after-years with much amusement.

The transmission from the laboratory in Long Acre was received at the Central Hotel in Glasgow. It was a great success, and Professor Taylor Jones, of Glasgow University, saw it and conversed with Baird. The civic dignitaries also turned out, and this must have tickled John, remembering his wild, "anarchist" dreams in pre-war factories within the city boundaries.

As a direct result of this experiment he was asked to give an address at St. Andrews Hall in Glasgow. Baird, looking back, thought that he "muffed" it through making the lecture too technical, but it must have pleased him to see his father and sister and the Inglises (all on

the platform) waiting benignly for him to finish with the water carafe and get on with the business of the meeting. Rather touchingly, he has recorded his gratification at the generous introductory remarks made by the Duke of Montrose, presiding, in which Baird was compared to Watt, the inventor of the steam-engine, and Henry Bell, pioneer of the steamboat.

In his notes Baird wrote resignedly, however: "I understand it was gibberish to most of the audience." Still, this episode undoubtedly pleased him, although he had his moments of self-pity. After the lecture build-up he wrote: "I was now a celebrity, but instead of using this to get into the right circle, I turned down all sorts of invitations and continued to shuffle around in the laboratory in a state of dirt and dishevelment, absorbed in my bits and pieces. I paid for my carelessness later on when Big Business got hold of television and myself. Oh! Why did I not cash in while the going was good?"

But flashes of worldly wisdom and self-insight were no use. Baird did not work on his personal relations as zealously as he worked on his invention.

He refers to Sir Edward Manville, the chairman of the Baird Company, who was an engineer and who no doubt felt it his duty to take an interest in the technical details of what Baird was doing. Baird resented the old gentleman. A Dickensian note was struck again in his commenting upon Sir Edward: "He boomed at me, through a cloud of cigar smoke, innumerable pointless questions and, what was worse, he made impossible suggestions. When I tried to explain that they were impossible, his booming became angry and ominous. . . ."

With such a turn for sharp comment as that, Baird was unlikely to get into or curry favour with the "best circles."

To this period belonged Baird's first experience of luxurious meals. He had been accustomed for many years to living on a very frugal diet; breakfast: bread and tea; lunch: "milk and dash," a scone and two pats of butter; in the evening, sausages and currant bread and tea. Now,

with money no object and London's most fashionable restaurants near at hand, he tasted for the first time the joys of luxurious living.

That period did not last very long, but John always looked back on it with relish, as is proved by the following vivid passage from the unfinished memoirs he left behind him:

"Fine wines were introduced to my virgin palate, and superb dishes of rich and strange foods to a stomach trained on sausage and mashed. I plunged headlong into and wallowed in the joys of good living, all unaware of the terrible dangers that lurk in the apparently harmless pleasures of eating and drinking.

"Hutchinson and I lunched together usually; it was the high-spot of the day. Beginning with cocktails, we went through hors d'oeuvre, rich pea-soup, fritto misto, curried chicken and bombe Gladys Cooper washed down with copious draughts of Château Yquem, followed by coffee and Bisque d'Bouche brandy. And so, gorged, bloated and belching, we tottered over to Motograph House and awaited afternoon tea. Those were the days!"

Not surprisingly, Baird's health could not stand the strain of this radical change of diet. With the first cold spell he caught his usual winter chill, but it was now complicated by an affection of the liver. Alarming symptoms developed. His nose swelled to twice its normal size and became a vivid crimson. A specialist was consulted, who sternly warned him to avoid all wine and rich food thenceforth.

Boiled fish, soda-water and toast restored his nose to something like its original state, but his chronic catarrh became worse rather than better. Then Baird began to make a hobby of consulting specialists. His interest seems to have become academic, for he was determined not to have any of the operations they suggested. He loathed and feared the idea of the surgeon's knife. He seemed, indeed, to have had a low opinion of the medical profession, and after some frightening treatments by injection,

and after once having an imaginary growth burned out of his nose with an electric wire, he gave it up.

Early in 1927 Baird, in search of antidotes to boardroom boredom, began experimenting with colour television. He used a disk with three spirals of holes, one covered with a red colour filter, one with blue and one with green. When light passed successively through these spirals, red, green and blue pictures were sent out, these being received and re-combined on a similar disk at the receiver. The results were quite striking and very fascinating, although the pictures were only one inch square. This device—the successful development of which was to absorb all John's energies in his closing years—was demonstrated at the British Association meeting in Glasgow in 1927, the first occasion on which colour television was shown in public.

Next Baird experimented with the possibility of sending stereoscopic pictures. The stereoscopic effect, which is an illusion of depth in the picture, was successfully achieved. He intended to combine this with colour television, but never got down to the problem.

In the same year Baird gave a show of Noctovision, or transmission of pictures in the dark, to the British Association in Leeds. It was an extremely successful show. The crowds were so great that mounted police had to be called to control them, but Baird afterwards thought the whole thing was too scrambled for such a high-level demonstration. He was acutely conscious of anything which fell short of what he considered necessary dignity. He understood the British Association's idea of what a scientist should be, but, as in the case of Dr. Johnson's visitor, "cheerfulness would keep breaking in."

Professor Howe of Glasgow University, however, was unwontedly kind to him and wrote a favourable account in the *Wireless World*. The technical Press was also beginning to come round. It was at the British Association meeting that the Television Society was formed. Lord Haldane later became President of this Society, and Baird

modestly contented himself with an Honorary Fellowship.

The Prime Minister of the day, Ramsay MacDonald, saw a demonstration of Noctovision and found it difficult to believe. He asked me to sit in one room while he watched me from another. And he did the same with Lord Marley who accompanied him. Later Mr. MacDonald had a television set installed in Downing Street. In passing I may mention that Lady Snowden and I combined to put over the first interview by television. We installed a makeshift receiver in Downing Street, while I spoke to her through the televisor at the *Daily Herald* office.

Baird became a member of the Caledonian Club about this time. He installed a receiver in the club and on one occasion gave a demonstration to the Prince of Wales there. Baird seems to have found it an unnerving experience; he was not at his best on formal occasions and was always haunted by the bogey of all inventors whose brain-children are not in a very developed stage—a complete breakdown at a crucial moment. This did not happen. One can easily imagine the relief with which Baird and his assistant watched the notabilities take their leave, for he has recorded the heartfelt comment of his colleague:

"Damn good thing they have gone; the bloody motor's nearly red-hot."

The difficulty which Baird had in "putting himself over" in society was soon to prove a most serious handicap.

Baird had discovered television, but when he went to the B.B.C. he should have prayed for vision of another kind—the gift of seeing through the trappings of rank and title and high office to the fellow human being beneath them all. Had he been able to do this, he might have got on better with them, for beneath the surface they were quite human.

CHAPTER EIGHT

THE MONOPOLY SAYS "NO"

IT IS COMMONLY supposed that men of the same breed stand by one another in times of crisis. Generally speaking, this may be true, but does not the old proverb run: "When Greek meets Greek, then comes the tug-of-war"? And when Scot meets struggling Scot, can it be safely assumed that no tug-of-war will occur?

The history of British television proves the vanity of any such assumption. In the case of John Logie Baird versus the B.B.C. I can affirm from personal knowledge that the first Director-General of the broadcasting monopoly, Sir John, now Lord Reith, allowed no Caledonian sentiment to influence him in his dealings with his brother Scot. And in this case, let it be noted, the two men were not only of the same race, but had also been at one time students at the same college.

To say that they had been fellow-students might, perhaps, be an exaggeration. They saw little of one another at the Royal Technical College, Glasgow, but at least they met. Possibly Lord Reith has forgotten the occasion, but Baird remembered it to the day of his death. He has left a record of this first encounter:

"I met Reith for the first time," he wrote, "in rather unfavourable circumstances. I was always very short-sighted, and, at the beginning of one of the classes, the Professor asked if those who were short-sighted and wanted front seats would hand in their names. When I went up to the platform to hand in my own, three large, impressive young students were talking to him. They were talking on terms of equality. . . .

"As I did so, the heaviest and most overpowering of the three 'heavies' turned round and boomed at me: 'Ha! What is the matter with you? . . .' "

The heaviest of these "heavies" was, of course, John Reith, later to be knighted and, later still, to be given a peerage. My friend, John Baird, was from the first overawed by Reith's height, his apparently lofty social standing and his superb air of self-confidence.

It can be readily understood, therefore, that when Baird needed nothing so urgently as the B.B.C.'s co-operation, however limited, he found it wellnigh impossible to go direct to Reith and ask for his personal help.

Let there be no mistake about the fact that the successful development of Baird's system of television was dependent utterly upon the goodwill of those who controlled the broadcasting monopoly in Great Britain. Baird had made many successful transmissions and had given notable demonstrations of his invention, and these had enabled him to raise very large sums of money from the public. But the hard fact remained that he could not make a commercial success of his invention unless the B.B.C. allowed it to "go on the air" or, most unlikely, television was granted an independent entity—which Baird preferred.

The dilemma in which he found himself is one with which the originator of any "private enterprise" may be confronted if he runs counter to the interests, or the prejudices, of a State-supported monopoly.

I know whereof I speak, for in my files there are several hundred letters which passed between the B.B.C. and myself in relation to Baird Television. Originally I was Baird's self-appointed champion. Later, of course, I joined forces with him officially. But throughout the long campaign to obtain the B.B.C.'s support for a strictly British invention—which was leading the world and might well have continued to lead it—I was Baird's commanding officer in the field.

It would need a book much longer than this one to set

out the case of Baird versus the B.B.C. fully and fairly. I dealt with it at some length in two earlier works: *Broadcasting In My Time* and *Television Today and Tomorrow*, to which interested readers may refer. Here, however, I am more concerned to tell the human story of Baird than to record in any detail the history of his achievements and his reverses.

Let it suffice, therefore, to say that the attitude of the B.B.C. in regard to John's invention was precisely what might have been expected from a great monopoly suddenly confronted with an innovation which might conceivably force it to modify its entire programme and even to change its basic policy.

From the outset, therefore, the B.B.C. displayed a stubborn reluctance to give Baird so much as the chance to prove his claims. Undeterred by this adamant opposition, I bombarded scientists, notabilities and politicians to come and see for themselves what Baird could do. I harangued Mr. Lees-Smith, then Postmaster-General, in his room at the House of Commons for about an hour and a half. He listened with hardly an interruption, and in the end he shook my hand and just said: "You've done a fine job!"

Then I went to see Sir Herbert (now Lord) Samuel, and was received with sympathy and understanding. He soon perceived the nature of Baird's dilemma and, as he remarked to me when we met again in October, 1951: "It is not a happy position when any great monopoly can impede progress." He felt strongly that Baird should be given a fair chance. Not only Lord Samuel himself, but also Lady Samuel and their son came more than once to see our early demonstrations, and despite the imperfection of the image we were then able to transmit they were satisfied that Baird had made a scientific discovery of the utmost importance. It was heartening to meet this fine intellectual man who was able to grasp the essentials of the situation immediately. Lord Samuel certainly kept his word and pressed his successor at the Post Office to give Baird a chance.

Incidentally, in my last chat with Lord Samuel I asked

the question I had already put to several other eminent men. Had Baird received fair treatment from the financiers? "As to that," Lord Samuel replied, "one must remember that those speculators who backed Baird Television in the early days lost their money." And this, indeed, they did.

Resisting the temptation to quote some of the striking letters written to me by influential people during the course of my campaign to win a place for John Baird on the B.B.C.'s exclusive air, I will only say here that my friend, Gladstone Murray, who acted as liaison officer between the Corporation and our company, did his personal best to further our cause, while at the same time carrying out the policy of the Corporation. Only those who knew "Bill" Murray will appreciate the deftness and dexterity of this human, loyal, provoking and at times prankish character.

With regard to the Corporation's technical staff, it is only fair to admit that there was a genuine reluctance to put out any new programme until its entertainment value had been thoroughly established, although the somewhat eager manner with which they put over Wireless Pictures seems to contradict this. If ever there was a speculative element, it was in this public issue. Eckersley, and later Ashbridge, did not consider that Baird's system, in its then stage of development, could provide entertainment of the necessary quality. Yet they imagined they could put over this other system to the public. How wrong they were—in both cases.

In the end, of course, we had to make our appeal direct to the Government over the heads of the B.B.C., and it was only thanks to a plain directive that the B.B.C. ultimately allowed us some meagre facilities. Even then the Corporation, after a year's grudging co-operation with us, protested that the progress we were making was far too slow.

Thus Gladstone Murray, writing to me on 12 August, 1931, remarked: "I had been considering with my colleagues whether we might not discover new ways in which the B.B.C. might help the Baird Company to expedite

the progress of British television. The experimental transmissions by the Baird process have been going on now for nearly two years. It seems to me that at least at the beginning of next year there should be some variation. Surely these transmissions have yielded all possible experimental data by now."

There is much more I should like to quote and to argue about, but, as I have said, the records of a long and stubborn campaign are extremely voluminous. I prefer, therefore, to revert to the curiously negative role of the B.B.C.'s Director-General throughout our protracted negotiations with the great monopoly which he controlled.

After many preliminary skirmishes I finally managed to get Baird and Reith together for a heart-to-heart talk. This meeting, I thought, would be decisive. It was their third meeting. The first has been referred to already. The second meeting came after an interval of many years when Baird had plucked up courage to visit the great Director-General in an effort to obtain a reversal of the decision to stop experimental television transmissions over the B.B.C. At this meeting relations appear to have been reasonably cordial.

Baird described Reith's presence at this second meeting as "imposing"—"a large, gaunt frame surmounted by a grim, rugged visage surmounted in turn by a domed forehead, rendered more impressive by a heavy scar." The chief of the B.B.C. gave the inventor almost an hour of his time. It was Baird's opinion that, at this period, Reith was willing to be friendly. In fact, however, he did *not* agree to the resumption of television transmissions, and this after all was the object of Baird's visit. Reith did make a tentative offer to support an application for a Government grant to the Baird Company for the furtherance of Baird's research. Perhaps this was a "red herring," or perhaps it was meant to underline his view that television was in need of further research before it could become of any interest to the B.B.C. In any case, the Corporation's attitude became progressively more discouraging as time went on.

It was not long, indeed, before this discouraging attitude hardened and the tragic situation became clear. In short, the B.B.C.—through its Director-General and its chief engineer, Captain P. P. Eckersley—said one word to all propositions for B.B.C. co-operation. That one word was: No. Whatever excuses could be made for this blank negative, its significance was deadly clear. The immense Baird Television Company, which had raised around £1,000,000 from a willing British public, was doomed to collapse without the co-operation of the one authority which had exclusive use of the air.

It was not long before I realized that there were powerful sections of opinion sceptical of Baird and his invention. A section of the technical Press supported the B.B.C.'s policy, despite the warm welcome given to Baird Television by the non-technical British Press. There can be no doubt that the feud between the B.B.C. and the Baird Company, which was long, bitter and costly, could and should have been avoided. Much money and time which could otherwise have been expended profitably in the laboratory were dissipated in this stubborn struggle.

The whole Baird–B.B.C. episode is one from which much may be learnt. Indeed, it affords a classic illustration of what may happen in any clash between Private and National enterprises.

The B.B.C. technical staff certainly advised Reith on the question whether television should, or should not, be taken up by the Corporation. But Sir John was no cipher.

Seeing that Reith played so important a part in the early history of television, and seeing that in those early days I was the liaison officer between the Baird Company and the B.B.C., I feel it necessary to say here that despite disagreement on many issues Reith and I remained reasonably good friends and whenever I returned to London from abroad he was always glad to see me, and his successors have made me equally welcome. It was always made clear to me, however, that our meetings were of a purely personal character, so that when Sir William Haley, the

present Director-General, whom I like and admire, heard that I had re-entered journalism as an editor in 1950, he became as "cagey" and cautious as his redoubtable predecessor.

I could well understand this change in Sir William's attitude, but I retain the impression that had he been at the helm during Baird's struggle to obtain recognition my friend might have received a more sympathetic hearing. Reith was possibly made of sterner stuff, not to be swayed by any "sentimental" considerations.

But let me come to the third meeting between Reith and Baird—at a fateful lunch at the Savoy. . . .

I had finally succeeded in arranging this for the three of us—Reith, Baird and myself. Our private party in the Pinafore Room is recalled in Baird's own notes. His nervousness is revealed in the naïve confession: "It is a strange fact, but I cannot remember one single thing that was discussed at this lunch."

But I remember the occasion very clearly. Reith and Baird remained courteously aloof all the time, though we spent more than two hours over our lunch and coffee. I was hoping that the ice would thaw, but Baird, as usual, was timid and—again, as usual—he gave the impression of having a torrent of things to say if only somebody or something would breach the dam which held them back. His lips pursed and opened on the brink of speech; his eyes occasionally lit up, then dropped into dim nothingness again. If either Reith or I could have touched the button we should have seen the real Baird. But perhaps it was because Reith remained Reith and Baird remained Baird that nothing much came of this meeting. The two Scots came as close together as they were ever likely to come, but remained spiritually poles apart. Baird lived to see his fellow countryman depart from the B.B.C., only to attain higher offices and responsibilities and greater fame.

But the dreamy visionary, who invented things for men like Reith to pass on to the world, was left isolated, unsung, heartbroken. Even at a time when honours were being

freshly distributed Baird was not given so much as a mention. Some sort of recognition would have warmed the cockles of his heart as he moved from hotel to hotel, or backroom to backroom—and dreamed of what might have happened if Fate had treated him as kindly as it had treated Reith.

When it came to the writing of this book I asked Lord Reith once more whether, in looking back over the years, he could discover the reason for his attitude to Baird. He need not, of course, have replied, but he did so in a letter marked "Private," which I am consequently not free to quote. In effect, however, he repeated what he had told me in the long ago. He did not say so in as many words, but he implied that he resented, or regretted, Baird's failure to come to him in the early days of his discovery and *before* he got himself tied up with the "City" interests. I think that Reith may have forgotten—unless Baird's memory betrayed him—that John did, in fact, pay a visit to Broadcasting House in those very early days.

Perhaps he should have gone to the B.B.C.'s fountainhead even earlier, before the formation of the first Baird Company. But would it have been of any use? Baird always thought of Reith as a self-assured aristocrat and in his presence poor John undoubtedly suffered from a pronounced inferiority complex. Yet many stronger personalities than Baird quailed before the indomitable Director-General.

My own meetings with Reith were always cordial, frank and man-to-man. Perhaps that was because, although I had come like Baird from small beginnings, I remain unimpressed by any air or manner—I was trained in Fleet Street and Baird in his laboratory. Moreover, I never had much diffidence to lose. Baird, on the contrary, was acutely conscious of the real or imaginary difference in social rank between Reith and himself. And he was kept at a distance from the Director-General largely by his own diffidence.

Lord Reith's letter to me made it plain that he did not think of Baird from the point of view of a fellow Scot and

a son of the Manse. Instead he looked upon him as the inventor of a fascinating, but at that time very imperfect, system of visual broadcasting and also as "the representative of a commercial group with whose claims the technicians of the B.B.C. were not in agreement."

There it is in a nutshell. Reith's technicians had advised against the Baird process, and since he was not to be influenced by considerations of sentiment or nationality, he stood pat upon the realistic argument that he was being asked to support something which the public had certainly backed with its money, but which the B.B.C. was in no way called upon to support until it could be proved of value to the whole community.

This attitude was understandable enough up to a point, but need it have altogether prevented the Director-General from taking his humble, but brilliant compatriot under his wing in the early days?

Had he done so there might have been less need for Baird to have become so involved with Big Business and High Finance. As it was he was left with no choice. He had to make what friends he could in competitive business circles. Luckily for them, Lord Reith and his associates did not have to touch even the fringe of the world of finance. This was not because they had qualities which Baird lacked; it was merely because they lived in the shelter of the Corporation's secure monopoly.

Marconi, like Baird, had to fight his way. And Marconi, although he never had to contend with the opposition of a powerful Government-sponsored organization, had in the end to go the same way as Baird did—to the "City" for help.

True, television ultimately did develop by way of the cathode-ray rather than by the mechanical process on which Baird had first relied. But all such great inventors have to feel their way, and it was on the principles of television upon which Baird worked that television of today is founded. This may be a controversial point, but certainly none of Baird's early assistants whom I was happy to meet

again at the unveiling of the plaque to Baird, in October, 1951, had the slightest doubt about it.

To return to the B.B.C.'s early approach to the subject. I insist that a more sympathetic attitude by the Corporation might have rendered a great service, not only to poor Baird, but to the nation itself. It might have established for Britain a long and lasting lead in the field of television.

In fact, however, the Corporation watched every move by Baird with a certain wariness. If, as a result of his frustration or in an outburst of over-confidence, Baird made a slip, they were ready to rebuke. For this Baird never forgave them, and even after making allowances for their conservative habit of mind I cannot quite forgive them myself.

CHAPTER NINE

ON THE AIR AT LAST!

AT LAST, ON 30 September, 1929, the B.B.C. made its first experimental television broadcast—a great day for Baird and all of us.

The broadcast took place at eleven in the morning, an hour by no means the most suitable for transmission. It was also seriously restricted by the fact that only one wavelength was available. This meant that sound and vision could not be transmitted simultaneously because each required a separate wavelength.

The occasion was none the less historic in the annals of television. More than that: it was momentous in the history of our times, for it marked a big step forward in the development of a totally new form of communication, one which is now competing strongly with aural radio and may be destined to supersede it.

Baird and I went to our headquarters that morning as though we were walking on air—or even upon the famous socks! His eyes were dreamier than ever—looking, I suppose, far into the rosy future of international triumph, with unlimited funds for the conquest of new worlds. My own elation was of another kind. I was happy for my friend and had a cautious share in his high hopes. But I felt like an exhausted boxer must do when the referee gives him the verdict after a gruelling fight has gone the full distance of twenty remorseless rounds.

And yet, looking back upon that memorable day, how shallow was the foundation upon which our hopes were built; how pitifully small "the public" which it was possible for us to reach! Asked by an *Evening News* reporter

immediately after the broadcast how many people he thought had been able to receive it (apart from those in the studio), Baird himself put the total at under thirty.

"There is one receiving set at my home on Box Hill," he said, counting on his fingers, "and I believe the B.B.C. and the Post Office each have one. That makes three and I should say there are half a dozen other sets in the country. Add to these the receivers which clever amateurs have built for themselves from our directions and you might count another twenty. That makes twenty-nine in all."

Do not imagine for a moment that this totting-up disheartened dear old John! With a beaming smile he proceeded to tell "the Press" that large numbers of sets would be available as soon as the Baird Television Company had made arrangements with some manufacturing firm or firms to produce them.

There was a moment during the broadcast itself when Baird did seem slightly rattled. This occurred in the early stages, the viewers being confronted suddenly with a wavering silhouette instead of a recognizable human face. The temporary defect—which I did not notice because I was announcing the programme—was caused by two wires having been wrongly connected. It was speedily rectified.

Here it may be well to quote the evidence of two eye-witnesses of this first public broadcast. One was *Amateur Wireless*, whose representative wrote:

"Promptly at eleven o'clock the announcer, Sydney Moseley, came on the screen and a letter was read from the President of the Board of Trade, Sir William Graham, M.P. Speeches were then made by Sir Ambrose Fleming (the inventor of the radio valve) and Professor Andrade, who were both televised, and a light programme was afterwards given by three artistes.

"Only one transmitter was allotted for this test and so each artiste had to speak first before the microphone and then to repeat the speech while sitting before the television transmitter. During the course of the transmission I was able to witness *radio* reception on a televisor installed in

an adjacent room. The results obtained were of good quality, but trouble with 'hunting' (up-and-down movement of the picture) was experienced.

"One sees the image through a wide lens about eight inches in diameter and the general effect is similar to that of looking into an automatic picture-machine as installed in amusement halls. The image appears as a 'soft-tone' photograph, illuminated by a reddish-orange light.

"The degree of detail noticeable from radio reception was quite good, and there appeared to be no jamming or interference. On many occasions, however, the televisor started to 'hunt,' the image moving out of its proper square like a cinematograph film wrongly set, and this had to be checked by fresh adjustment taking about twenty seconds.

"The general impression gained was that the present televisor had reached the stage of development of the early, flickering cinematograph. There is much, very much, yet to be done, but the present stage is highly creditable and the fact that public broadcasts are now being given will undoubtedly hasten progress."

This was factual and objective reporting and its value to this record is increased by the reporter's tendency to understate rather than overstate his impressions.

A representative of the London *Evening News* viewed the broadcast on one of Baird's televisors in our Long Acre headquarters. He wrote:

"We were only a few yards from the studio in which Sir Ambrose Fleming; Professor E. N. da C. Andrade, the scientist; Mr. Sydney Howard, the comedian; Miss Lulu Stanley; Miss King and Mr. Sydney Moseley, who acted as announcer, were 'performing' in front of the microphone and the televisor lens.

"*We* heard and saw simultaneously because our loudspeaker was connected direct to the microphone. But 2LO, having only one wavelength at its disposal, broadcast sound and sight alternately in two-minute stretches, every performance in the studio being gone through twice.

"When Sir Ambrose Fleming stepped in front of the tele-

visor his face was not at first recognizable"—(this was owing to the hitch with the wrongly connected wires)—"but the defect was soon rectified. When Mr. Howard appeared even the movement of his lips was quite distinct.

"Four or five people simultaneously can see the image in a television receiver, where it appears in a round glass lens about the size of a saucer."

Modern television enthusiasts, particularly those who live in the United States, where today are to be found the best programmes and the best receiving sets in the world, may smile at this record of so very limited an achievement. But let them remember that it describes the miracle which was first put before the British public *nearly twenty-five years ago!* I am proud to have helped at its birth.

It might not be too much to claim that I was the midwife to the child of Baird's inventive brain. The birth itself was hailed generously by the majority of British newspapers, but I shall not weary readers with further quotations because the reports were all of very similar purport.

Naturally, too, Baird, Hutchinson, myself and our other colleagues had known long in advance that, barring any unexpected technical hitch, we could not go wrong on that great day. All of us were, indeed, weary of demonstrating the practicability of an invention which had been established beyond scientific doubt more than four years previously.

I have already described how John Baird showed his original apparatus to members of the Royal Institution in January, 1926, but, lest any reader should suppose that I gave too glowing an account of the success he achieved on that occasion, let me reproduce here the description of it which is attached to his original model, now lodged in the Science Museum at South Kensington, London:

ORIGINAL TELEVISION APPARATUS

Made by J. L. Baird, Esq.

This is the transmitting portion of the original apparatus made by Mr. J. L. Baird in experiments which led him from the wireless transmission of outlines in 1925

to the achievement of true television nine months later, when on 27 January, 1926, the transmission of living human faces with light, shade and detail was demonstrated before members of the Royal Institution, this being the first demonstration of true television ever given.

From that day in January, 1926, until the B.B.C.—its stubborn resistance broken down at last—made the first public television broadcast described in this chapter, Baird was *incessantly* giving demonstrations. I attended hundreds of them myself, and in previous chapters I have given an account of the more important among them. Nevertheless, it is true to say that Baird Television passed its *supreme* test—as far as the company was concerned—on 5 March, 1928, when at last leading officials of the B.B.C. were virtually compelled to see for themselves what results Baird could produce with the invention which they had so consistently disparaged.

It is to be noted that over a year went by between that official—though officially "secret"—test and the first public transmission by the B.B.C. which was its outcome. *Popular Wireless*, which had always been sceptical of Baird's claims, was legitimately critical of the "hush-hush" precautions. "Exactly why all the 'secrecy' was necessary," it observed at the time, "and why the guests invited to witness the demonstration were pledged not to reveal any of the facts concerning it to the Press, we are at a loss to explain."

I am rather at a loss to explain it myself even to this day, but we would have accepted almost any conditions at the time. Admittedly, Baird and I did consider whether we should not be justified in excluding from this test those who had already judged and condemned his invention before they had even examined it. After some discussion, however, John came to agree with me that our best course was to make no restriction whatever. For we had nothing to hide, nothing to lose and nothing really to fear except the worst sort of diehard prejudice. The great thing was that at long last the Postmaster-General had induced the B.B.C. to try out the invention.

We, therefore, installed receivers at Savoy Hill and in a room in the Secretary's Department at the General Post Office, E.C.1. I thought it important to get some famous stage star to "sit" for us, and Baird screwed up his courage to ask his old school friend, Jack Buchanan, to do so. Buchanan very readily complied with this request, and in so doing—though he probably did not realize it at the time—gave a performance which, because of its historic importance, no other stage favourite can ever hope to rival.

There was a small but distinguished audience. It included Sir William Mitchell-Thomson himself, then Postmaster-General, and several other Members of Parliament, among whom were, I remember, Commander Kenworthy (now Lord Strabolgi), Mr. Ian MacPherson, Sir Waldron Smithers, Major Courtauld, Lord Ammon and Sir Robert Hamilton. The British Broadcasting Corporation was represented at top level by Lord Clarendon, its chairman; Captain Eckersley, the chief engineer, and other technical experts. Sir Ambrose Fleming, F.R.S., the famous scientist to whom Baird and his friends owed so much, was also present, I am thankful to say, on this "secret" occasion.

And so this memorable "show" went on and was carried through with no serious hitch. It lasted for an hour. John Baird and I, with Sir Edward Manville, our chairman, and other colleagues and officials of the Baird Television Development Company, watched it with beating hearts in the closely guarded room at the G.P.O., praying that nothing would go wrong at the last minute; wishing, indeed, that we could be in two places at once, so that we could also watch what was going on at Marconi House, where the programme was being put over.

Here, instead of giving any personal account of this decisive test, I think it will be of interest to quote from the official letter which Sir William Mitchell-Thomson addressed to the Baird Television Development Company, Ltd., on 27 March, 1928, that is to say about a fortnight after the demonstration itself. This letter was reproduced in full by the leading British newspapers:

"The Postmaster-General has considered the results of the recent television demonstration, in conjunction with the British Broadcasting Corporation and his technical advisers, and he has reached the following conclusions which accord generally with the opinions of those who witnessed the demonstration.

"The demonstration showed that the Baird system was capable on that occasion of producing with sufficient clearness to be recognized the features and movements of persons posed for the purpose at the transmitting point. It is not at present practicable to reproduce simultaneously more than perhaps two or three individuals, or to exhibit any scene or performance which cannot be staged within a space of a few feet in very close proximity to the transmitting apparatus. In the Postmaster-General's opinion the system represents a noteworthy scientific achievement; but he does not consider that at the present stage of development television could be included in the broadcasting programmes within the broadcasting hours. He bases this view not so much upon the quality of the reproduction which further experiments may be expected to improve, as upon the present limited scope of the objects which can be reproduced.

"The Postmaster-General is, however, anxious that facilities should be afforded, so far as is practicable without impairing the broadcasting service, for continued and progressive experiments with the Baird apparatus, and he would assent to a station of the British Broadcasting Corporation being utilized for this purpose outside broadcasting hours. He understands that the Corporation would agree in principle to this course, provided satisfactory terms were negotiated between the Corporation and the Baird Co.

"It will probably be essential that any experimental demonstrations of television should be accompanied by the broadcasting of speech, and, in consequence, two wavelengths and two transmitters would be required. It will not be possible to provide a second transmitter in a suitable locality which will avoid interference with important wireless services in Central London until the completion of the new station of the British Broadcasting Corporation at Brookmans Park, which is expected to be ready in July.

"In the meantime, it is suggested that the Company should

open negotiations with the Corporation as to the financial and other arrangements which may be necessary, and it would probably be advantageous to them to enter upon discussions of the technical aspects with the Corporation's chief engineer.

"In order to find room for television in broadcasting hours it will probably be necessary to utilize, for the reproduction of vision, wavelengths outside the bands now being used for speech broadcasting. These bands, as you are doubtless aware, are already highly congested, and it is important, therefore, that the company should press on with experiments on a much lower band, which will be notified to you in due course.

"In conclusion, it is necessary to emphasize that in granting facilities for experimental demonstrations in which the public can, if they so desire, take part, neither the Postmaster-General nor the British Broadcasting Corporation accepts any responsibility for the quality of the transmission or for the results obtained.

"The object of the demonstrations is to afford the Baird Co. a wider opportunity than they at present possess for developing the possibilities of their system of television and for extending the scope and improving the quality of the reproductions. While the company will not be precluded from selling apparatus to anyone who desires to purchase it, the purchaser must understand that he buys at his own risk at a time when the system has not reached a sufficiently advanced stage to warrant its occupying a place in the broadcasting programmes."

At this distance of time it may seem that the Postmaster-General's letter, with all its cautious reserves and qualifications, was little enough for the Press to make a fuss of or for us to shout about. But it marked a turning-point in John Baird's affairs and signalized our first decisive triumph in the long battle we had fought to obtain official recognition. To say that John was elated would be an understatement and an overstatement at the same time. For weeks before the great test he had felt miserably certain that it would never take place. I could not cheer him up; could not transmit to him a single spark of my own confidence. Even when I told him, coming back fresh from the

House of Commons, that the test was "in the bag," he shook his head sorrowfully and muttered that the news was too good to be true.

In fact, therefore, he *was* overjoyed when the test took place, but he took pains to hide his excitement even from me and, once the "secret" meeting had broken up, his whole attitude was that of a man who, having backed a winner, is anxious to tell everybody that he knew it was a "cert" right from the off! That was characteristic of dear old John: he was always inclined to take success for granted *after* it had come to him, always equally ready to expect the worst before it had happened.

Not that Baird had taken no part in the great fight itself. In the popular estimation of him he was a shy and retiring man, and it is true that he could never have forced himself and his invention into the limelight or bearded the political lions in their dens. He had to leave that part of the campaign to me—"Thank God, you're a thick-skinned journalist, Sydney!"—but I could count on him to back me up whenever I had prepared the ground for him.

Thus it happened that he began to invite small gatherings of influential people to his own home—he was living at The Swiss Cottage, Box Hill, at the time—and these informal parties became more frequent and more useful with the passing months. I steered many notabilities to Box Hill in those days and found that John could cope with them most successfully. He was particularly at his ease with fellow scientists, and all of them succumbed to his personal charm, while many of them, like Sir Ambrose Fleming, became firmly convinced that he deserved public support.

And yet, after our triumph of 5 March had been confirmed by the P.M.G.'s letter, one might have thought that John had never had any anxious moments at all. He was interviewed again and again by newspaper correspondents and received them with obvious complacency. This was not a pose: it was simply a habit of mind. No sooner was one obstacle surmounted than his thoughts leapt forward to

still greater triumphs. Indeed, John had the vision of a prophet, the happy confidence of a child and the business sagacity of a sheepdog, gazing with placid eyes through the shock of hair which his so much resembled!

But it is in the role of prophet and eternal optimist that I like best to picture my old friend. I can well imagine him, sitting for once importantly at his own desk in his Long Acre office, to *receive* the Press. And I can almost hear him utter the words which an *Evening News* reporter attributed to him:

"Television from the B.B.C. station will begin modestly, with turns such as a single singer. But it is only a question of time before 'lookers-in' will see the Derby or the Cup Final!"

How right he was! How sad that he never lived to see much of his prophecy fulfilled! How bitterly disappointing that the ultimate triumph of television eluded him and went to American improvers upon his original idea!

The interview from which I have quoted took place just after a board meeting at which the directors had been drawing up plans for the utmost possible development of the concession which the Postmaster-General had granted. No doubt Baird's head was in the clouds as he left the board room.

"Even since our demonstration was made," he boasted to the Press in his mild voice, "our system of television has made great strides." (One of them had probably been made that same morning in the shape of a scrawled diagram on his own blotting pad!) "You see, the P.M.G. said in his letter that it was not yet practicable to reproduce simultaneously more than two or three individuals, or to show any scene which cannot be staged close up to the transmitter. But a new development has taken place. Now we can show six figures at once and show them from their heads to their feet. You could see them dancing, for example, or playing in a jazz band, which could be heard as well as seen. And there is practically no limit to future possibilities."

At that point, I have no doubt, John ran his fingers

through his wild mop of hair and then looked up at his interviewers with the "timid" smile so well calculated to touch their hearts. Then, with a sigh, he reached his climax:

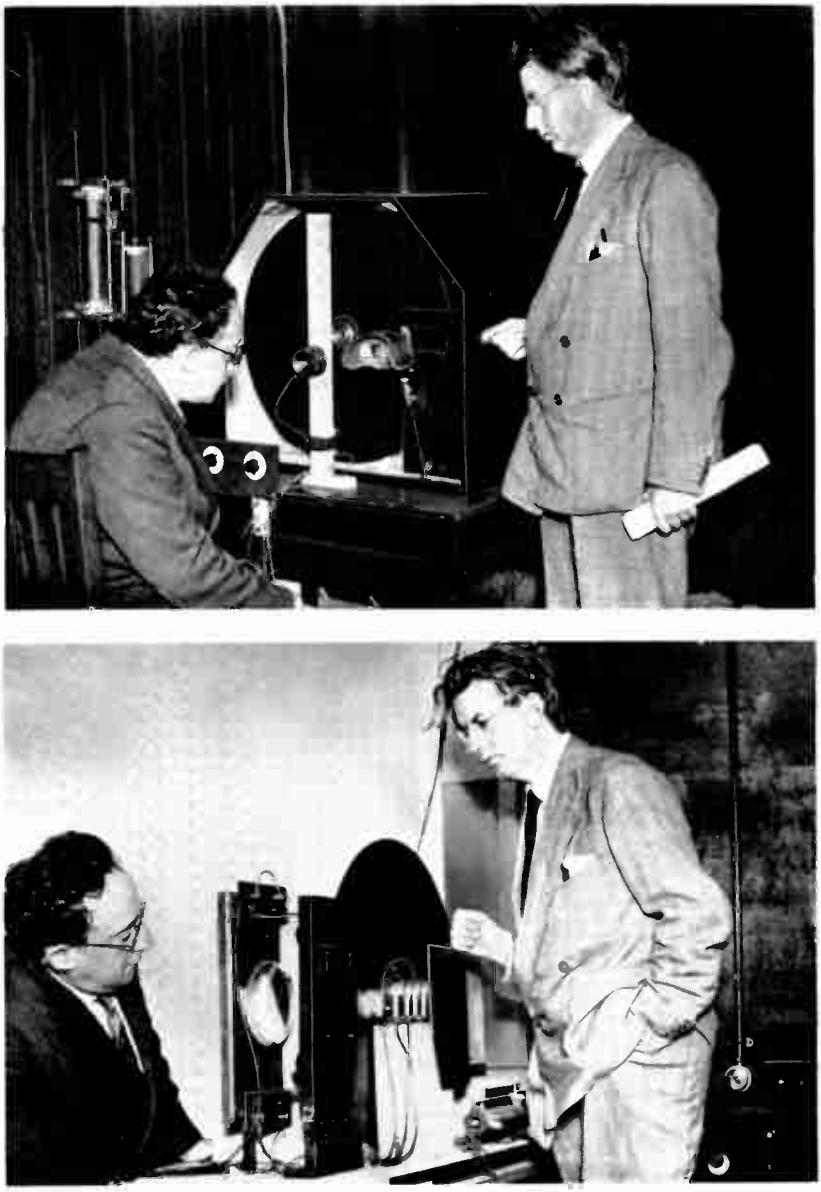
"It is a great day for Britain that she is the first country to give official recognition to television. The impetus and encouragement of the B.B.C. concession will hasten its progress, though, even now, hardly a month goes by without some new step forward."

That interview, that attitude, that optimism were all characteristic of John Baird when the tide was running in his favour. It was reported at about this time that orders for four thousand televisors had been received and that thousands more were bound to pour in. And John was probably totting up how much he would make out of his share in the royalties and counting every chicken before it was hatched.

I had not the heart then—and seldom at any time—to disillusion him, but I remembered what he had so quickly forgotten—the grimly protracted struggle to obtain any official recognition whatsoever. And I looked ahead, as he was then incapable of doing, to other and more arduous battles with keen business men, shrewd financiers and ruthless competitors.

We had won over the politicians and subdued the pundits, but we had yet to consolidate our victory and replenish our fighting funds. But I must leave the hitherto untold story of *that* struggle to another chapter.

History was made on 26 May, 1927, when living images were transmitted by telephone line from London to Glasgow. The photograph shows the somewhat crude receiver in Glasgow being operated by Mr. Clapp, Baird's invaluable assistant, who originated with the inventor the idea of transmitting images across the Atlantic. Among those standing to watch the demonstration are Professor Taylor Jones, Sir John Samuel and Sir John Henderson.



Top: Baird shows Moseley an experimental receiver. *Bottom:* the inventor demonstrates his first tri-colour television apparatus.

CHAPTER TEN

SIGHT AND SOUND TOGETHER

AMONG THE MORE vivid memories of my association with John Baird is that of the first simultaneous broadcast of sight and sound which I introduced from our Long Acre studios to the British public and thus, indirectly, to the world. There had been no previous "dual" broadcast. Baird had proved that his system could transmit moving pictures of distant events, but he was not given the opportunity to link these pictures with sound until 31 March, 1930.

In that same year and less than six months later I was the co-producer of the first sight-and-sound television play. Both events were of such historic importance that no biography of the inventor would be complete without some record of them.

I must begin by explaining that the B.B.C. could not be blamed for delaying the demonstration of dual transmissions, although Baird knew they were possible at a much earlier date. By 1930, however, I had won my long fight to obtain for television at least an experimental place in the radio monopoly's programmes and, once we had begun to put out silent television broadcasts from Long Acre, we found the B.B.C. much more ready to co-operate with us.

The difficulty about coupling sound and sight was that we required the use of two wavelengths simultaneously, and these were not available until the B.B.C. was able to put its new transmitting station at Brookmans Park into operation. Soon after regular broadcasting had begun from that station, however, arrangements were made between the Corporation and our Company for the great experiment

case. It is to be noted, however, that viewers differed a lot in their individual appraisements. For instance, while the *Express* man was disappointed by the Gracie Fields he saw upon the screen, he noted, nevertheless, that she gave her famous comic sniff *"with a sharp tap of her forefinger on her nose!"* Several other correspondents present went into raptures about her remarkable performance. One said: "Her amazing range of expression was wonderfully reproduced"; another that "her preliminary gestures, accompanied by that characteristic little sniff, came over remarkably well"; and a third that "Gracie seemed to be an ideal television subject, although once or twice she moved her head so swiftly that her face became a momentary blur."

Certainly Miss Fields has since confirmed that early prediction that she would prove "a natural" in television programmes, and, for my part, I admired the way she "went into her act" on this occasion and her delightful singing of those old favourites, "Nowt About Owt" and "Three Green Bonnets."

The programme itself, of course, was not what really mattered either to the Baird Company or to the B.B.C. The important thing was to prove decisively that sight and sound could be transmitted simultaneously with almost perfect synchronization. That we did prove this to the public's satisfaction was amply demonstrated by the flood of congratulatory telephone calls and telegrams which poured in immediately after the transmission was concluded.

It was a great personal satisfaction to me when my sister Millicent rang me up while I was still in the Long Acre studio to tell me that she had both seen and heard me very clearly on her receiving set—and that at a distance of a dozen miles from Long Acre!

That impressed even me, because I had only recently given my sister this set and I was doubtful whether she would be able to tune-in correctly and in time. She was using one of Baird's standard home receivers, which had been put on the market not long before at twenty-five

guineas retail, and all of us were encouraged to receive congratulations not only from her, but from a large number of recent purchasers.

Mr. Sherriff, who brought our first dual transmission to a close, said in the course of his brief speech: "I am afraid if this invention became too perfect it would cause most people to spend their evenings at home instead of visiting the theatre." I wonder if he remembers that remark today, when, after the passage of less than a quarter of a century, the whole entertainment world is feeling disturbed by the competitive spread and progress of Baird's invention?

As usual John himself seemed to take this triumph as a matter of course, refusing to display the elation he felt, and generally giving the impression that it was no more than he had anticipated. I doubt whether it occurred to him at all that the opportunity to demonstrate dual transmission might not have come his way for years if I and some of his other colleagues had not forced his invention into the limelight. All he was dreaming of that day was his next step forward. "This is just another milestone in the progress of television," he told the Press. "We want now to get broadcasts in other parts of the country and in Scotland. Today we are only projecting the images of single artists, but soon we shall have the necessary apparatus to broadcast a revue or a boxing match with sight and sound simultaneously."

Occasionally, when I read what he had said in the next day's papers, I was exasperated by his cocksure confidence and was angry with him for building castles in the air which might be toppled over by the least mischance. And yet Baird's personal vision was much clearer than that of his television camera's magic-eye. Again and again he proved as good as his word. He did so in this instance, for, as I have said, I soon found it necessary to persuade the B.B.C. to put on a television play and had to help produce it myself!

Let me repeat that I had to persuade the B.B.C. to make this experiment, which took place on 14 July, 1930. The

fact is worth recording because it now appears that Broadcasting House regards this date as an important one in its own history. Its calm assumption that the first television play was produced solely by one of its own staff drove me, before I had even started to write this book, to make the following protest in a letter to the *Radio Times*, which was published on 1 June, 1951:

"One has overlooked many mis-statements regarding the birth and development of television in this country," my letter began. "As one of the pioneers, quite content to remain nowadays on the sidelines, I have studied with amusement some of the imaginative versions of what happened to British television; but Lance Sieveking's recent letter in the *Radio Times*, in which he refers to *his* production of the first television play, *The Man with the Flower in his Mouth*, rather impels me to abandon the role of benign veteran.

"It was I who suggested the production of the first television play and, while Sieveking's well-known energy and ability had much to do with the success of that production, he and those who worked with him knew little about television until I admitted them for the first time to our studio. I may have played the lesser role in the production of the play, but at any rate, according to the official B.B.C. letter to me at the time, I was down as 'joint producer' with Sieveking."

This letter was published without comment—not surprisingly perhaps, for the only graceful rejoinder to it would have been an apology. However, and this again is for the purposes of the record, I have kept a letter sent to me by Gladstone Murray from Savoy Hill, on 27 May, 1930, which establishes the facts beyond any question. Here it is:

My dear Moseley,

The Man with the Flower in his Mouth

Confirming the arrangements discussed here on Friday last:

(*a*) This transmission will take place from 3–3.30 p.m. on 14 July.

(*b*) Mr. Sieveking and yourself will be joint producers.
(*c*) The actors will be Mr. Val Gielgud and Mr. John Gielgud.
(*d*) The release date for publicity is Friday, 27 June, it being understood that all publicity be arranged after consultation with me.
(*e*) *Rehearsals:* Tuesday, 17 and 24 June, 1 and 8 July, at times to be arranged on Mr. Gielgud's return from Italy on 16 June.

Yours sincerely,
GLADSTONE MURRAY.

P.S. Committee at your office just after three o'clock today, please. G. M.

I trust that this will dispose once and for all of any suggestion that the B.B.C. took the infant television under its august wing almost at birth. As I have shown, it did nothing of the kind; on the contrary, if its stubborn resistance to television had not been broken, Great Britain would have been last in the field instead of first. The truth of the matter was that, although there were several men of imagination at Savoy Hill, they had little or no experience of the entertainment world. Most of these young men have since learnt the art of broadcasting, but in 1930 they were mere amateurs where entertainment was concerned. Some of them have made considerable reputations, but they had first to serve a long apprenticeship in the B.B.C. It was a marvel to me in those days to find the Corporation entrusting so much of its programme time to these young tiros; certainly commercial radio would never have done anything of the sort. But then commercial radio has no monopoly.

In regard to all the early developments of television, the B.B.C., as I have shown, was far from encouraging in sponsoring them. Nevertheless, there were a few men on its staff with enough imagination to appreciate what might be the ultimate importance of the new invention. Apart from Gladstone Murray himself, who came out boldly in our

support almost from the start, I found Lance Sieveking and Val Gielgud particularly quick to realize the latent possibilities of visual broadcasting even in its early stages.

These three men were well known to me and I often had occasion to praise or criticize their work in my then capacity as radio critic to a national newspaper. Sieveking, of course, was exceptionally imaginative, so much so that in many of the early plays he produced it was hard to understand what he was driving at, but this imaginative reach of mind, which Gladstone Murray and Val Gielgud also possessed in varying degree, made it fairly easy for me to convince them that the experimental televising of a play would be well worth while, if only for its scientific and historical interest.

Once agreement had been reached between the B.B.C. and our company, on the lines of Gladstone Murray's letter which I have already quoted, Sieveking certainly went to work with a will. Neither he nor Gielgud had ever seen the inside of a television studio until I received them at Long Acre. They knew so little about practical television, indeed, and had such an exaggerated idea of what it could do, that they engaged no less an artist than C. R. W. Nevinson to paint a back-cloth for them. I could have told them, if they had thought to consult me in time, that for all viewers would see of this back-cloth they might as well have used a sheet of newspaper or a household duster of the right colour.

But I had no objection to zeal, even when it was excessive. My sole concern was to get the play put on and then to "put it over." Between us that is exactly what we did and, considered as an experiment, our production was a great success—that is to say, it was "successful" in much the same way as Baird's televising of the dummy's head had been successful. It was a success because it showed that a television play *could* be produced, that it had great possibilities, and that the demonstration was worth while. Sieveking, Gielgud and all those who co-operated with Baird and his assistants deserve much credit for their part

in this achievement. On the production side, however, it happens to be the fact that I was the man who had the idea in the first place and that I was also the only one among them who knew anything about television. That is why I formed the apparently mistaken idea that I deserved some mention whenever the production of this television play was discussed. Not that it is a matter of much importance to me whether I am mentioned or not. I raise the point here solely because Baird's name seemed almost as likely to be omitted by future B.B.C. historians as my own. He was continually ignored during his lifetime and I am making it my business in this book to see that he shall not be ignored by posterity.

The general Press, although it hailed our achievement with gratifying enthusiasm, did not go into such technical detail as did *The Times'* correspondent. All publicity was valuable to us at this time, however, and I was able personally to increase its total volume by contributing full-page articles to the *Radio Times* and that admirable illustrated weekly, *The Graphic*. In the former I did my best to explain as simply as possible the purely technical advances Baird had made and the difficulties which he had still to overcome.

But in my article for *The Graphic* I emulated John Baird himself with a few flights of—reasoned—fancy. "When *will* it be brought home to people," I wrote, "that there *are* more wonders in heaven and earth than are dreamed of in their philosophy? In an age of transatlantic flights and of wireless itself, it is incredible to me than anybody can doubt the natural course of development in television. I wager we shall not only be able to see the winning horse in the Derby, but to observe the progress of the race from several points.

"As regards the development of the dramatic art, the recently produced play, which Mr. Sieveking of the B.B.C. 'put over' in conjunction with myself, was only the beginning of a new epoch. Then only one, and, for a brief interval, two images were transmitted at a time. Well,

within ten years a whole play will be broadcast; not only head and shoulder images, but entire figures."

Readers will realize that I did not go far wrong in either of these prophecies, though, alas, they were not fully realized with the Baird system. The fact remains, however, that his system *was* magnificently first in the field and the Company's business rapidly expanded after the first broadcast of this sight-and-sound play.

The B.B.C.'s impressions of the production are reflected to some extent in a report which Lance Sieveking made after our second experimental rehearsal on 24 June. He was kind enough to let me have a copy of this and I think extracts from it are worth reproducing here.

"Two important conclusions were arrived at in this session," the report began. "Mr. Gielgud, myself, Mr. Baird and Mr. Sydney Moseley conducted exhaustive experiments with all sorts of make-up. . . . As I suspected would prove to be true, an approximation between normal flesh tints and dead white is most suitable for a general face background, the raised parts of the face being brought out with thin lines of pure black. . . .

"The other conclusion concerns the Fading Board. At present it is painted a dark brown. Every time the Fading Board came down, when it was removed the picture became de-synchronized and started to whirl about, the reason for this being that while the Fading Board alone was before the transmitter it was giving the photo-electric cells nothing to occupy their energy. To obviate this, I am having a broad white line painted all around the board. This will ensure that the synchronization of the transmitter continues uninterrupted.

"There were a certain number of minor points of interest, one only of which is of sufficient importance to mention here. That is, that a very satisfying effect of perspective is obtained in a picture in which the back of the nearest speaker's head is seen, while beyond it, smaller, the face of his *vis-à-vis*."

Though limited in its scope, this report was fair enough.

True, it made me chuckle at the time because of its suggestion that Mr. Sieveking had already become a technical authority on television transmissions and had apparently found his own solution to some of the problems with which we had to deal. Still, it did bring Baird and even myself into the picture.

As a last word on the first television play, I would like to quote from a letter I received from Val Gielgud two days after the transmission.

"The whole experience was a most interesting one and I know that on your side you did everything you possibly could to help us and make things easy.

"I think it would be an excellent thing for us to meet again before long and discuss the results frankly because, as you hint, a certain number of inevitable difficulties in the past experiment not only could be, but definitely should be, eliminated in the event of further developments. Perhaps you would suggest a day towards the end of next week when we could meet and, as it were, 'pool' our conclusions.

"Again, very many thanks. . . . Val."

As a tailpiece to this chapter I think I cannot do better than quote certain observations which were made by Mr. (now Sir Noel) Ashbridge, the Corporation's Chief Engineer, after he had studied a proposal for some advance publicity.

"I agree," he wrote, "that there is no great harm in this, except that there is too much advertising of Baird. It gives the impression that he invented television and was the only person who had brought out a process of any kind.

"Do you think these references to Baird could be modified a little? On the 'second day' there are two such references in about twenty lines. I suggest they might be asked to alter this themselves."

Ah, well; Baird himself has made it very clear, in the autobiographical manuscript he left behind him, how bitterly hurt he was by the B.B.C.'s studious care to avoid all but the most necessary references to him and to his invention.

CHAPTER ELEVEN

THE FIRST "BIG SCREEN"

FOR ALL HIS absorption in perpetually renewed experiments to develop his great invention; for all his careless dress, his tousled hair, his moody fits of depression alternating with boyish outbursts of high spirits—Baird never lost sight of the commercial possibilities of television. In his case "the dream and the business" were inseparably associated with one another. And, what is more, he married them in his laboratory.

Though I have sometimes referred, perhaps with a touch of affectionate ridicule, to my old friend's tendency to make a mental leap into the roseate future the moment he had successfully passed through any crucial test, the fact remains that he usually "delivered the goods."

Baird was no mere visionary. He seldom allowed his dreams to outrun by much the experimental successes he had already achieved in secret. And there were occasions upon which he translated experiment into fulfilment at speed and with real daring. Nothing was a greater spur to him than the knowledge that rival inventors were hard upon his heels, and it was his passion to be first in the field that drove him to bring television to the stage—another of his inspired dreams—in July of 1930.

I was intimately associated with the resounding triumph of John Baird's "big screen," for I stood before it on the stage of the London Coliseum when first it sprang to life amid the hushed astonishment of a huge audience. But though that occasion was indeed a landmark in the history of television's development, I was personally less thrilled by it than by the Derby broadcast nearly a year later.

For I knew that Baird's confidence in his "big screen" was justified. I feared nothing but a technical hitch, whereas when we televised the Derby the visual broadcasting of outdoor events was completely in its infancy and the risk of failure was far greater.

Here I must recall the important fact that between 1928 and 1930 the scientists' knowledge of television was increasing every month and fresh developments were continually taking place, not only in Baird's Long Acre laboratories, but also in a dozen research centres on the Continent and in the United States.

John was well aware of this. Though he took almost no interest in the general news, he kept himself right up to date on technical progress the world over and, having been the first man on earth to transmit vision, he was desperately anxious to retain his lead in every new development.

Besides, he always did believe—or always made himself believe—that any device of his invention was the best in existence. Even at this early stage some growing fear of the cathode-ray lurked in the dark recesses of his mind, but he was generally convinced that there was nothing to touch his "big screen," and in this, as the event proved, he was perfectly right.

Several other inventors, particularly those working for the formidable Marconi–E.M.I. Combine, were certainly close behind him in the race to "screen" television, but until Baird hit the headlines on 28 July, 1930, nobody had ever been able to show brilliantly televised images on a large screen. In earlier experiments a specially transparent screen had to be used in order to make the dimly projected images visible at all. Baird triumphantly overcame this difficulty.

Instead of using neon tubes and Kerr cells, he decided to arrange a large number of ordinary filament electric bulbs to form a screen. At the Coliseum there were 2,100 of them so that they resembled the "dots" in a newspaper picture. Lit up in incredibly rapid succession and alternation, they reproduced the likeness and movements of the

person who was being televised in the Long Acre studio.

Baird had actually filed a patent for this device seven years previously, but owing to his preoccupation with other inventions he did not get down to this one immediately, and when he did finally tackle the practical difficulties it involved he had to give a great deal of experimental time to them. His finished screen looked very like a large honeycomb. It measured five feet by two and each of the 2,100 peanut-type lamps was fitted into a small cell. The front of all these cells was covered by a sheet of ground glass.

The apparatus had proved as costly as it was intricate, for every lamp in the screen had to be connected to a separate bar of a gigantic commutator, which switched on only one lamp at a time, but, as its contact revolved, illuminated all of them by turn. In order to keep within "the permanence of vision"—that fraction of time in which the human eye *retains* every visual impression—the contact had to switch on the full total of 2,100 lamps in one-twelfth of a second!

Although Baird had given a laboratory demonstration of television "talkie" transmission on one of his small home televisors twelve months previously, he was in an agony of apprehension about the success of his "big screen." For some time before the Coliseum show he was rushing from the laboratory to the office and home again and continually exhorting his grand team of technical colleagues to work faster. He was no slave-driver in the ordinary sense of the term and all his colleagues and assistants held him in great affection. But once he was hot on the trail of any fresh development he could think and talk of nothing else, and he could not understand why everybody else was not as excited, as devoted and as tireless as himself. Toiling electricians and mechanics would look after his tousle-headed figure with wry amusement. He was always asking them: "Well, how's it going? What have ye noo?" but he never expected much in the way of an answer, for the dreamy eyes behind the glasses could take in every mechanical detail at a glance.

As I have said before, Baird, who lacked self-confidence in so many other things, was always confident about the ultimate success of his inventions. But he was terribly worried in this instance because he had so little time and was taking so big a chance. The importance of getting ahead of all competitors became an obsession with him. He knew that his apparatus was not entirely fool-proof and that it needed improvement in many small details. But he dared not wait to achieve the near-perfection which was always his ambition. Faulty or not, the big screen had to be lit up on the appointed day. And he realized not only that this was his opportunity to put over an exceedingly important development of television, but also that, if he were to disappoint the expectant public, his failure was likely to prove disastrous.

Curiously enough, I was not particularly anxious myself, though as usual John had left all the business and exploitation end of this notable experiment to me. I cared nothing about office titles, but I had to be given some standing and so I had consented to become "the Director of Baird Television Programmes." And it was in this capacity that I at last induced Sir Oswald Stoll to put our "big screen" on at the Coliseum. Stoll, of course, had always been a staunch supporter of British enterprise and he had also been quick to appreciate the potential importance of television. Indeed, he had been a good friend to us from the start, but even so it had not been easy to persuade him to give this experiment a chance in his beloved Coliseum. If it had proved "a flop" Stoll would have felt it a blow to his personal reputation. Nevertheless he took the risk and then we were all in it together.

Banking on success, I went all out for "big names." For the first week of this show I managed to "book" the then Lord Mayor of London; the First Lord of the Admiralty; Miss Ishbel MacDonald, daughter of the former Labour Prime Minister; the Minister of Transport; Bombardier "Billy" Wells, one-time British heavyweight champion; "Young" Stribling (the fighter of the moment); Miss

Ruby M. Ayres, the popular novelist, and many other notabilities of the period, to appear before the transmitter in our Long Acre studio. None of them failed us.

Besides my other duties I had to be the announcer and I shall never forget the eerie sensation I experienced when, making my first short speech, it occurred to me that the crowded house I could not see would not only be listening to every word I uttered, but would be *watching* my every movement. Or else, hideous thought, that nothing would get through to the Coliseum at all!

If only I could have witnessed what actually happened how delighted I should have been.

Immediately the first show was over, John Baird came rushing round to the studio to tell me about it. His eyes were alight with triumph; his clothes, which never seemed to fit him, flopped more loosely than ever. He exploded into words.

"Ach, Sydney, ye dirrty dog! D'ye know what's happened? You've frighted some of them into fits!"

Then he burst into a roar of laughter and told me how a slightly tipsy fellow, confidently expecting to see a troupe of dancing girls appear on the stage, had wandered into the stalls just as the "big screen" lit up. And instead of all the prancing lovelies he had hoped for, he saw me, pointing my finger directly at him!

"He just took one look at ye'r face, Sydney, heard ye talking to him, and got to his feet. 'My God!' he bawled. 'I'll never touch another drop!'"

John could never resist a joke at my expense, and I laughed heartily at this one. No doubt he had embroidered the yarn, but it was a great story none the less. And, above all, it told me better than anything else could have done that John's "big screen" had been "a smash hit."

It may be hard at this distance of time for readers to appreciate the thrilling effect upon that Coliseum audience of the first "Tele-Talkie" ever to be shown in public. Let me, therefore, quote here from two of the many Press reports which were published at the time. They were

written by "hard-boiled" newspapermen, not easily impressed even by anything "new."

"There is no doubt as to the thrill which one receives on seeing for the first time a television demonstration of this kind," said *The Sphere's* representative. "When the television number was announced, the theatre was plunged into darkness. Then, in a setting of black curtains, we suddenly saw the screen upon which the features of various people, taking their place before the transmitter in Long Acre, were shortly to appear before us.

"A demonstrator, telephone in hand, informed us of the nature of the invention. Then a human face—Sydney Moseley's—appeared upon the screen and began to speak to us. The image wavered up and down, but gradually steadied. . . . There was a kind of musliny effect all over the screen, but through it one could distinctly make out the features of one well-known personage after another. One could not only hear them speak, but see their lips moving.

"The face on the screen turned from right to left. 'Would any member of the audience like to ask a question of the speaker?' said the demonstrator. 'Tell him to put his hand up,' cried a voice from the darkness of the auditorium. The request was telephoned to Long Acre and immediately the speaker put his hand up to his chin in response to it. The movement was perfectly visible to every part of the house and, in spite of some surface defects, the screen rendered all the various tones of the face before us."

Rather more dramatic was the report published in *The Referee* which began with the strictly truthful statement that "History was made at the Coliseum yesterday, when, for the first time in the world's story, a talking picture was transmitted by television; and seen, and heard, and loudly applauded by vast audiences in the famous theatre in St. Martin's Lane.

"On a screen measuring six feet by three," this report continued, exaggerating nothing but the size of the screen itself, "there appeared—more than life-size—the head and

shoulders of Mr. Sydney A. Moseley, Director of Baird Television Programmes. Mr. Moseley's screen figure then proceeded to give an extraordinarily interesting exposition of 'Tele-Talkies.'

"The effect upon the packed auditorium was electrifying. The sound and the picture were transmitted together by land line from the Baird Television studio in Long Acre. Synchronization was perfect.

"Thus a new era opened yesterday at the Coliseum. For never before had a theatre included a 'Tele-Talkie' as a part of its programme."

I could go on quoting almost indefinitely from the great chorus of Press enthusiasm, but once again I find no purpose to be served by mere repetition. Possibly some of my journalistic colleagues, dazzled by the sheer wonder of this new *fact* in the world of communications, hailed it with exaggerated praise, but none of them overestimated and few of them fully apprehended its potentialities.

It is understandable, of course, that I felt compelled to see what was coming over from the receiving, as well as the transmitting, end of our apparatus, and that is why, at some sessions, audiences were particularly impressed to see me standing—in my all-too-solid flesh—upon the stage, after they had seen me by television, for after my opening announcement at the Long Acre transmitter I dashed round to St. Martin's Lane to see that things were going well there. And I can say without prejudice that I was pretty well satisfied with the results we had achieved. I had grown used to "miracles" and thus assessed them more calmly than some of my colleagues had been able to do.

But, in sober truth, Baird's "big screen" was a magnificent success. The incoming television signal from Long Acre was first amplified and then fed to the revolving commutator, which switched on every lamp in its turn. The current was, of course, strong at a bright part of the picture and weak at any dim part, so that the little "peanut" lamps were bright or dark accordingly, and the picture was thus built up of a mosaic of lights of differing intensity.

Baird's device had one great advantage over every other which had then been tested even in laboratory experiments. It lay in the fact that the lamps in our screen did not fade out instantaneously. They glowed for an appreciable moment after extinction and, therefore, instead of the picture being shown in very sharp and harsh detail, its whole effect was softened and the continuity of movement well preserved. The Baird "big screen," indeed, had remarkable brilliancy combined with a minimum of flicker. It did not, in my frank opinion, produce a picture quite as clear or quite as steady as did the first talkie films, but it *did* convey the startling effect of the subject's living personality. To the technical experts it was a marvel of applied technical knowledge; to the man in the street it was a miracle in the course of perfection.

I will not here enlarge upon the publicity value which the Baird Company derived from the Coliseum's exhibition of its "big screen" achievement, but I do not think this chapter would be complete without my quoting two letters, which were sent to me personally shortly after our success had been confirmed.

1 Balderton Street, W.1.
6 August, 1930.

My dear Moseley,

I was at the Coliseum with some friends last night, and want to congratulate you very heartily on the successful results you have achieved with practical television in this early experimental stage. Congratulations also on your excellent personal share in the showmanship of this performance.

When you asked for questions from the audience, I was tempted to inquire: "Why have you not answered the letter I wrote to you a week ago?" But I hadn't the pluck. I sent that letter to you by hand early last week. Perhaps, by some mischance, it failed to reach you, in which case I shall be glad to repeat the contents. I know you are a very busy man these days, but I should like to have your views on the suggestion I made. With all best wishes,

Yours sincerely,
(*Signed*) ARCHIE DE BEAR.

I can't now remember just what Archie's suggestion was, but I know it had something to do with the possible exploitation of what *he* had instantly recognized as a great forward move in the world of communication and entertainment. But let that pass. Here is the second relevant letter, which I feel bound to reproduce:

The British Broadcasting Corporation,
Savoy Hill, London, W.C.2.
31 July, 1930.

Sydney A. Moseley, Esq.,
Baird Television Limited,
133 Long Acre, W.C.2.

My dear Moseley,

Very many thanks for the tickets for the Coliseum. I shall be very interested to see this first really public demonstration.

It is very good of you to suggest that we should go behind when the performance is over. *I think, however, that the best plan will be not to bother any more about this, because I think it is rather unlikely that we shall be able to stay until the end, and, in any case, I don't want to put you to a lot of trouble.*

Again many thanks.

Yours sincerely,
(*Signed*) N. ASHBRIDGE.

The italics are my own. Mr. Ashbridge thought it unlikely that he would have *time* even to look over the biggest single invention which had ever rocketed into his particular world!

Do I need to point the contrast between these two letters from such different men, living in such different sections of the same community upon which the public's entertainment and instruction so increasingly depend?

Let it suffice to point out that from the live theatre a live man of established reputation eagerly sought to learn all the details of the new invention, which might so soon and so completely transform the art of stage and screen. Whereas there came from the B.B.C. of that distant epoch nothing but official civilities.

CHAPTER TWELVE

THE DERBY TELEVISED

"OUTSIDE BROADCASTING"—the term applied to television transmission from mobile units usually operating in the open air—was first successfully accomplished by John Baird from a specially fitted van in Long Acre, London. And thereby hangs the tale of the first Derby ever to be *seen* across space and through walls by an audience which had not needed to leave home for Epsom Downs.

In the previous chapter I described how Baird, flushed with the triumph of his first television broadcast through the B.B.C., had predicted that the day would soon come when he would be able to televise the Derby. The Press gave considerable prominence to that boast and it brought down upon his devoted head an avalanche of sceptical and occasionally cruel comment. He was always sensitive to scoffing of this kind and justifiably resentful of it. But he rarely made direct answer to his critics, rarely licked his wounds in public, and never, which is more important, lost faith in himself and his invention.

The van which trundled into Long Acre in May, 1931, and came to a halt outside our laboratories was Baird's first rejoinder to the scoffers. It aroused much curiosity among the passers-by, who all wanted to know "what the darned thing was for." If they had been allowed to look inside it they would have found a full transmitting apparatus by no means unworthy to have been the father of the modern mobile units.

By this time Baird had discarded the famous Nipkow disks which had served him for so many years in his early experimental work. He had replaced them by a new system

of "scanning" with a mirror drum. This device was not his own invention. Several inventors had used, or claimed to have used, something of the sort many years before and the Americans were experimenting with it at the time. But Baird improved upon the old theories and, with the help of his technical assistants, produced a working model.

Instead of the Nipkow disk, with its thirty holes, this drum had thirty mirrors set round its rim, each at a slightly different angle from the one before it. As the drum revolved at high speed these mirrors "scanned" the scene to be televised and did so much more effectively than the Nipkow disks had done. Indeed, they virtually made outside broadcasting possible and, in course of time, the B.B.C. came to adopt them.

Taking care not to let any news of his outdoor experiments leak out too soon into the newspapers, Baird satisfied himself at last that he *could* transmit recognizable pictures of the Derby. I then got to work on this project. My first approach was to the B.B.C. on 19 May, 1931, in the following letter:

My dear Gladstone Murray,

You have probably heard that we are asked from time to time to give up our half-hour transmissions and have willingly done so.

I think, in the circumstances, if you could arrange to give us five or ten minutes on Derby Day for a television broadcast during the race it would more than make amends. Do you think that this could be arranged with Mr. Ashbridge?

Yours sincerely,

SYDNEY A. MOSELEY.

In this letter I enclosed a brief memorandum explaining the programme we had in mind. "We propose on Derby Day," the memo ran, "to send an image from Epsom Racecourse to Long Acre of horses passing the winning-post. We shall also be sending a speech accompaniment on another telephone line. Prior to the actual race, we also propose to transmit the image of Steve Donoghue and, it is hoped, of at least one other celebrity.

"The race finishes at approximately three-fifteen and our programme will commence at three o'clock.

"We understand that the B.B.C. is transmitting a running commentary on the race, so that all we should require to send out through the B.B.C. would be the image and what we desire is to send out the television signal from three o'clock to three-thirty on one wavelength, preferably the Regional. The image signal would be transmitted to the B.B.C. through our usual channels from Long Acre."

To my letter and memorandum Gladstone Murray sent this reply:

My dear Sydney Moseley,

Experimentally Televising the Derby

Thank you for the note setting out your proposals. As already intimated, the B.B.C. is anxious to assist your development work within the limits imposed by prior service obligations. Accordingly, you could not have the London Regional wavelength for your Vision transmission in connexion with the Derby. It might be possible, however, to arrange for the London National wavelength, i.e., 261 metres, to be placed at your disposal for the Television signals from approximately 2.45 to 3.15 p.m. on Wednesday, 3 June, providing the following conditions were fulfilled:

(1) that the speech accompaniment, which of course will not be broadcast, would be on a telephone line quite separate from any telephone line rented by the B.B.C.

(2) that the B.B.C. engineers would be satisfied in a preliminary test that nothing involved in this Television transmission should in any way interfere with the normal service transmission of the Running Commentary.

Yours sincerely,
GLADSTONE MURRAY.

Other correspondence had been and was exchanged and sundry tests were made before a final agreement was reached with the B.B.C. on this basis, but we were all very happy in Long Acre to have won this important opportunity.

On Derby Day our van was taken to Epsom and

stationed almost opposite the winning-post. It was connected by telephone direct to our London studio and from there the signals were to be passed through the usual B.B.C. channel to the Brookmans Park transmitter.

By this time, of course, the Company's future prospects were heavily committed to the success of this unprecedented demonstration, for the moment we had reached agreement with the B.B.C. it was given nation-wide Press publicity. Baird's critics held their peace, abiding the event, but many of his friends were extremely anxious on his behalf and admonished him sorrowfully for his rashness in announcing so widely his ambitious project. I shared their anxiety but *not* their deprecation of the advance publicity, much of which I had procured by my own efforts. I have always believed that, when it does become necessary to "take a chance," it is better to do so boldly and with a stout heart. And Baird, too, felt that if he had to be metaphorically hanged, he might as well be hanged for a sheep as for a lamb.

Not that we were taking any bigger chance than was absolutely necessary, for we had made preliminary trials from Epsom Downs with encouraging results. On Derby Day itself Baird went down to Epsom with the van and supervised the whole installation at that end. Then he returned to Long Acre studio and took charge of the row of receivers there for the actual transmission. During that transmission, and all through the experiments which preceded it, he had been most loyally and capably assisted by his technical staff, notably including Lieut.-Commander W. W. Jacomb, his brilliant chief engineer; J. D. Percy; T. H. Bridgewater and D. R. Campbell.

It would be an exaggeration to say that this first Derby broadcast went through without a hitch. There was a good deal of "interference," a lot of flickering and the images themselves were of relatively poor definition. But the viewers *did* see the finish of the race and John Baird had justified his boast.

The Press fully recognized the importance of the event

and hailed it with perhaps more enthusiasm than the technical results deserved. And yet the newspaper correspondents who went to the Derby that day to watch the transmission, and their colleagues who "looked in" from London, showed admirable judgment in their appreciation of the fact that the thing had been done at all.

J. Ernest Jay, for instance, the special correspondent of the *Daily Herald*, struck exactly the right note when he wrote: "The result astonished us all. *We had found the stepping-stone to a new era in which mechanical eyes will see for us great events as they happen and convey them to us in our homes.*... We heard the shouts of the bookmakers —and we saw them waving their arms in frenzied excitement.... We could see the horses passing in file; we heard them named by the announcers as they passed. We could almost recognize their jockeys" (I certainly couldn't do *that!*).... "As we watched we saw the favourite flash past slightly ahead of Orpen, with Sandwich, Goyescas and Gallini close behind."

The italics are my own. I have used them to stress this example of the immediate recognition by the Press of the vast potentialities of Baird's demonstration. There is no wonder in that; the wonder is that the B.B.C. should have been so slow to appreciate these potentialities and to seize its own unique opportunity to develop them.

Gradually, however, even the most sceptical were won over, if not to the support of the Baird system as such, at least to recognition of the importance of television itself. The first Derby broadcast captured the imagination of the general public so strongly and so fired the enthusiasm of amateur experimenters as to impress even the B.B.C. Two months afterwards, indeed, we were offered the occasional use of the Corporation's No. 10 studio, close to Waterloo Bridge. We gave several transmissions from there.

A much more co-operative attitude was displayed to us thereafter, and by the time the next Derby was run, in 1932, television had become generally recognized as something far more important than a mere novelty. Unfor-

tunately we were still severely handicapped by the fact that there was no place for our programmes on the ordinary broadcasting wavelengths, which were already carrying all the traffic they could bear and were allocated on the narrowest possible margins to broadcasting stations the world over.

At least we made the best of the limited opportunities available to us and there is no doubt that we scored a really sensational triumph with the second Derby broadcast, a feature of which was the special transmission to the "big screen" we had installed at the Metropole Cinema, Victoria. Here the picture of the race was vividly shown to a huge audience, and our screen on this occasion was eight feet high by ten feet across.

Arrangements for this broadcast did not differ much from those we had made before, though Baird stayed with Percy at Epsom and Campbell and Bridgewater were left to hold the fort at Long Acre during the preliminary tests. Having checked all the preparatory work, Baird decided this time to take charge of the installation behind the big screen at the cinema during the race itself. And Campbell, bless his heart, ignored official restrictions and stepped up the permitted voltage through the land-line from three to thirty volts!

His decision to defy the authorities was fully justified by the results. The first Derby broadcast, as I have said, was much impaired by interference with the feeble voltage we were compelled to use. Campbell was terribly afraid that local electrical interference might wreck this one, too; it had almost done so in one of the preliminary tests. Without saying a word to anybody, he increased the voltage steeply during this test and no harm was done. It seemed perfectly safe, and consequently, directly the horses were "off," he switched on the full thirty volts. This produced a clearer picture than had ever been seen before, both on the cinema screen and on the home receivers. And this slight risk Campbell had taken left nobody a penny the worse, or for that matter any the wiser.

Once again the Press came out with big stories and banner headlines to acclaim this demonstration, and once again I have selected for quotation the *Daily Herald's* report from my collection of newspaper cuttings because it gives a particularly fair summary of the facts. This report was published on 2 June, 1932, and ran as follows:

"With five thousand people in the Metropole Cinema, Victoria, S.W., fifteen miles from Epsom, I watched the finish of the Derby, while thousands on the Downs saw nothing of yesterday's great race. It was the most thrilling demonstration of the possibilities of television yet witnessed. *It made history.*

"So distinct was the scene shown on the large screen that the watchers forgot the race in face of the miracle that brought it before their eyes. Many of us can remember the thrill of those first 'moving pictures.' They flickered and spluttered, but out of the haze we saw men move about. Television, as we saw it yesterday, is in that stage, although the flicker is not so bad as those early films.

"We saw the horses quite distinctly as they came up the straight, April the Fifth ahead, with Dastur and Miracle close behind. We could discern the black-and-white figures of the crouching jockeys and distinguish them by the shapes of the colours they wore! As we sat in that darkened theatre distance was annihilated. We were the first people in the world to see such a spectacle on a cinema screen. 'Marvellous! Marvellous!' shouted men and women around me.

"While the excitement still raged on the Downs we were cheering Tom Walls' success, and then we came back to earth. Mr. J. L. Baird, the inventor who made the marvel possible, stepped on to the stage and received a bigger cheer than April the Fifth. He was too thrilled to say a word!"

The last sentence was literally true. Poor old John could only stand in the limelight and bow to the tumultuous applause. He was always apt to be tongue-tied on great occasions, and on this one he must have been particularly overwhelmed, not only by the enthusiasm of the audience and the unexpected brilliance of the results obtained, but

also by the dazzling prospects which he knew this success might open up to him personally and to all his associates.

And they were dazzling at that time, for the general public was becoming "television-conscious" at last. Judging by the sales of the Baird Televisor alone—this was the first commercially produced receiver and there was then no other on the British market—the total of viewers had risen to approximately ten thousand and the demand for new sets was increasing daily. Bigger and better pictures were wanted and much more television time on the air, but Baird was confident that the definition of his projected images could be greatly and speedily improved and he was already far advanced experimentally towards a solution of the crowded wavelength problem by the use of ultra-short waves. He had, in fact, given a public demonstration of short-wave transmission, which he claimed to be the first in the world, some two months before the 1932 Derby was run.

The time was not yet ripe for short-wave transmission of television programmes by the B.B.C., but soon after the Derby broadcast the Corporation did decide to allot occasional afternoon periods to vision programmes in addition to the late-night transmissions.

The Corporation had decided, in fact, to make a virtue of necessity. Its engineers were still sharply critical of the thirty-line screen and some still displayed a marked tendency to sniff at the introduction of television itself. But the miracle had been performed too often for officialdom to ignore it any longer. Parliament had been roused to its importance and the public would not be denied its right to look as well as listen.

Systematically, therefore, albeit reluctantly, Broadcasting House prepared to adopt Baird's brain-child as its own. A complete transmitter was ordered from our company and installed in Studio BB, three floors below Portland Place, a lavishly equipped room which had previously been reserved for dance-band broadcasts and the like. New specialists were engaged to "put television over" in the manner

approved by the hierarchy. Douglas Birkinshaw, a young Cambridge science graduate, was appointed research engineer for television, and he supervised the arrangements which were made to run a few experimental but regular transmissions each week. Campbell and Bridgewater were sent on loan from Long Acre to Broadcasting House and between them they designed or constructed most of the apparatus which was used. Birkinshaw soon realized that he would be completely at a loss to handle the new service without their assistance. And so, in due course, the B.B.C. took them on its staff, to its own great benefit and to our company's loss. We did not resent that loss, however, because we could make no headway at all except by taking advantage of whatever concessions the broadcasting monopoly was prepared to make us.

Baird, therefore, consented to appear in person in the first of the B.B.C.'s own television programmes, which was broadcast on 22 August, 1932. Roger Eckersley, who had been made Director of Programmes, announced him briefly in the following words:

"Although television is still feeling its way, it has such potentiality that the B.B.C. is lending as much of its time and resources as is consistent with the normal demands of the programmes. This is Mr. John Baird . . . etc., etc."

They had to mention Baird's name on that occasion, but even then only to the small audience of viewers. They mentioned it again on the general programme, as I have said, when Baird died. I may be mistaken, but I do not recall any other reference to him by name in any main broadcast or news announcement.

Perhaps it is not to be wondered at. When one adopts a promising infant it is convenient to forget the child's natural father as soon as possible.

Ah, well; the prophets do not go unhonoured except in their own country and, as I shall show later, John Baird was at least partly to blame for his failure to retain his commanding leadership in the television field and for his even more tragic failure to reap the rewards he deserved.

CHAPTER THIRTEEN

BAIRD, THE MAN

No man can see himself whole; he can but stand before the mirror of his mind and twist and turn to discover different aspects of his essential ego. And since no one can truly claim to know himself, how much less can his biographer claim to portray him fully as he was? I make no such claim and yet I believe I did know John Logie Baird better than any other of his friends could have done; and better, in some ways, than he ever knew himself. "O! Wad some power the giftie gie us . . . To see oursel's as ithers see us. . . ." Yes, but would that help much; for each sees us from a different angle, a different mood, in different circumstances. In effect we are all enigmas to ourselves and to others. This is borne out particularly in the case of Baird.

Keenly aware that some of my impressions of him must be largely subjective, I took pains before writing this book to check my estimate of him against those of other people who were also closely associated with him. I found a considerable measure of agreement among us all in regard to his lovable character, his eccentric habits, his absorbing interest in his work, his absent-mindedness and his kindness of heart. The composite picture which emerges is at least a recognizable portrait of the man himself and I hope that it has captured something of his vivid personality.

How curious it is, nevertheless, to see an old friend through another's eyes; how strange to find that this other gaze was focused upon some detail of his character or appearance which had either escaped one's own notice or left upon one's memory a very different impression. We never see the entire picture.

In Baird's case, nobody, I think, could have taken him for what is commonly known as "a man of the world," but why should Rebecca West and John van Druten, for instance, having had no more than a few minutes' talk with him, have reached the conclusion that he was *obviously* "the man who sows the seed and doesn't reap the harvest"?

Miss West is an acute and brilliant student of human nature; while Mr. van Druten is a dramatist who specializes in character studies. Yet I am baffled to understand why both of them should have been left with this particular—and, as I think, distorted—impression of my old friend's unworldliness.

Let me here quote the letter which Miss West kindly wrote to me after I had asked her whether she could remember anything of special interest about her meeting with Baird in his laboratory.

Writing from her home in Bucks, August, 1951, this is what she says:

Dear Mr. Moseley,

I have very distinct recollections of my visit to Long Acre and I had not forgotten that you were there. I remember very well; John van Druten and I went together, and we were impressed by John Baird as a true genius and very delightful to meet. And going away through the streets round St. James's on the way to my home we paused to look at some beautiful china in a near-by shop and at an impressionist picture in the window of an art gallery, and we wondered if we could be successful enough to buy such things in our time. And we reflected that while John Baird ought to be able to buy the earth with his invention, he would actually be less likely to buy what he wanted than either of us, because he was so obviously the man who sows the seed and doesn't reap the harvest. We had each got that in the laboratory and were distressed to find that the other thought so, too. I think John (van Druten) would confirm that bit of funny crystal-gazing. That is really the sum of my only contact with John Baird, and it has come back to my mind sadly many times since.

Yours with all good wishes,

REBECCA WEST.

"So obviously" are the significant words in this letter. Perhaps, indeed, what Rebecca West and John van Druten saw was rather too obvious. They saw "the typical inventor," the dreamy-eyed, tousle-haired, carelessly dressed scientist, devoted to his research work.

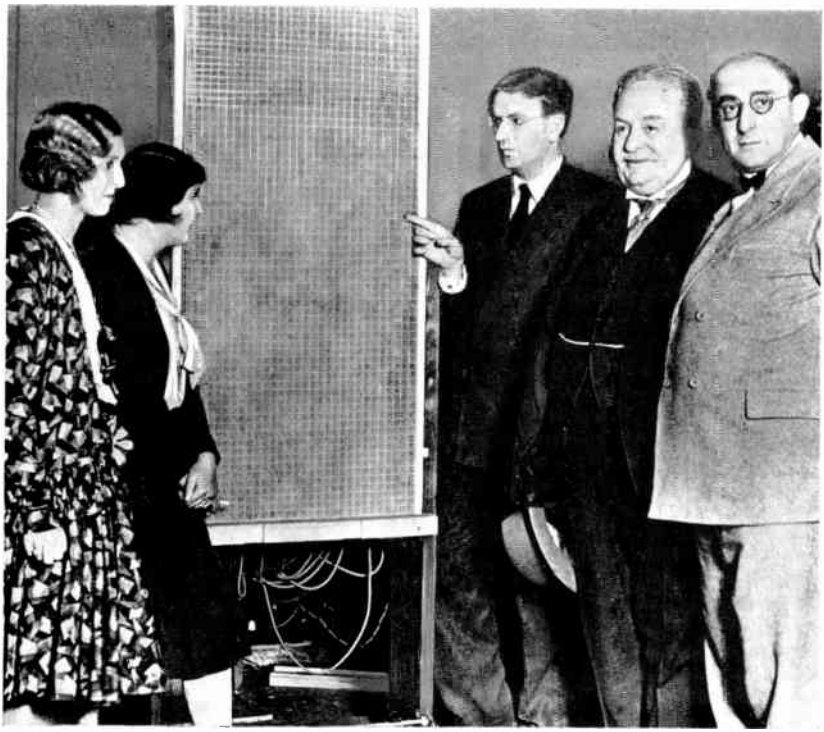
In fact, as we have seen, Baird was by no means indifferent to money and worldly success. If he did not reap an adequate harvest from the seeds of new knowledge he had sown, at least he garnered some of the golden grain and, as I have shown, he could have retired with a large fortune had he accepted a financier's offer. I do not suggest that his air of dreamy detachment from practical affairs was assumed, or that he deliberately posed as the "typical inventor" destined to victimization, but I have no doubt whatever that he occasionally dramatized himself in this role. He *was* careless in his dress, he *did* have a shock of unkempt hair and his absent-mindedness *was* both genuine and notorious. But he also had a shrewd eye to the main chance, a very good opinion of himself and—thank God!—a grand sense of humour.

Take that shock of hair. Women teased him about it and men sometimes made rude remarks, but John would not have subdued it on any account. And thereby hangs a tale which I cannot forbear to tell.

We were both sun-worshippers, John and I, and that is how it came about that during one spell of dismal English weather we took a holiday together on the Riviera. The farther we travelled south, the more his spirits rose, and when we arrived at Cannes—where people with overdrafts had no right to be!—he was in the mood to ignore his business worries. And although cables, telegrams and telephone calls began to shower upon us, we dismissed them summarily and set out in brilliant sunshine to walk to Golfe Juan.

That was the beginning of a carefree spell such as Baird had not enjoyed for many years. It liberated his mind from the obsession of television, and we had long talks about religion, the pursuit of happiness, the purpose of this life

Although the actor has told the author that his association with Baird was not quite as close as some made out, nevertheless, "as one Scot to another," Jack Buchanan readily gave Baird what assistance he could. He is shown in one of the earliest experiments on the roof at the Baird laboratories in Long Acre, while Baird himself watches the engineer operating the televisor.



On the roof of the Long Acre premises Baird built a hut which he used exclusively for the early experiments on a large "bank of lamps" television screen for use in cinemas. On the occasion when this photograph was taken the artistes on the left were televised by this method for the first time and Baird demonstrated the new screen to Sir Edward Manville (*right, centre*) and Sydney Moseley. Later a larger screen, built on this principle and employing many hundreds of small lamps, was used with marked success for public showing at the Coliseum Music Hall, London.

and the riddle of a life to come. In short, we yarned like men usually do when they can forget "shop" and we did some fooling to remind us of our youth. I am not averse to a moderate amount of walking myself, but when I do walk I like to step out briskly, and John's deliberate dawdle used occasionally to exasperate me. It was fruitless to ask him to "step out!" One day, therefore, without urging him to hurry up, I began to quicken my pace, talking over my shoulder as he lagged behind. Presently he was puffing heavily. I took no notice, stopped talking and stepped out more smartly than ever, without a glance behind.

Soon I was out of earshot and, laughing to myself, hurried on until my pace was almost a run. I would "lose" him. That would teach him to dawdle. After an hour of this I was perspiring and rather puffed myself and well content to rest and take a breather on a grassy knoll. I had barely taken my handkerchief out to wipe my forehead before I heard a gleeful laugh. Looking up, there was old John standing in front of me, almost as fresh as a daisy!

"Ah, Sydney, you dirrty dog," he exulted, "so you thought you'd fool me—thought you could leave me behind, did you? But here I am, you see. Ye're tired maybe?"

And there he certainly was, rather stout, perhaps more winded than he let it appear, but crowing with satisfaction that he had "put one over on me." The fact is, of course, that he could walk briskly enough when he chose to do so. But I never knew him to choose to do so again.

That brings me back to the story I set out to tell about Baird's hair. It had grown longer than even he cared to wear it, and so, a day or two later in Cannes, he decided to have it trimmed, and I went with him into the barber's shop to act as interpreter. My knowledge of French was limited, but Baird, who was never good at languages, could speak no French at all.

Directly he was settled in the barber's chair—with the white cloth tied behind him and his back to the mirror—an impish urge came upon me to make sure that, for once

to trouble. Being scrupulously careful of his personal freshness, he used to change them two or three times a day no matter where he happened to be or what the occasion.

More than once I saw him stoop down at a board meeting, unlace his shoes, peel his socks off and, taking another pair from his pocket, drag them, more or less, on to his feet. He thought nothing of it and it did not embarrass him in the least. When he and I had a special problem to discuss we stayed on after the dignified members of the board had left and we sent out for fish and chips. What laughs we had at those times!

There is no doubt that John liked to mix with what he was pleased ironically to term "the gentry," but either intentionally or without realizing it he often behaved in a way calculated to shock or infuriate them.

If some important "City" man asked him home to dinner, John would be quite likely to walk with his host along his select street in his select suburb, eating plums out of a paper bag and throwing the stones into the neat front gardens they were passing. Or he would pull from his pocket a box of liquorice "all-sorts," of which he was inordinately fond, offer it to the scandalized magnate by his side, take the inevitable refusal with a shrug of disdain and finish the walk munching steadily until his hostess met him in the flower-bedecked hall of her spotless home.

Caring not a jot what people thought of his clothes or his eccentric behaviour, Baird was still extremely sensitive about his red nose. It was not really red, but it did become pinkish, particularly after meals. When I asked him playfully one day whether he had given up drinking because of this nasal danger-signal, he was not at all amused. In fact, he suffered from some form of chronic catarrh which he made pathetic efforts to alleviate by continually sniffing at a mixture of ether and menthol, compounded by himself in his own laboratory.

As a young man in Glasgow he had become accustomed to drinking fairly heavily with the tough young fellows around him, and he had occasional hearty alcoholic "sprees"

even after he had settled down to the main work of his life. Then a doctor advised him that it would be much better for him to do without any alcohol at all and he became a total abstainer from that day.

I do not wish to suggest that John was ever in danger of becoming an alcoholic. Nothing of the sort. I am simply stating that he did not mind "taking a fair load aboard" when he felt in the mood to do so, and the fact that he suddenly and finally became a total abstainer proves, I think, that he had unusual strength of mind. In later years, when, for business or social reasons, he had to be in the company of men who liked a few drinks with their meals, John never said that he was a teetotaller. On the contrary, he would let himself be served with the aperitives, wines and liqueurs appropriate to the occasion, but I never saw him take so much as a sip from any glass. One after another they were taken away untouched. It was sheer waste of money, but a grand display of moral fortitude.

At dinners of this sort Baird often found it difficult to keep his attention fixed on a general and "gossipy" conversation. He would begin to fidget in his chair, feel in his waistcoat pocket for a stub of lead pencil, and then, furtively at first and gradually with total concentration, he would scribble equations, formulae and diagrams on the table-cloth. The manager of one restaurant we used to frequent told me ruefully, when I looked in for a meal during the writing of this book, that he kept several of these cloths for some years, hoping that they would one day become valuable mementoes of a genius. By some mischance, however, they were all sent to the wash in the end and consequently nobody will ever know what brilliant new ideas may thus have been lost to the world.

Though it may seem astonishing, I must maintain that Baird was something of a snob. He affected a contempt for rank and title and was certainly not overawed by either in the ordinary way (though I have described his curiously abashed manner in the presence of John Reith, who had been an important figure in his student world), but he

admired *success* in any field and was particularly impressed by academic distinctions.

Thrown so often upon his own resources, since he had few intimate friends, Baird was happy enough when he had work to do, but miserable if he had to spend his leisure in solitude. He hated to travel or to dine alone, perhaps because he had been obliged to do so many thousands of times in the days of his poverty. Cold weather chilled him not only in body, but in spirit. The first time I saw him in a furnished bed-sitting-room I found his bed piled with overcoats and mufflers, and even when he was stopping in a luxurious hotel there were never enough blankets for him. Instead of ringing for some more, he would heap his garments on top of the eiderdown and then creep gingerly between the sheets. This, with the electric fire on, made the room a veritable inferno; but he loved it.

Having known real poverty, he sought luxurious comfort as soon as he was able to afford it. He had a contempt for "the bawbees," was generous to a fault and spent his money freely on creature comforts. Hard-headed though he could be in a business deal—on paper, at least!—he held avarice in horror. Once, when we were walking down Fleet Street to the Strand, he fumbled in his pocket, took out a handful of small change—and threw it down the drain! I stared at him in wonderment. He chuckled, coloured a little and then offered a halting explanation: "I haven't done that for a long time, Sydney," he said; "it's just to get some of the Scots 'meanness' out of my system."

Who could help loving a crazy fellow of that sort? Certainly not I. Many and many a time a wistful note in one of his terse invitations induced me, often at great inconvenience, to travel miles with him so that he should have company at dinner. During the time he was living in his expensive and historic house on the top of beautiful Box Hill, with only his maid and his manager, Robertson, to share it with him, he would say: "What about dinner tonight, Sydney?"

That meant a hired Daimler to take us into Surrey, wait

for me until at last John let me go, and take me back all the way to my own flat at Primrose Hill. But John, when he was in funds, did not care in the least about that sort of expense. He needed company as a thirsty man needs water.

Where Baird's moral fibre seemed always to break down was in the board room of his own companies. There he was totally unable to stand up for his rights. Before I joined the board of Baird Television myself, I used to sit up with him for hours listening to the torrential outburst of his grievances. And then, when he had exhausted his magnificent stock of invectives I would coach him patiently in the speech he ought to make to his co-directors. Rehearsed again and again until he was word-perfect, old John would square his shoulders and march out of the office with a light of purpose in his usually dreamy eyes.

And at first I used to say to myself: "Ah, this time at least he will give some of them a real dressing-down." Alas! One look at him when he made his sheepish return would tell the whole sad story. "For heaven's sake, John," I would shout, "what happened; what did you say to them?"

He would give one of his characteristically deep sighs, shuffle to and fro for half a minute or more and finally groan: "Ach, Sydney! Not a wor . . . rd, not a wor . . . rd!"

Except on such occasions—unfortunately some of them were the most important in his business career—I do not think Baird could have been fairly described as a timid fellow.

A. F. Birch, who joined the Baird Television Company in Long Acre in May, 1928, as one of the first two technical assistants whom Baird appointed to laboratory duties, was staggered on the day of his arrival by his chief's calm assumption that he had only to ask for something to get it almost immediately.

Baird shuffled up to the bench where Birch was working, beamed at him pleasantly and said: "I want you to build me a ten-watt short-wave transmitter with plenty of side-band scope. Get what you need from the stores and let me have it in three days, will you?"

Poor Birch had not—at that time—the vaguest idea of how to set about the job, but thanks to the help of Sherrin, the other technical assistant, he delivered the transmitter on time. Meanwhile Baird had looked in once more, "calmly watched his fumbling efforts," and departed without a word. Birch recalls in a note to me:

"Never, in my experience, did Mr. Baird discourage any technician working for him, nor did he let us see he was discouraged himself. At the same time, he was not a lavish praiser. His was the mind, brooding aloft in its clouds of pioneering ambition, which descended to earth merely to initiate his ideas through us, whom he trusted to set out their practical interpretation.

"J.L.B. was undaunted by the appalling limitations which beset these ideas. In the same way that early radio waited for the thermionic valve, in order really to progress, so unknowingly our J.L.B. awaited the cathode-ray tube to be harnessed to his inventions, to make them commercially practical.

"He was always rather shyly pleasant to his staff," Birch's notes concluded, "and would enjoy a laugh with us on occasions. To myself, he appeared very much the genius, with his untidy shock of hair, and spectacles. *His prevailing fault, in our view, was a penchant for producing another idea for investigation before we'd reached any sort of finality on the previous one.*"

The italics are my own and seldom have I felt them to be so necessary. That tendency to hurry on from one inventive idea to another—before the first had been brought to practical fulfilment—was more than a defect in Baird's character; it was a disastrous flaw. And it robbed him of many rich rewards.

One day Baird asked his personal secretary, Miss Caffrey (now Mrs. Jackson)—"out of the blue"—to go and buy him a nightingale! It turned out that he wanted one of those little instruments sometimes used for "effects" in an orchestra. Miss Caffrey bought one for him and he started to blow it until he was almost blue in the face and nothing

happened. Then he realized that it had to be filled with water, and he blew again, splashing water all over the board-room floor.

At last the nightingale whistle emitted some pure musical notes. "Ah, that's it!" cried Baird delightedly. "I want this thing for my garden. Friends keep pestering me to let them 'hear the nightingale.' There *is* one there, but I can't make it sing. Now I'll get the gardener to whistle this toy from the shrubbery and they'll all be happy!"

Miss Caffrey found that Baird had a keen, though sometimes unexpected sense of humour, and she has reason to know how generous he was to his staff because, at a time when the Company was cutting expenses drastically, he gave her an increase in salary out of his own pocket.

But she remembers rather ruefully that "Mr. Baird was always absorbed in his work, so much so that he never knew when a Sunday or Bank Holiday was coming. He didn't even remember Christmas and, leaving the office one night on Christmas Eve, he said to one of the staff: 'Well, good night; we'll be seeing you tomorrow!'"

This was no pose on Baird's part. He really had forgotten.

CHAPTER FOURTEEN

A MATTER OF LIFE AND DEATH

NOW A STAGE was reached where it had become a matter of life and death for Baird and his companies. Cash was getting short. We had been doing considerable spending in all directions, but little was coming in. Baird's foes waited for the end that so many of them gleefully predicted. It was indeed a sorry position. The Baird Company had introduced television to the B.B.C., but instead of the Corporation's paying us, as our German confreres did, we were actually made to pay the B.B.C. for the use of their transmitter.

Could irony go further? True, we were selling television receivers—Baird had patented the name "televisor" which is far to be preferred to the ugly T.V. now in use—but the profits on these were a drop in the ocean of our expenses.

It was at this crucial stage that Baird made an inspiring suggestion to me. He refers to it in his autobiographical notes in this way: "One night" (Baird wrote), "going home with Moseley to his house at Primrose Hill, I suggested that he should get some of his financial friends together and buy Television Limited from the Receiver. The seed took root, and Sydney got busy.

"By what devious financial wizardry it was accomplished I have never been able to follow; but by some succession of obscure financial somersaults Moseley got his friends to put up the money and Sydney himself got possession of Television Limited.

"He" (Baird concluded chaffingly) "did not write *Money-making in Stocks and Shares* without knowing his subject!"

Thus, in a few paragraphs, Baird dismissed the most

stirring financial and human drama of my lifetime. He talked of "financial wizardry." It needed more than that to achieve what I set out to do at his suggestion. Indeed, the Baird Company was saved by a chain of wellnigh incredible circumstances. Well might John remark that he had never been able to understand how the miracle was accomplished. I could have told him the story as I will do now; but first let me give the "set-up."

To begin with it must be remembered that most of the Baird shareholders were essentially speculators, for the shares were worth practically anything—or nothing—according to public taste and fancy. To put it more simply, the invention itself was still in an experimental stage, and those who took up shares when issued, or who bought them later in the market, must have known that they were definitely a gamble.

I have never felt that the gambling operator, small or large, is to be regarded in quite the same way as the genuine investor. True, directors must do their best even for him, but a man who is prepared to take big risks in the hope of big profits cannot honestly complain if his bet goes wrong and he has in the end to pocket a loss.

Now as regards Television Limited, which Baird wished me to take over: this was the old parent company, formed by a few speculative enthusiasts who risked their money on television before its claims had been fully substantiated.

The position was that we had to reorganize our share capital and to this end a scheme of amalgamation between the Baird Companies was finally approved and the old parent company—Television Limited—went into liquidation.

It was, you must understand, an agreed liquidation arranged in order to treat every class of Baird shareholder with equal justice.

The reader will not wish me to go into intricate financial details. The essential fact to be understood is simply this: there was a block of a million shares in Baird Television Limited which was owned by the old parent company—

Television Limited. The market value of the shares in the public company—five-shilling shares which had been quoted not so long before as high as fifteen shillings each —had fallen to about fourpence. I don't even know whether it would be fair to say that they had a market value—so wide were prices and so erratic were dealings. In the words of the Liquidator, Mr. (later Sir Frederick) Rowland, they were "unsaleable"; at least in any quantity.

The share capital of the public company—Baird Television Limited—under the scheme of amalgamation which had fused the two first public issues into one—consisted of 2,100,000 preferred shares of five shillings each and 1,200,000 deferred shares of five shillings each, making a total of 3,300,000 shares.

In exchange for its original rights, the parent company (Television Limited, which was really a private syndicate) had obtained a certain sum in cash together with this block of a million deferred shares. Now anybody with any experience of company matters will realize that a solid vote on a million shares *virtually* controls any company whose remaining 2,300,000 shares are diversely held by the general public. For a great many small shareholders never vote at all and, among the remainder, opinion is necessarily divided.

It therefore became evident to Baird and myself that the whole future of Baird Television must depend upon the ownership of this block of shares. Their market value might be negligible, but their strategic influence must be decisive. Moreover, we knew that American interests were eager to acquire control.

Baird was right. There was nothing for it but to acquire —heaven alone knew how!—this block of a million shares. Had it been possible at that time to find any reasonable British subject both willing and able to finance so big a deal, I should most thankfully have left the fight to him. As it turned out, I lived through months of the cruellest anxiety, fighting the most desperate "battle" of my career. Baird could give no help. It was up to me.

This crisis could not have occurred at a more difficult time for me personally. I was physically exhausted by three years of intensive struggle to put Baird Television over. I was desperately in need of a holiday.

Then, again, my financial resources, like my physical strength, were at a very low ebb. The great slump had hit first the American markets and then our own. I had lost at least three-quarters of my capital (as I have told in the Prologue) and the remainder of my money was almost inextricably involved in market operations.

Other financial operators had been "caught" by the slump, very much like myself, but the truth is that I had been too busy with television to keep a close watch upon my interests in the "City." If I had had more leisure and more energy to devote to them I could probably have avoided, or at least "cut," many losses. Be that as it may, at the very moment when I most urgently needed a good deal of ready money it was most difficult to find it.

It must be emphasized that Television Limited, the parent company, had gone into voluntary liquidation after the formation of the final public company. It had no assets apart from this block of a million shares. The problem before the liquidators was to realize this solitary asset. They found it difficult.

Of the original million shares, they had, in fact, sold a small parcel of 2,700, but at so low a price that it was obviously foolish to try to dispose of more in the open market.

Let me quote now from a summary of the position which was kindly written for me by W. H. Knight, my colleague and close personal associate during this critical period:

"The shareholders in this private syndicate (Television Limited) had passed a resolution," he writes, "which precluded the distribution of the million deferred shares (owned by them in the public company), but they gave powers to the joint liquidators to sell these shares in one block if they could obtain a suitable offer.

"Each share in Television Limited was entitled to a

considerable number of deferred shares in the public company (approximately 666), but shareholders were in the peculiar position of not being able to realize their holdings because of the resolution precluding the piecemeal sale of the shares.

"Moseley believed," Knight continues, "that this block of a million deferred shares constituted a source of perpetual menace to the public company because its holders could at any time pass any resolution they liked, regardless of the wishes of all the other shareholders.

"His idea, therefore, was to secure the whole block and then gradually to sell the shares themselves in the open market so that the voting powers would thus become widely distributed and, of course," says Knight, "it is reasonable to suppose that he did not altogether lose sight of a possible profit to himself in the process."

Reasonable or not, it was certainly natural to suppose that very thing. But the positive truth is that, at the outset, I had no thought of personal profit whatever!

It would be sheer nonsense to pretend that, *after* I had done all the work and secured the control for Great Britain, I did not *then* begin to see a chance of profit for myself and those of my friends who had been sporting enough to back me. In the first instance, however, I would gladly have handed over the entire deal without a penny of personal profit to any financier who was prepared to guarantee that control would remain absolutely in British hands. Indeed, as I have mentioned elsewhere in this book, I offered the Company to the B.B.C.

"After months of hard work," Knight's statement continues, "and the expenditure of a considerable amount of money, Moseley did acquire a large holding in the private syndicate, Television Limited. He found that a number of the shareholders in that syndicate had become tired of waiting and preferred to sell their holdings for cash rather than wait for the chance to realize at some quite unknown future market value.

"True, the million shares owned by the syndicate *might*

have been sold at any time, but on the other hand they might have to be locked up indefinitely, possibly for years, and certainly until such time as the liquidators found one buyer for the whole block.

"Moseley, therefore, watched the position very closely, and whenever any shareholders in Television Limited wanted to sell, Moseley made a bid and either bought the shares himself or arranged with one of his friends to do so.

"It was a terrific gamble because, unless one is pretty wealthy, it is not possible to carry through a share transaction of such magnitude without borrowing from the bank or arranging with stockbrokers to carry the shares on a margin.

"Moseley was actually buying shares in a company which was in liquidation and he must have made his story very convincing to induce banks and stockbrokers to advance against shares in a company in liquidation, more especially as the company's main asset—the million deferred shares in the public company—could not be distributed among its shareholders.

"I have been from time to time in pretty close touch with Moseley during the fifteen years since that first meeting. . . . He will have to admit that he is a born gambler."

(It depends what is meant by the phrase. I would not admit it at all in the ordinary and conventional sense. S.A.M.)

"I have mentioned that because I do not believe anyone but a born gambler could have brought off the million-share deal without having sufficient, or anything like sufficient, money in sight with which to finance it.

"However, the time arrived when Moseley held, either himself or through his friends, sufficient voting strength in Television Limited to carry a resolution authorizing the joint liquidators to accept his offer of £16,500 for the 997,300 deferred shares, and he signed a contract *undertaking to complete the deal in a month.*"

(Actually I was given an extra week's grace, and that provides a remarkable curtain to my story, as we shall see.)

That is how Knight saw the position, but neither he nor Baird nor the Liquidator, Sir Frederick Rowland himself, could ever have guessed the formidable difficulties which I had to overcome single-handed and in secrecy.

One of them was the fact that, despite the waste-paper prices ruling in the market, there were some shareholders in the parent company who clung pathetically to the belief that they owned a potential gold mine.

This delusion was readily understandable, for there had been a time, during the period of early enthusiasm, when *a group of American millionaires—Walter Chrysler and others—had offered Captain Hutchinson a sum approaching one million pounds for this block of shares!* For reasons which I need not go into here, Hutchinson, who was then in New York, rushed back to London to obtain certain necessary authority with a view to closing this deal. He caught his boat from New York all right, but he "missed the boat" in regard to this sale. The delays and arguments on this side went on too long and the millionaires grew tired of waiting.

That was, of course, in the first heyday of television, but when, in 1931, the parent company, Television Limited, went into voluntary liquidation, the position had naturally changed enormously. Even so and with the shares quoted at fairly nominal prices, several American business men began to prick up their ears when they learned of the crisis in our affairs. In fact, I had inside knowledge that one American group was quietly working for an opportunity to snap up the whole million-share block. This, of course, would have given them complete control of Baird Television at home and abroad.

At all costs I was determined to prevent this and, naturally, Baird was with me all through the piece. That is to say, I had his full moral support, although financially he was scarcely able to help me at all. Indeed, he followed each move of mine with increasing anxiety—and perplexity.

I had to start my campaign single-handed and very much "under cover." If my rivals from the other side of the

Atlantic had come to hear of my plans before I was ready there is not the slightest doubt that they would have defeated them and me. They had unlimited money at their disposal and they thought—wrongly—that they had the field to themselves. But American business men like a nice bargain, and in this instance it looked very much as though they would be able to get what they wanted almost at their own price.

To counter them I evolved a scheme at which I worked morning, noon and night. It was a desperate venture made all the more difficult because I dared not let my plans leak out. Yet how was I to get financial support without a reasonable story?

There had to be incessant private appointments and endless personal correspondence. There were countless luncheons, often with dreadful bores whom one had to suffer cheerfully for an hour or two merely in the hope of talking business for five minutes. A sixteen-hour day was not long enough for me to crowd in nearly all I wanted to do. I spent restless nights thinking of the morrow's battle.

My immediate object was to buy up the little holdings of various original shareholders until I had acquired a sufficient number of *votes* to be in a position to make a bid which the Liquidator would consider for the entire block of a million shares.

It took me months to do this. In many instances I was unable to buy the shares at all: I simply paid a price to the holder for the *voting rights* over a certain period. In one case I paid £200 solely for the voting control in respect of a few hundred shares! In another I paid £500 for a similar right, and so, by small purchases here and there and by disbursing all sorts of odd sums for control of shares whose owners would not sell, I ultimately achieved my aim.

Almost a nervous wreck as the result of these months of intense effort, I sat down at last and wrote a letter to Messrs. F. Rowland & Company, the liquidators of Television Limited, making them a formal offer of £16,500 for "the million-share block."

That offer was ultimately accepted and then for the first time I came out of cover. My bid had not only produced a sensation in financial circles, but it had also caused widespread misapprehension. There were people who imagined that £16,500 was all I was going to pay for these shares. Actually, of course, I had paid a great deal more than that merely to secure my option at that figure. Even today men who ought to know better seem to think that I got the shares for a song. (Baird himself thought so for some time.)

In any case, my bid represented more than the market value of the shares themselves. And it only remained for me to hand over to the liquidators the "trifling sum" of £16,500 on or before a given date.

By comparison with the magnitude of the deal itself, it *was* only a trifling sum. But in 1931 money was "very tight." It was harder to get cash out of "City" men than to open an oyster with one's bare fingers.

I knew that money was scarce, of course, but I did not realize, until I actually tried to raise what I needed, how terribly scarce it was.

And I found myself in a dreadful position, for I had induced several of my personal friends to come to my help in order to gain voting control. Now, unless I could complete the deal, I could see that they would inevitably lose most of their money. I would not go through the same period of anxiety again for any reward whatever.

Ultimately I did what may seem to be a very strange thing. I booked my passage for New York and went over to America to raise enough money to keep the Americans out of British television. There is nothing more fascinating than the possibility of hoisting one's competitor with his own petard.

And over on the other side of the Atlantic I found myself the chief actor in such a drama of frenzied finance, intrigue and counter-intrigue, and "high-powered salesmanship," as even the American talkies have not yet paralleled on the screen.

CHAPTER FIFTEEN

THE FIGHT IN NEW YORK

BAIRD CAME TO see me off when I sailed for New York in the autumn of 1931. I left under the pleasant delusion that victory in the fight for British television was very near at hand. The "million-share block" seemed to be practically in my pocket. I had the option to buy it, and it could scarcely be, I thought, anything more than a question of selling for the best price obtainable *a few of these shares* for enough cash to meet the purchase price, while still retaining control.

In comparison with what I had already gone through and achieved, the final deal looked like child's play. But I ought to have known better. I ought, with my experience of business and human nature, to have realized how few men there are willing to put money down except against tangible security.

Among the truly great financiers one does find that occasional rare courage which will back a man and his promise wholeheartedly. And here I must hark back to reveal the secret—the secret of the part which Isidore Ostrer and Gaumont-British played behind the scenes during the *first* act of this astonishing drama.

Ostrer is one of the few millionaires who are still idealists. He and I went to the same school and we were both very poor in those days. We lost touch with one another in the years which followed, but the old boyhood association was revived when I met him again at the Savoy Hotel some few years before the war.

Ostrer shares my love of sunshine and open spaces. As a boy, his dream was to be a Red Indian chief. Instead Fate

made him a business man. As such, his time was for ever mortgaged and it was always the devil's own job to run him to earth. When I did succeed in doing so, we talked long into the small hours, and naturally I talked chiefly about television.

He became keenly interested and I urged him to make his own inquiries into the position of Baird's invention, warning him that he might find himself suddenly confronted with a situation similar to that which occurred when America put over "the talkies" overnight.

For some reason or other, Ostrer sent his accountant, Harry Clayton, with me down to Baird's place at Box Hill to see a demonstration. Clayton had every right, of course, to examine the figures of the Baird Board and report purely on that account, but why he should have been chosen to judge the scientific proposition, I do not know. I was on the best of terms with him, but he has chided me since then for referring to him in a letter as "an unimaginative accountant." I have replied publicly that when I come across an *imaginative* accountant I shall steer clear of him! Clayton certainly knew his job.

It needed vision and imagination to see how television was likely to develop, and Ostrer, having this necessary gift, eventually decided, against his expert's advice, to come in.

Meanwhile, so scrupulous was I to keep his name secret that I could not tell even Baird whom Clayton was really representing. Baird took him on trust as my friend and gave him what I thought was a convincing demonstration, but Clayton evidently attacked the balance sheet, which he was fully entitled to do. His adverse report actually delayed Ostrer's coming into the picture for nearly two years.

One day in his office in Wardour Street Ostrer made a gesture in the most magnificent screen tradition. He suddenly touched his microphonic telephone and asked Clayton to come in. I had been telling him the desperate position of the Baird Company and the need to save television for Britain. I told him how I stood and exactly what I had planned.

"How much will you require to reach the position you want?" Ostrer asked.

"Oh, about six thousand pounds," I replied, just making a guess.

Clayton had come in meanwhile and Ostrer turned to him.

"Moseley may require six thousand pounds to get into a position for the purpose of controlling the Baird Company," he said calmly. "When he wants it, just let him have it."

I went away braced by the first encouragement I had had for many months. Baird caught my mood. He took me to dinner at Scott's and tried to pump me. We had a gleeful evening together, talking in parables. He went home that night a much happier man. Yet I kept my promise to Ostrer and never breathed his name.

During the next few days I renewed my campaign to procure voting control to such purpose that I was ready to ask Ostrer to redeem his sporting promise. I rang him—and he was away!

What was to be done? I recalled the instruction to Clayton and rang him at Film House. I said I needed £5,800—right away.

First thing next morning that exact sum was lodged to the credit of my private banking account!

"Who was it paid this in?" I asked my bank manager.

"We simply don't know," he said with a laugh. "They left no name . . . and I gave no receipt!"

There is a quality of greatness about this transaction which I must stress. Isidore Ostrer paid in that money to my account without any contract whatever; indeed, without a document of *any* kind to cover him. Other men, given some guarantee, might have advanced the money on the same proposition; but few would have been big enough to realize that, if you once decide to trust a man, half-measures are almost worse than useless. Not a scrap of paper passed to indicate how and why this sum was paid to my account.

It was, of course, vital not to allow the least hint to appear that I had interested so great a corporation as Gaumont-British. If Ostrer's name had leaked out the shares of Baird Television would have rocketed to almost any height. It would have become impossible for me to complete my deal and, far worse than that, it would have meant that sooner or later the shares would have crashed just as suddenly as they had risen.

That was why from the beginning to the end of all our protracted negotiations there was not the slightest whisper of Gaumont-British. *But I had made one small mistake.* Thanks to Ostrer I got my control of Television Limited, but I had not then realized that the liquidators would require a firm bid from me to pay an agreed price for the whole million-share block at a given date. It was at this point, therefore, that I had to make my bid of £16,500.

Shareholders were advised of my offer by the liquidators in a circular dated 28 July, 1931. A meeting was held in Rowland's office and I asked for time to pay. This really meant an option, as more than one shareholder pointed out. Seeing, however, that Rowland had tried and *failed* to sell the shares in the open market and elsewhere, the shareholders eventually accepted my offer. Furthermore, and I mention this in support of my earlier statement that it was a *fair* offer, it gave each original shareholder about £2 3s. 4d. for each £1 preference share and about £3 for each £1 ordinary.

This brings me back to my American adventure. What really decided me to cross the Atlantic to try to raise the money I needed in New York rather than in London had been the sudden emergence out of the blue of two American business men. They had come to London with the express purpose of seeing me—and inveigling me across to New York.

"Over there," they said, "you will be able to sell a portion of your shares without jeopardizing voting control, and so pay for the option."

We argued for days—and nights. Applying the well-

known American "rush" tactics, they bought my passage and almost carried me aboard.

Pride forbade me to approach my friend, Isidore Ostrer, for the second time at this juncture. I felt that he had more than done his bit already and I was resolved that I would not go to him again until I could offer him a solid business proposition backed by securities.

And the fact that I dared not mention, or even hint at, his interest in the matter made things even more difficult for me. Many men I knew would have been willing to finance me, but they had not the money. Others who had the money were far from willing to take a chance.

It must not be supposed that I went to the United States until I had "explored every avenue"—as the politicians would put it—on this side of the Atlantic. As I unpacked in my state-room after we had weighed anchor I reviewed the whole position and felt I had left nothing undone which any business man could have done in the circumstances.

Let me repeat that the news of my option had created a small sensation in business circles within a few hours of the documents being signed. Directly "the cat was out of the bag" and "big business" knew that I held control, telegrams and cables began to pour into my office from all sorts of people in several different countries who were eager to come into the deal. I received provisional offers of money which would have satisfied the option half a dozen times over. Unfortunately, nobody seemed ready to "part" without receiving securities in exchange for cash.

And I was in the exasperating position of being unable to obtain a single share until I had paid the full amount of the purchase money! I was not greedy. I was quite ready to concede or share the profits—if any—but whoever came in with me had to bank for a little while upon my word and my word alone.

For instance, before ever I thought of going to America I was urgently approached by a small private group of "French" business men who seemed particularly keen to join me in this venture.

Every hour was precious, but I flew over to Paris to meet those men. I was royally entertained, but it did not take me long to discover that the "French" group was mainly American after all.

After being entertained to several wonderful "business" meals, I flew back to London with a definite, though only verbal, promise that a contract such as I desired would be signed, sealed and delivered within twenty-four hours. I had no sooner reached my own office in London than a telegram arrived offering me a further bid for shares—*once I could deliver them!*

Other cabled offers came through from Montreal and Ottawa, as well as from various American States. They were all pressing and urgent and cabled at great expense.

I was astounded that there *could* be so much interest taken in a purely British invention. I could not understand why America, in particular, should be so keenly interested. True, the Americans *wanted* control, but they were all told that I would not part with sufficient shares to let them have it. Still they wanted to "come in."

But, without exception, all these offers seemed to overlook the vital preliminary of finding £16,500 in cash in order to fulfil my option.

Even the "French" proposition, which seemed to be more or less cut-and-dried while I was in Paris, fizzled out when it came to the test of putting down the essential ready money.

I suppose that I can fight as stubbornly as most men, but I confess there were times when I grew cold and panicky at the prospect of having to admit failure on the day I was due to hand over to Mr. Rowland, as liquidator of Television Limited, the seemingly colossal sum of £16,500.

Failure meant ruin to the many friends who had placed their blind faith in me, and to television. The failure of Baird Television would assuredly have lessened the faith of the public in any further venture.

It was possible, too, that the astute Americans would

have stepped in and bought all that there remained of the British patents for a song. That I was determined to avoid, for many thousands of British shareholders would have been involved in the ghastly collapse.

Since the first transatlantic cable was strung along the ocean bed and, more particularly, since the transatlantic telephone was first set humming with verbal messages, it has not really mattered very much on which side of the Atlantic a man may be working in any given "big deal." The Americans besieged me in London almost as persistently as they afterwards besieged me in New York.

So weary did I become of these perpetual proposals made over the long-distance wire, before I left London, that when one day an American came in and said airily that he had come to purchase a million deferred shares, at the minimum of a dollar apiece, I passed him on automatically to an assistant!

And yet this visitor, Mr. Nathan Goldsmith, who had once been a big figure in American real estate, had travelled across the Atlantic in great style for the sole purpose of securing these shares! Apparently these million deferred shares had been the talk of the American market for some time.

The money Goldsmith spent in telephoning and cabling from London to his principals in New York would have helped to give me a very fine start in my endeavours to raise the sum necessary to procure the million shares! Even today I find it impossible to understand why American business men, whose expenditure on preliminaries is so lavish, will haggle to the point of endangering negotiations when it comes to the actual transaction. It became increasingly difficult to make Mr. Goldsmith, of New York, understand that I was not for the moment interested in the millions that were to come, but only in the thousands that I needed now.

"If, as you say, these million shares are worth at least £300,000," I told him, "surely you can raise ten to fifteen thousand pounds among your friends so that we can tie up

the shares, or, to use your own technical term, keep them 'in escrow'? What is the use of talking 'big business' to me until we've actually secured the shares themselves?"

Mr. Goldsmith's immobile face did not change in the least. I was told that he had made lots of money in previous "hot deals," but his obduracy on this occasion made me begin to question either his acumen or mine.

Finally, however, after he had spent half an hour on the Atlantic 'phone (at heaven knows what cost!) he announced triumphantly that his "principal," Mr. Leon Osterweil, would take the next boat to England to see me in person!

In due course arrived Mr. Osterweil. He was a slightly built, pleasantly casual and likeable fellow and he greeted me at once with the news that he had in his pockets buying orders for any number of shares at fantastic prices. I groaned, but I endured. We had talk after talk in various hotels and the nature of them never varied.

I discovered, incidentally, that Osterweil was no more a principal than Goldsmith. The two men were, in fact, related by marriage, and finally Osterweil disclosed to me that their principal was none other than Mr. Fox, the film magnate. He invited me to send a cable to Mr. Fox for confirmation of this, and I did so.

From my point of view the reply was by no means satisfactory. It was not a total disclaimer—which would, at least, have cleared up the situation—but it denied that Mr. Fox had any particular interest in the deal or that he was, in fact, the principal behind Messrs. Goldsmith and Osterweil.

The long and the short of it, however, was that even after this almost incomprehensible cable, Goldsmith and Osterweil begged me, more strongly than ever, to come over to America myself, where, they were certain, I could raise all the money I needed in "two shakes of a duck's tail." They even went so far as to book a passage for me on the *Bremen* as proof of good will and business purpose.

I allowed myself to be persuaded. I accepted their

transatlantic hospitality and did not realize that the mere return fare to New York was nothing to the expenses which I should have to incur through operating three thousand miles away from my own base—London.

Still, no expense would have stopped me just then. I was tackling a big job, and it needed tackling in a big way; why spoil my ship for a ha'porth o' tar?

In that spirit I set sail, ready to meet reasonable difficulties, anticipating a lot of "hot bargaining," but never doubting my own final success.

Tugs came out to meet the *Bremen* and a swarm of reporters and "high-power" salesmen and keen business men of all kinds invaded my cabin and shot questions at me. It was a verbal machine-gun fire such as I have never before encountered. I met it with a barrage of words behind which I finally stepped ashore, having contrived to say nothing of any consequence whatever.

An immense limousine, full of undaunted talkers, rushed me to the Biltmore Hotel, where I had reserved a suite at a price that seemed almost as tall as the Flat Iron Building. Four men gave me invitations to dinner that same night and buzzed like flies in my bedroom while I unpacked a suitcase. At last, reluctantly, they left me to meet me again in an hour's time.

*

The weeks that followed were a nightmare. The fervour of my welcome had left me rather breathless, but I did not dream that in the height of a New York summer my American friends could maintain the same high pressure and still get nowhere.

I have a great many American friends whom I like and admire, but they will forgive me, I think, for recording my definite opinion here that the "hustle" of American business methods is largely a psychological bluff. At all events I have found some of our own "City" men much harder nuts to crack than any Wall Street financier. They make haste more slowly, but they do fasten their teeth into

facts. So, of course, do the real American business men, but in their enthusiasm for the ultimate objective they are apt, at first, to skip the preliminary difficulties.

American hospitality, however, cannot possibly be exaggerated. There seemed to be a conspiracy to entertain me and "show me a good time." No man could possibly have accepted all the invitations which I received—the days and nights were not long enough. On the other hand, I soon discovered that if there is any business in the air there is a type of American who can never let it alone. They even give their guest no peace at all. The business proposition is the gin in every social cocktail.

To begin with I found that all the bankers and brokers and others whom I met wanted to talk to me about television and they had no hesitation in acclaiming Britain's lead in television.

It took me some time to grasp that when my new friends were talking about the amazing interest and the remarkable activity in television shares they were referring particularly to our own Baird shares.

I was simply staggered when I was shown some beautifully engraved certificates, which were being sold as "units" over there, and found they were for Bairds. That explained to me certain mysterious "markings" in the shares in London. I do not suppose any important parcel of shares had been bought in England for months and months, but the shares were being hawked about America by astute and apparently imaginative brokers who thought they were a good gamble.

When a correspondent of the *New York Times* came and asked me where he could buy some, I said: "Look here, this is a frightfully speculative proposition." He said: "I know it; so was Radio Corporation of America when they were eight dollars, and look at the price Radio touched!"

But for all this enthusiasm and excitement I discovered that *nobody* seemed willing to do the little bit of solid business necessary to make all our dreams come true.

I found that these American business men were pre-

pared to cable or telephone across the Atlantic at any time and quite regardless of expense. In fact, they spent hundreds and hundreds of pounds doing this all to no purpose. When it came to what they call the "showdown," however, that is to say, the hard basic facts of the business in hand—there was not one of them who could make up his mind either to say "yes" or "no."

The problem I had to solve was surely simple enough to understand. Before ever I sailed from London I had made it clear to my American friends that, whatever other business might result, the key to it all lay in the ownership of the million shares. For that purpose I had to find £16,500, or round about $80,000, and this money had to be advanced *before* I could lay hands on the shares themselves.

On the voyage across I repeated this bald statement of fact again and again. Reputedly hardheaded men were listening to me, but then and afterwards they seemed to think that mere talking could alter an absolutely fundamental position. They kept on telling me what they—or "we"—could do with the million shares *once we had them.* They mentioned colossal sums which would be paid on the nail against the share certificates. But they could not, or would not, provide the essential cash to secure the shares.

This was still in the days of Prohibition, and never in my life have I seen so much drinking among business men. All my hosts and their friends seemed to think it a matter of personal pride to provide drink in immense quantity and variety wherever they were and at any time of the day or night. The law as such was a ludicrous mockery. I was recommended to a reliable bootlegger within ten minutes of entering my hotel, and by that time one of my friends had already produced a pint of "genuine Scotch" from his hip pocket!

I am no teetotaller, but I am never at any time in the mood to drink for the sake of drinking and I have always had a slight contempt for those who will drink more than is good for them. That is sheer folly at any time, but it

In retrospect, some of my experiences during this period were very amusing, though I was in no mood to appreciate their humour at the time. On one occasion, for instance, I remember stipulating expressly that I would have nothing whatever to do with any form of share-pushing. This was when I had been asked to meet another likely "prospect" and I was assured—with an air of pained surprise that I should even have suspected such a scheme—that this business was strictly serious and "on the level."

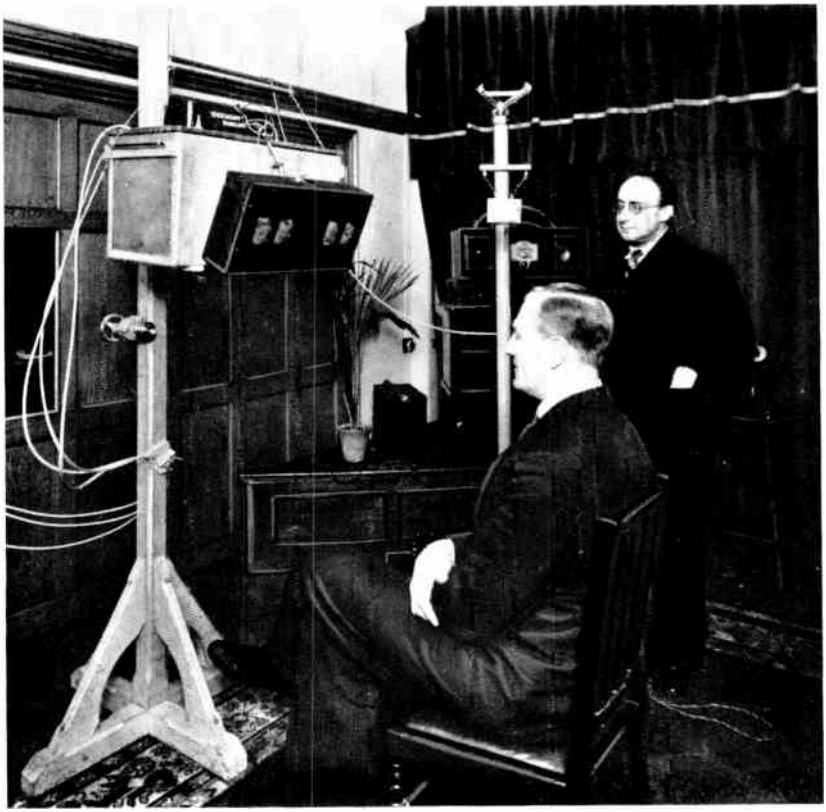
I called on the new man as arranged, started to tell him the old, old story, and was introduced to half a dozen eager listeners who had been invited to meet me. When I had finished speaking, the man who had got me there turned with shining eyes to the rest of the company and exclaimed:

"Well, boys! After this wonderful talk you can go right ahead to the ends of the earth and sell these shares!"

Were I to describe half the wheezes, the blandishments, the double-crossings, the threats to which I was subjected, many readers would imagine that I was "cribbing" from a film scenario. I have been in conference with almost every type of individual in many parts of the globe, but the crowd of New York cosmopolitans who did their utmost to "put over" a deal which I neither would nor could consider has no counterpart anywhere else in the world.

Tempers were pretty frayed. Some of the most astute and brilliant legal minds were brought in to break me down. Some of these legal luminaries, I found afterwards, were to be given a "cut" in the deal—if it came off. And they very nearly "got me down" because of my sheer physical exhaustion. At one time I was almost ready to sign anything.

Every day that passed in these fruitless endeavours was bringing me nearer to defeat. It was heartbreaking to meet one *astute* business man after another only to find that all of them without exception tried to argue facts out of existence. It became at last so exasperating to hear men talking



When the first public exhibition on a large screen was given at the Coliseum in London, many notable people took part in the historic broadcast. This photograph was taken in the Long Acre studio as Sydney Moseley was announcing Bombardier Billy Wells, seen seated before the television transmitter.

On the *left* is a snapshot taken in Berlin in 1930 of Paul Nipkow with Sydney Moseley. It is probably the only photo of the inventor of the Nipkow disk, which was the foundation of Baird's first invention and of other television experiments. When the photograph *below* was taken Sydney Moseley was in the offices of the *Daily Herald* in Long Acre, speaking to and watching Lady Snowden, who was being televised from Downing Street.

of millions and of huge trusts and of "getting the liquidator" to wait, that I came perilously near to hitting one of them in my rage.

We were careering along Riverside Drive to escape the traffic in central New York—four of us crowded in one cab—when this man began to talk about what he would do *after* we had got the shares. I almost screamed at him, so near was I to the verge of a breakdown.

"Don't you understand," I shouted, for the hundredth time, "it's vital that I obtain this money *now, now!* in order *to get possession* of these shares? Until then I can do nothing. Unless I get the money within six days I'm sunk, and your schemes are sunk, and Baird Television is sunk! Don't you understand that?"

He could not seem to take it even then. Within five minutes he was at it again, letting out a torrent of "ifs" and "buts." So I stopped the cab and got out—to save my sanity and maybe his life.

"Take your mind off business for one evening," another of my friends urged me. "Come along with us to dinner and a show."

In spite of my previous experience I consented. My nerves were almost at breaking point. For a little while I did not force my thoughts away from my one urgent problem. There were two married men in the party and their wives and a charming girl, a sister of one of the other women, who had been invited to make up the party of six. Nobody talked business at all and we went on to a theatre and there saw what may, or may not, have been a good play. I do not even remember its name.

After that the idea was that we should go on to a cabaret. I actually got into the car with my hosts, looking forward to meeting other interesting people who were expected to be there. And then, quite suddenly, I had what the Americans call a "hunch."

It was just borne in upon me that I *must* go back to my hotel immediately. There was no apparent reason for this. And yet it was an imperative command from within myself.

MOSELEY BILTMORE HOTEL NEW YORK
RECEIVED CABLE STOP WILL INVESTIGATE IMMEDIATELY STOP WILLING TO CONSIDER DEAL IF TERMS SATISFACTORY STOP CABLE CLEARLY WHAT WOULD BE MY SHARE OF PROFITS AND CABLE AUTHORIZATION TO BARCLAY'S BANK STOP ALFRED BATES 132 FLEET STREET LONDON

And that was the decisive moment of the whole astounding campaign.

When I re-read that cable I felt, with an inner conviction not far short of certainty, that it was a message of fate. There had been so many other cables, bitterly disappointing, full of excuses, empty of substance. This one was different. Zero hour was close upon me and I had been near despair. Now my spirits rose, only to sink again when I contemplated the almost hopeless task of completing a deal of this magnitude solely by cablegram. But there was no other hope and immediately I sat down to prepare my reply.

At three o'clock in the morning I filed a message guaranteeing Bates a minimum profit of £5,000. His reply came back across the Atlantic before the dawn had broken and it ran as follows:

MOSELEY BILTMORE HOTEL NEW YORK
MONEY HARD TO FIND STOP HAVE TO SELL DEPRECIATED SECURITIES AT GREAT LOSS STOP WILL PROCEED IMMEDIATELY IF YOU GUARANTEE ME MINIMUM PROFIT OF £10,000 STOP UPON RECEIPT OF REPLY WILL COMPLETE STOP AWAITING CABLE STOP ALFRED BATES 132 FLEET STREET LONDON

Ten thousand, not five! I am not certain, but I believe that the actual amount of the loan I had suggested in my first cable to Bates was £10,000, but now he was asking me for that sum as a minimum guaranteed profit. Yet, far from giving me a shock, his reply exalted me. What was £5,000

more or less in so desperate a position? Here at least was someone who seemed ready to act instead of talk—somebody who was prepared to take a chance.

I cabled my acceptance of his terms, referring him to my London representative, Walter Knight. After that I could do nothing but wait in a fever of suspense. Would Bates actually complete? How *could* he do so without security or documents? True, Ostrer had done something similar when he paid the sum of £5,800 into my private account, blindfold, as it were, without any security, contract *or* receipt, but why should Bates take such a chance? I hardly knew the man. Arthur Findon has since told me that he had assured his chief that "I or anybody else in Fleet Street would readily vouch for Sydney Moseley." But Bates was a hard-boiled business man.

It seemed to me that, like all the other business men I had approached, he would want the shares, a hidebound agreement, my signature and my presence, before parting with his money. And all this was impossible.

During that period of waiting I began to feel that the game was up and that the whole of my nightmare visit to America had been a sheer waste of time. There was I in New York, three thousand miles away from my base, and now my only hope was to raise the money—in London! "What a hope!" I laughed bitterly. "*What* a hope!"

The option day actually passed and there were rejoicings in certain financial quarters which had been watching me trying to achieve the apparently impossible. Some were no doubt hoping that I should fall down, so that they could go to the liquidator and make the deal themselves.

One actually made a bid of £18,000 to Mr. Rowland, but he was astounded to learn one fact—a secret I had hugged closely to my own breast—that Mr. Rowland had given me a verbal promise before I sailed that he would extend the time limit of the option for one week expressly to meet the possible emergency of my having to go to New York. And I knew enough of Frederick Rowland to know that he would keep this verbal promise, come what might. The position

was, therefore, that though the nominal option day had come and gone I still had a few days' grace.

I cabled Knight to tell Mr. Rowland that "all was going well" and that I was "certain" to complete before the end of the few days' grace, that is to say by the noon of the following Monday. Rowland, Knight, the Board of Baird Television and, not least of all, Baird himself wondered how on earth I could possibly transmit the necessary sum in time. Naturally they wondered. Looking back, I realize myself that this was the most extraordinary transaction which any of us has ever seen carried to a successful conclusion. But Fate was with me during those last hours.

It happened, why I do not know, that suddenly Baird shares in London had moved up to the nominal figure of about 2s. a share. Bates calculated that, since there were a million shares on offer as security against his loan of £16,500, there was bound to be a very large profit for both of us with the shares at this price. To him it sounded almost too good to be true. But he took a chance on it nevertheless.

I cabled full instructions to Knight, but as he puts it: I could not even prove to Bates that the shareholders of the company in liquidation were really in a position to dispose of these million shares in a public company, nor at all explain why.

"Bates might have asked me why, if Moseley actually held a firm option, he should offer such generous terms after he had been already trying to conclude business in America for a month. No shrewd business man, he might have argued, would have been at all likely to let such a golden opportunity go a-begging."

But the fact remains that, without a scrap of documentary evidence of any sort, Bates and his solicitor, Harold Eves, were definitely interested and made an appointment to meet my representative on the following day.

Mr. Eves apparently asked all the questions which Bates had already asked and threw in a few new ones for good measure. Could Moseley, with reasonable safety, guarantee Bates a profit of £10,000? If the shares became of little or

no value, it would mean that Moseley would have to pay out £26,500 because, before Bates could get his £10,000 profit, he must have his £16,500 back.

Said Knight: "I put it to Bates that in a straight fifty-fifty deal it would hardly be fair for one party to take all the risk." Bates agreed, and consented to waive the guarantee altogether!

After this meeting there was a further exchange of cables and more delays. Knight wrote:

"Far from doing us any harm, the delay simply whetted Bates's appetite for the deal. Moseley's option—that is to say, the extreme limit of the verbal extension—expired on the Monday *and it was not until the Friday evening* that Bates agreed to pay £16,500 into Moseley's account, on my undertaking to sign an agreement on Moseley's behalf directly his deal with the liquidators had been concluded. I promised to sign an agreement and Bates paid the money into Moseley's account.

"Having got the money into the bank was one thing; the next problem was how to get it out again. I had no authority to draw a cheque on Moseley's account. The matter could not possibly stand over until Moseley's return from America because, unless the deal were concluded by midday on Monday, all Moseley's work would be thrown away and some other offer might be accepted. There was, of course, always a doubt as to whether Rowland would agree to conclude the deal with me even if I could get hold of the money. I cabled Moseley asking him to cable Rowland that I was acting on his (Moseley's) behalf, and Moseley, of course, did so.

"On this Monday morning I went to see the bank manager of Moseley's bank. I told him that everything was in shape and I had agreed terms with Bates. The bank had, in the meantime, received the £16,500 from Bates for the credit of Moseley's account. The manager agreed to give me a draft for £16,500 on my promise to bring back the certificates for the million shares to be held by the bank in trust jointly for Bates and Moseley.

"I jumped into a taxi and arrived at Rowland's office at a quarter to twelve, *with just fifteen minutes to spare!*

"Rowland had received Moseley's cable. He said it was all very irregular because, of course, anybody might have sent the cable in Moseley's name. I assured him it was all absolutely in order, that I was acting for Moseley, and he handed me the certificates for the million shares in exchange for the bank draft for £16,500!

"I left Rowland's office with those certificates in my pocket, went straight to the nearest post office and cabled to Moseley:

" 'Deal concluded Rowland without hitch; now get some sleep and I will, too.'

"The late Lord Ampthill was chairman of the Baird Company at that time. I told him the deal had been concluded and he asked me to give him some details of my negotiations with Bates, and when he had read a copy of the agreement I had signed with Bates on Moseley's behalf he exclaimed: 'That's not a deal, it's a miracle!'

"Looking back, I cannot help marvelling at what can be done without one word being put into writing. Bates had accepted my word that there was actually an agreement in existence between Moseley and the liquidators of Television Limited, although I could not even produce a copy of it; he accepted my word that the shares did actually exist and could be obtained for £16,500, and he had parted with that large sum on my verbal promise to sign an agreement on Moseley's behalf, knowing full well that I had no written authority from Moseley to act for him.

"The bank had parted with £16,500 on my verbal promise to bring back the share certificates. Rowland had accepted my word that the cable really was from Moseley and that I was acting in good faith on Moseley's behalf. Until then I had never met Bates and I had never met Eves. I had met the bank manager once only and Rowland also once, and I had never had any transaction of any description with any of them.

"However, Moseley returned from America, ratified the

agreement I had made with Bates, and that was the end of the chapter."

Little remains to add to my friend Knight's very lucid résumé of the final battle in London. He did forget to mention, however, that when Mr. Eves first called upon my bank manager, offering him an open draft for £16,500 to lodge to my credit, he refused to take it!

It seemed to him that there was something so unusual about this large payment that he was afraid to accept it without special instructions from me. And, of course, he was right to refuse, but when I heard by cable what had happened I groaned at the savage irony of the circumstances.

Fate relented at the eleventh hour. The bank's refusal, far from causing Bates to withdraw, only increased his eagerness. His representative called at the bank again the following day (after the further interview with Knight) and by this time the bank was able to accept the draft with a clear conscience, for in the meanwhile I had sent it a short cable couched in unmistakable terms!

So, for the second time in this amazing history, two men —both business men at the top of their professions—had paid large sums of money into my account with no security; not even a receipt!

Today I look back on these episodes and wonder whether some higher influence—some fate—was working for me. For surely this kind of transaction is very rare in business. I am certain such a sequence of events could never occur again. At all events neither of the two men who displayed such astonishing faith in me had any cause to regret it.

When I received the final cable from Knight informing me that the money had been paid over, my relief was indescribable. The reaction left me weak and shaken for some hours. I did not until then realize how utterly exhausted I had become. One of my American friends, calling on me a little later, said: "I suppose it's no use suggesting a champagne cocktail to you, Mr. Moseley?"

"Not a bit of use this morning," said I. *"It's got to be a bottle and I'm going to pay for it!"*

The closing of that option was to all intents and purposes the grand climax to my million-share masterpiece. It won for me at a single stroke a greater success than I had ever previously achieved.

But it was by no means the end of the general drama of British television. From New York I went to Canada to consider an offer from financiers over there who were anxious to buy a block of shares at five shillings a share which would have still left me world control of Baird Television. I did not accept this offer any more than I accepted scores of similar offers from American business men, including several of the very men who had previously refused to risk even the purchase money.

My mind was made up to secure this British invention permanently for Britain and, though I now held the shares, my own private capital was not sufficient to hold them indefinitely. And so, since there was now no further need for secrecy and I could approach my old friend again without loss of pride and on a strictly business footing, I got into touch once more with Isidore Ostrer.

The fact that he agreed to my scheme and that his group took controlling interest behind Baird Television is now generally known and it would be sheer anticlimax to go into the details of the protracted business negotiations that were necessary to complete and stabilize this gigantic business deal.

It remains to add that on my way home to London *I sent a wireless message to the British Broadcasting Corporation offering them the world control of this great British invention!* It was, in my opinion, an immense opportunity for the B.B.C., and I was disappointed when they did not accept. But fortunately it did not matter. The invention was already in British hands.

CHAPTER SEVENTEEN

BAIRD IN AMERICA

BAIRD TELEVISION WAS saved. Let me quote John Baird's own notes again:

"The control (of Television Limited) did not remain in Moseley's hands. In a matter of weeks it had passed to Gaumont–British—or, in effect, to the hands of Isidore Ostrer, who held the control of the Gaumont–British group."

Readers may remember the newspaper sensation which followed the announcement that the Gaumont–British group had secured control of Baird Television. In London and provincial papers alike my name was bracketed with Ostrer's and we were described as the two men who had saved television for Britain. And so, for the time being, it certainly appeared.

One amusing sequel to my American visit is, perhaps, worth recording. After my return to London I told John about the immense enthusiasm for television in the States and strongly advised him to pay a visit to New York. There was still much work to do over in America. After all, we had captured Germany for Baird Television: why not America? With virtual control in my hands I could insist on the Board authorizing Baird to make the trip, which besides doing him much good—his health was none too robust—would give a fillip to British television. Above all, if anyone could inspire purchasers of the American rights it was the picturesque-looking Scottish inventor.

Baird was "r'aring to go." I sent my assistant, Knight, to look after him. Between them I expected great things. It was still vitally necessary to get American dollars into the

British coffers. I knew that he would be given one of those astonishing American receptions—how astonishing neither of us guessed.

But let Baird tell the story of his bewildering reception: "Our Company in New York, 'Baird Television Incorporated,' was proving a very expensive affair. We had to pay for expensive offices and staff and the chief result of these activities appeared to be lengthy reports holding out hopes of big deals just about to mature. The Board, urged on by Sydney, decided to send me to U.S.A. to investigate the situation. And so in September, 1931, I set off for America in the *Aquitania*. By a strange coincidence I had assisted at the building of this ship as an apprentice in Glasgow twenty years before, and it was a queer sensation to travel on it as a passenger.

"Among the passengers was H. G. Wells and I was quite excited about the prospect of meeting a man whom in my youth I had regarded as a demigod. The invaluable Mr. Knight, who travelled as my secretary, soon arranged a meeting. Mr. Wells, piloted by Mr. Knight, advanced along the deck to meet me. Mr. Wells proved to be a substantially built man of medium height, a cap pulled over his eyes, utterly devoid of any affectation or any effort to impress. A great anticlimax it seemed after the magnificent Sir Oliver Lodge and other overpowering personalities. No imposing façade here, only a poor ordinary creature like myself.

"We had a short chat about youth camps. I said these organizations appeared to ignore sex. 'Oh, well,' he said, 'every Jack has his Jill.' And that is all I remember of the conversation with my demigod. Mr. Knight, however, photographed us together on the boat deck."

Then came an amusing reception. As the ship approached New York harbour Baird was surprised to see on the pier a body of Highland pipers marching up and down with great *élan* to the music of the pipes.

"These wretched men proved to be a gang of comic-opera pipers from the Ziegfeld Follies. A misguided but enthusiastic American publicity agent had arranged to give

me a real Scottish reception.[1] I was to walk in front of this procession, with a police escort, to my royal suite at the Waldorf Astoria. I could not face it. I slipped away and reached the hotel unobtrusively in a taxi. A few minutes later the Highlanders (from Czechoslovakia, Louisiana and Hollywood) arrived. It was an expensive matter pacifying them.

"The royal suite was overpowering, particularly the bathroom, an enormous hall having a vast black-marble bath set in the floor with a great profusion of sprays and showers and gilded W.C.s. The suite was filled with pressmen, photo-bulbs flashing and reporters taking notes. Encouraged by the dynamic publicity man they stayed on, but gave me the impression that they had no interest whatsoever in myself or my works and much preferred to concentrate on the whisky and refreshment. At two in the morning the last of them had reeled out or been carried out and I retired to my royal bed.

"The next morning the roundabout started at nine o'clock with three business visitors who joined me at breakfast to discuss a very important proposition; which seemed to me incomprehensible nonsense, but the guests ate heartily and drank enormous quantities of rye whisky until at 11 a.m. one of them collapsed on the couch and lay as if dead with glazed eyes. The prohibition spirit had got him; he was removed for an application of the stomach-pump.

"This seemed to be quite a commonplace part of business routine. More business men arrived and more pressmen. I had ten guests, whom I had never seen or heard of before, to lunch. They talked incessantly."

"Jimmy" Walker was Mayor of New York at the time of Baird's visit, and it was arranged that he should welcome him to the City.

"I was conducted to the City Hall by a police escort," said Baird, "which consisted of four policemen mounted on

[1] Later this enterprising person had the temerity to send us a bill!—Sydney Moseley.

motor-cycles. One drove ahead of my car, the others went one on each side and one behind. All four of them made a terrible noise with the sirens with which they were equipped."

When they arrived at the City Hall the band of Ziegfeld Follies Highlanders was marching up and down outside playing "The Barren Rocks of Aden." Baird was ushered into the Mayor's Parlour, and after some little delay Mayor Walker appeared, shook him cordially by the hand and then immediately began an address to the Press representatives who were present in force; he evidently did this sort of thing regularly. "We have with us here today," said the Mayor, "a man who has given us his world-famous invention of——" here he hesitated for a moment and his secretary said in a stage whisper, "Television." The Mayor then went on to give a dissertation chiefly on the wonders of New York and kept referring to Baird as an Englishman, although there was a band of pipers outside.

The proceedings came to a conclusion with cordial handshakes and the flashes of Press cameras and Baird was driven to the "Waldorf" to a lunch of clam chowder soup (made from oysters) and roast jumbo squab (a small chicken).

"While I was becoming thoroughly impatient with thirsty pressmen and futile agents," says Baird, "I had my first meeting with American 'Big Business.' He was an American millionaire. I was told he was interested in our activities and likely to finance us if properly handled. His lawyer arrived to see our demonstration and report, a little withered man with beady eyes, smoking a thin black cigar.

"Samuel, our agent, who spoke his language, endeavoured to instil some enthusiasm into the cynical lawyer as he watched our pictures with an appearance of disinterested contempt, and finally, with 'It ain't up to the pictures,' took his departure. 'There's no pleasing that guy,' said Samuel.

"As everything must be done to ingratiate the great man, a magnificent dinner was prepared in the millionaire's

honour in my palatial suite at the 'Waldorf,' and in full evening-dress we sat around awaiting his arrival. Seven-thirty, the time appointed, came and went; 8 p.m. arrived and still no millionaire; 8.30 p.m., still no sign of him; then at a quarter to nine the door opened and a little stout man in a brilliant checked lounge suit pushed open the door and stood puffing slowly at a large black cigar. 'Sorry I'm late, boys,' he said. 'Ah, good evening,' said I, 'that's quite all right, we've been waiting for you,' and I shook a podgy, sweaty hand. 'That's O.K.' said the millionaire, 'I guess I can't stop; Jack there will give me the low-down on it tomorrow.'

"With that he sat down on the chair at the head of the table, and took some chipped potatoes from a dish. Then, looking round the assembly with lined eyes, he nodded to his lawyer. 'You see to it, Jack,' and so, sticking his cigar into his mouth, he left us. That was the last we saw of him.

"After a time," Baird continued, "I got my bearings." Soon afterwards he met someone who was truly enthusiastic, Donald Flamm, the owner of WMCA, New York's independent broadcasting station. After interminable negotiations, visits to executives, giving evidence before committees, giving demonstrations with apparatus Baird had taken over with him, he duly signed and sealed an agreement whereby WMCA was to begin the broadcasting of television in New York using Baird apparatus at terms satisfactory to all parties. It was an excellent move—and enterprising on the part of Mr. Flamm.

They went to Washington to give evidence before the Wireless Committee, for the purpose of securing permission for WMCA to broadcast television, and Baird had his first experience of American legal methods. He found the complete lack of formality astounding to one accustomed to the dignity and red-tape of British procedure. Reporters, witnesses, solicitors and a sprinkle of the public sat all together in a large hall. The Commissioner proved to be a young man. He lay back in his chair, gazing abstractedly at the ceiling, throughout the proceedings.

"Everybody in the hall," Baird observed, "seemed to give evidence at interminable length. When my turn came the subject had been so thoroughly exhausted that there was little left for me to add; I did my best and the proceedings terminated without comment from the Commissioner.

"Donald Flamm was, however, quite happy about it, and told me that we were certain to get permission. And he was right: WMCA got the necessary permit. Feeling that I had done a good bit of work, I returned to London. We had obtained permission from the Radio Commission at Washington for our broadcasts and naturally thought we were all right." Then came another disappointment.

"The law in America"—again I am quoting John's notes—"moves in a mysterious way. Radio Corporation of America, who did not want to see Baird broadcasting in New York, moved and appealed through a nominee to the Federal Court. They asked that the decision of the Radio Commissioner be revoked and that we be prohibited from broadcasting television on the grounds that no foreign or foreign-controlled company could be allowed to broadcast in the U.S.A. Their appeal was granted and our scheme fell through. The whole thing proved an utter loss. It was a most serious blow, and the company was in bad trouble at home.

"It might be asked why we could not sell our patents in the U.S.A. The answer is that the patent position in America is truly appalling and quite hopeless for any foreigner. Whatever patents you may have can always be anticipated in America, for it is only necessary for your rivals to get up in a court of law, assuming, of course, they are American citizens, and swear that they thought about your invention on a date preceding the date on which you filed your patent; then if they can produce witnesses (a simple if expensive matter) to prove that they spoke of this and described it at that date, before the date of your patent, 'priority of conception' is established and your patent becomes valueless.

"The only way to get anything done in America is to

sell out for what you can get to an American company and let Americans fight Americans." This may not be one hundred per cent correct, but the expense of legal battle is indeed staggering.

"I arrived back in London to find an angry and impatient Board awaiting me and Moseley in control of the situation. I had stayed in New York some three months and the only business result of this activity was the contract with WMCA.

"There was one very much more important result, however, as far as I was concerned, and that was my marriage which took place in New York on 13 November, 1931. While this, of course, was a purely domestic matter and had nothing to do with the Board, I think it caused a certain amount of resentment. They thought, perhaps, that I was using up the Company's time for my personal affairs. Personally I think my marriage helped the negotiations, as there is nothing the American delights in more than a celebration of some sort. All our business contacts in New York were invited to a magnificent dinner to celebrate the occasion and they certainly appreciated it. I do not know if Mrs. Baird appreciated it equally. What should have been a honeymoon was nothing but a succession of business engagements.

"When I got back to London the Board were impatient to know the results of my lengthy stay in New York. I had the WMCA agreement to show them, but unfortunately within a matter of weeks came the news that the Federal Commission had turned down our application to broadcast. The whole deal was, therefore, off and my visit to America from the business point of view had been a waste of time. It had been an expensive waste of time also, not only for the Company, but for myself, as there was such agitation over my expenses that I agreed to pay half out of my own pocket.

"I had found to my cost what Hutchinson had found some years earlier—the appalling difficulty of getting any definite business deal completed in the U.S.A."

That was how it seemed to Baird in New York. Let me tell how it seemed from London.

Baird played the part of the meek, dreamy-eyed inventor when he went to America. That was all right, because I had sent W. H. Knight along to look after him and the business side, and the main purpose of the trip was clear. But the *New York Times*, on 25 October, 1931, stated in a headline that "Baird deserts his Laboratory to Recuperate in New York." The *New York Times* was always fair to Baird and he was proud of the fact that this newspaper included him in its list of famous scientific discoverers.

What is interesting about this description is that it was manifestly new to New York readers. It was true that much was going on inside American laboratories, but, so far as the public was concerned, little or nothing was known of John Baird. The *New York Times*, however, described him as "the Scotsman who televised the face of Mrs. Howe across the Atlantic in 1928, and later added to his glory by flashing a countenance from London to the S.S. *Berengaria*, one thousand miles at sea. He has deserted his magic sanctum and is in New York to see what others are doing in the realm of television."

Be it noted that Baird at this time contended that the scanning disk would remain for some time as an indispensable part of the small and inexpensive television receiver. "He sees," said the *New York Times* report, "no hope for television by means of cathode-ray bulbs. He has developed what he calls a 'mirror scanning drum' which empowers him to cast images on the wall or screen."

"He asserts," the report continued, "that the neon tube will remain as the lamp of the home receiver. For theatres he has developed a special arc light, which can be made to fluctuate rapidly in accordance with the incoming television signal."

Unfortunately, Baird committed himself on the question of ultra-short waves no less rashly than he had done on the cathode-ray. He told Orrin Dunlap, Jr., who was then radio editor of the *New York Times*: "I observe that there is a

movement toward the utilization of ultra-short waves in America. I am rather sceptical about their success in television because they cover a very limited area. I am of the opinion, based upon our tests in London, that the regular broadcasting channels are best adapted to carry the television pictures. We have not done much with the very short waves, although I may later experiment with them using an aerial on top of the Crystal Palace." As Baird ultimately did.

Dunlap described Baird as speaking in a feeble voice. He mentioned that the Scots inventor "had a suite high up in the tower of a New York hotel and he smiled with great pleasure when he looked out across Manhattan to a view that he never imagined, even from pictures in the papers at home."

What Dunlap did *not* know was that Baird's suite, high up in the tower of the "Waldorf," was causing some concern to us in London, where the constant demand for expenses meant more cuts at home and the prospect of our reaching a danger level.

The one who encouraged Baird was, as we see, radio pioneer Donald Flamm, who became one of my friends and over whose station I broadcast the first of a long series on British aims in the war. This was WMCA in New York, an independent station then owned by Flamm.

Donald, alert and enterprising, immediately became attracted to the possibilities of television and of his station being able to put over the first regular programme of television. In fact, he immediately filed an application with the Federal Radio Commission "for an experimental television licence, which, if granted, will empower co-operation with Baird for testing his transmission system on the American air."

Applying for the licence and getting it were two different things, and when I went over to America again we all travelled to Washington in order to give evidence before the Federal Radio Commission. Writing to me on 5 September, 1951, Flamm recalls that "when we made

application on behalf of WMCA for the right to broadcast the Baird system of television in this country there were only eighteen television stations in operation throughout the United States (of which several were 'portable' stations), and nearly all of them were on an 'experimental basis.' They ranged in power from 50 to 20,000 watts and the scanning lines per inch were either 45 or 60."

CHAPTER EIGHTEEN

EXIT THE "ARCH-VILLAIN"

ONCE BAIRD TELEVISION had obtained the powerful backing of Gaumont–British, it seemed reasonable to suppose that the inventor had left all his troubles behind him and could look forward to many care-free years of creative endeavour. After all, he now had the support of a great business organization at the head of which was a good friend of mine and a devout believer in the cause of *British* television. I say "British" advisedly, for Isidore Ostrer's chief concern was to retain his country's leadership in this new scientific field.

The future seemed rosy, even to me, little inclined to easy optimism though I was. I had brought about this marked change in the Company's position and I sincerely believed that it would enable Baird and his inventions to go on from strength to strength. Unfortunately, things did not work out like that. On the contrary, after Baird's return from America they went from bad to worse.

This was not my fault. My memory of all the circumstances which led up to the final disillusionment of the great Scottish pioneer of television is extremely clear and is reinforced by the notes I made at the time and by the many relevant documents which I still have in my files. Rather than tell the sad story myself, however, I prefer to do so as far as possible in Baird's own words—those he uttered in many conversations with me, and those he set down in the notes he left behind him.

First I must explain, however, that after I had relinquished control to Isidore Ostrer he not unnaturally wished to place two Gaumont-British nominees on the

Board. They were Sir Harry Greer, a director of several companies (including Stephen's Ink), and Mr. Harry Clayton, the accountant whom I have already mentioned. The latter appointment was a wise one, for finance was still one of the Company's pressing problems, but Baird and I could not imagine how Sir Harry Greer, who had no experience of television, could be regarded as preferable to Lord Ampthill, who had at least been through the teething troubles of television with us. It was obvious that Greer and Ampthill could not "mix."

In fact, they were at variance from the start, and after two meetings Lord Ampthill resigned from the board. Greer succeeded him as chairman, but the change did nothing to improve the fortunes of the company. "It was not long," wrote Baird, "before trouble began to blow up between Sir Harry and Sydney, and this came to a head over our negotiations with the Marconi Company which had reached an advanced stage."

Here I must part company with Baird. It is true that we had begun negotiations with the Marconi Company for a merger before Sir Harry Greer joined the Board, and equally true that I was heartily in favour of such a merger. But Baird was, I feel sure, mistaken in supposing that we had reached anything approaching a final agreement.

I only wish we could have reached one, for, if we had been able to join forces with the Marconi Company, Baird's future would have been assured, and probably investors in his Company would not have lost their money. In my opinion, however, the Marconi people were never very serious about this proposition—at that stage anyhow. A number of visits had certainly been exchanged by the technicians in our respective laboratories and I will not dispute my old friend's recollection that "there had been a succession of meetings and dinings with Sydney in the foreground." But, when he wrote that the Marconi Company was "very keen" and that "little remained to be done except to draw up the agreement," the wish must have been father to the thought.

It was soon very clear to me that in the new set-up John and I would be for ever fighting a losing battle—or, at least, one which we should eventually lose unless we kept on fighting with furious energy.

The new Board was fast losing patience with Baird and his dilatory methods. Baird the visionary was still occupied in development, whereas the practical men of the Board wanted results. They wished to sell receivers, whereas Baird was still reaching out. This difference in conception led to hostility which developed and reached a climax, and I decided that my usefulness to British television was at an end. With my success in getting Ostrer into the Company, backed by his immense financial organization, I decided that I had done all I could for British television. The time had come for me to say goodbye. Baird, of course, could not understand why this was, but I had put in many years of constant endeavour, was tired, and had no heart to begin fighting all over again with the new Board. Then, I was not at all at one with the new Board in relation to their Marconi policy. I backed Baird here again, but after all the matter was now in the hands of the financial Czar, Isidore Ostrer.

Still, after discussion with John, and at his insistence, I agreed to have lunch with Ostrer and talk things over with him. After all, he said that it was I who had "induced" him to "come in" and had told me more than once that our Company's chief asset was the name "Baird," which I had done so much to publicize.

In these circumstances I felt that, however disappointed I might be personally at the turn which things had taken in the Board room, I owed it to both Ostrer and Baird to stick to my post. But there had to be a choice between "the Baird faction" and the newcomers. What then was my astonishment, my relief and my amusement (I experienced all three emotions at this fateful meeting) to hear my friend Ostrer remark that, after all, he believed I could wield more influence *off* the Board than on it!

Many people have wondered why I resigned. They need

wonder no longer. I felt certain that if I left at this juncture it would clear the way for a fresh beginning between the Baird Company and the B.B.C. The Board seemed to sense this, too. They had the impression that if they were able to go to the B.B.C. and say that the firebrand Moseley had taken his departure they could begin a fresh, innocent friendship where they could receive fair play from the B.B.C. As a matter of fact, the very opposite happened. On the day a deputation from the Baird Company informed the B.B.C. that I had resigned from the Board, the comment attributed to my friend Noel Ashbridge was: "Now that Sydney is out, Baird will be out very soon."

Had I been able to stay in London I doubt whether I should have begun another bite at the television "cherry," a process in which I have never indulged. I had done my pioneering work, but as usual I should have been at the back of Baird in advising him as to his future action, but Government officials in London insisted that I should go to America because I could be of more service to the country by informing the American people of the urgent need of help to Europe. They doubted whether I should be able to succeed in getting on the American air in order to achieve these aims. How I succeeded and with what results I have told in another book, but here I might say that so vital was this work that any question of television was put completely behind me.

Baird wouldn't believe it when I told him I had resigned. His hands went wildly through his tousled hair and his expressive face was a study to watch. "Ostrer let you go! What incredible nonsense! What on earth is the man thinking about?" was all he could say. He did not blame me. He was too stunned for that and, besides, he knew that I had been longing for an excuse to withdraw from the fray. But he foresaw only too clearly how greatly his own position would be weakened. He couldn't understand, nor could I, that after the value Ostrer had placed on my being on the board, he had permitted me this "out." My relief, therefore, was Baird's anxiety.

And well it might have been, though once again I am doubtful whether negotiations were quite so far advanced as poor John believed.

Frustrated in the Board room though he felt, Baird never lost heart in his own laboratories. He recalled in his memoirs that "while all the business upheavals were in progress" he went ahead steadily with his experiments in transmissions by ultra-short wave! This, in view of the bad blunders he made in America when he predicted publicly that there would be no future for short-wave television, affords remarkable proof that John was by no means so pigheaded as some of his critics considered him. He could and did learn from his mistakes, though, alas, he was sometimes too late to profit by the lesson.

"In 1932," he wrote, "we were doing experiments with ultra-short waves, and I remember discussing this while lunching with Professor (Sir Edward) Appleton. He stressed the importance of this work very strongly and advised me to push ahead and give a demonstration at the earliest possible moment, so that on 29 April we gave a demonstration from our ultra-short-wave transmitter at Long Acre, the images being received on a thirty-line television receiver on the roof of Selfridge's.

"That was the first public demonstration of ultra-short-wave television given, so far as I know, in the world, but certainly in Great Britain. Not that many people were not working on ultra-short waves, but by giving a demonstration we established and drew attention to their possibilities in television."

Baird now made up for lost time; so that by 1933 the development of the ultra-short wave had proceeded to such an extent that he could show scenes having very much greater detail than was possible over the ordinary B.B.C. channels. He gave a demonstration to the British Association meeting at Leicester, the demonstration showing a one-hundred-and-twenty-line picture, five inches square, on a cathode-ray tube.

But just as he had forged ahead, so did others. New rivals

appeared. Among them was the H.M.V. Company, which approached the B.B.C. with a rival television system. No details were published, but Baird believed it was some form of mirror drum giving a picture of one hundred and fifty lines.

The B.B.C. now agreed to test Baird's new television apparatus and give it a three months' trial on the understanding that the apparatus would be removed by 1 January, 1934, by which time the H.M.V. Company would have ready apparatus which they also wished to install for test by the B.B.C. Baird duly installed his apparatus and began demonstrations, showing pictures with one hundred and twenty lines and, as agreed, he removed it at the end of the trial period so that the space would be available for the H.M.V. Company. "They, however, did not install their apparatus," writes Baird.

"The position became increasingly complicated by the demands of other companies to have their systems investigated."

And now television was accepted as being so important and complex that again a Television Committee was formed by Parliament to investigate the whole situation. Again Sir William Mitchell-Thomson, later Lord Selsdon, was chairman. The Committee was finally unable to choose between the Baird apparatus and the apparatus of the Marconi–E.M.I.

"As far as actual results went," Baird wrote, "there was little or nothing to choose between us. We could show better cinema transmission; Marconi–E.M.I. were better on outdoor work; but, taken all together, the merits were about equal. This, indeed, proved to be also the opinion of the Committee, who being unable, after long deliberation, to decide on one or another, recommended that both systems be tried by the B.B.C. for a period of two years, after which one or the other should be adopted at the B.B.C.'s discretion.

"Now we were faced at last with really serious competition. We had against us the whole resources of the vast

Radio Corporation of America, comprising not only the biggest companies in the U.S.A. but the great Telefunken Company in Germany and a host of others. If we had joined Marconi we would have been with this combine, not against it. To face the world single-handed was sheer insanity.

"While we and the Marconi–E.M.I. were competing in the B.B.C., we received a severe and unexpected set-back. For many years I had considered the possibility of using one of the towers of the Crystal Palace as an aerial for ultra-short-wave transmissions. So, in 1933, when the need for larger premises arose, this dream came true. We moved our laboratory to the Crystal Palace and also started our factory there."

Baird was also deeply studying a problem that had always been near his heart—that was, transmitting television pictures by wireless to the cinema screen. And for some weeks he did transmit such pictures, both in monochrome and in colour, to the Dominion Theatre, in Tottenham Court Road, where they were shown on a twelve-foot screen—the first time this had been done.

But then came the disaster. A fire broke out at the Crystal Palace in which the Baird Company lost nearly £100,000 worth of apparatus. The money loss was largely covered by insurance, but some of the apparatus and records were irreplaceable and this during the crucial period when the B.B.C. was testing Baird's system against that of Marconi–E.M.I. Owing to the loss of spare parts and apparatus, there was serious interference with the Baird transmissions from the B.B.C.

"However," wrote Baird, "the fight was not yet over and, had my friend Sydney been with us, I think we might well have won, combine or no combine. As for myself, I at least had realized the position but had not the ear of Isidore Ostrer, the one man who controlled our destinies—and without that I was impotent.

"For the allotted period the Baird and Marconi–E.M.I. systems were transmitted on alternate weeks. The public could receive either system on the same receiver." Then

came the fateful decision—a disaster or, in Baird's own words, "the bitter blow—the B.B.C. adopted the Marconi system. And so, after all these years, we were taken off the air!"

With every justification poor John felt cruelly aggrieved that his successful rival—Marconi–E.M.I.—though its system had inspiration from America, was soon proclaimed to be "All British" and that "in an amazingly short time it became established in the public mind that Marconi had invented television!"

Baird's colleagues on the Board did not seem to understand what a terrible blow it was to him to be thrown out of the B.B.C. They argued that transmissions were not of much consequence: it was the sale of Baird receivers that mattered; *that* brought in the money. They did not seem to realize how wounded was his pride or how bitter the frustration of his high ambitions. Even so, John would not give way. If he was off the air, at least he meant to be on the screen.

"It seemed to me," he wrote, "that now we should concentrate on television for the cinema and should work hand-in-glove with Gaumont–British, installing screens in their cinemas and working towards the establishment of a broadcasting company independent of the B.B.C. for the supply of television programmes to cinemas. I reported this view to the Board, but it was rejected. However, in my little laboratory at Sydenham, within narrow limits I had a free hand and had built up a big screen and projector.

"This, with Ostrer's consent, had been installed in the Dominion Theatre, so that some sort of start had been made. The B.B.C. decision was a blow to Ostrer and he was thoroughly dissatisfied and was even hinting at withdrawing his support from the Company when, by a heaven-sent opportunity, I was thrown in contact with him at the Television Exhibition of the Science Museum. I was filled to exploding point with enthusiasm for cinema television and let him have it in full force.

"Ostrer (when once one established contact) was very

impressionable and he rose at once. We had tea together and discussed the position at length. 'Some vital personality is needed to force this thing through,' said he. 'We need fresh blood. It will be a fight—we need a fighter.'

"Several names were mentioned and then the name I had been waiting for—Sydney A. Moseley! . . . We parted on most friendly terms. I was back in the picture. Some of the other directors were out—for the moment anyhow. I wasted no time. I pushed forward my plans and, working all day and most of the night, was able to give a demonstration at the Dominion a few weeks later. To this came Ostrer. We had a long talk and he arranged to get in touch with Moseley forthwith.

"A few days later, to the utter dismay of other members of the Board, Ostrer appeared at the Crystal Palace accompanied by the 'arch-villain' Sydney. Here was the man whom members of the Board had been criticizing being shown round and consulted by the 'deity' himself, who obviously had it in his mind to place him in a dominant position in the Company. It was one of the few occasions when I have seen my critics look thoroughly upset. 'Good Lord!' said one to me, 'do you know who Ostrer is bringing with him?—Moseley!' and then, realizing that I did not share his outlook, 'Oh! I suppose you know all about it!'

"The situation ripened nicely. A little private meeting followed at which Moseley, Ostrer, West and myself were present. We had a happy little meeting.

"It was decided to form a new Company—Cinema-Television—which would virtually control Baird Television; Moseley was to be a director of this new company and given wide powers, including what would have amounted to control of the present Board. I wanted the word 'Baird' in the name of the new Company, but the others thought that, if the whole cinema industry were to be embraced, it was better—for the start anyhow—to have a perfectly general and all-embracing title. I gave way unwillingly."

This Company was duly formed with a nominal capital of £250,000.

"Ostrer and Moseley were now united in brotherly love and close communication, causing much snorting and gnashing of teeth among the anti-Baird party. They dissembled their grief, however, and greeted Moseley as the long-lost brother."

My old friend's account of this development caused me the utmost amusement when I read it long after his death. But it is substantially correct. I *was* to have joined the Board of Cinema-Television and John was to become its President at a salary of £4,000 a year. But, as things turned out, I never did join this Board. John thought it was because I did not insist on doing so immediately, as, indeed, I could have done.

"By this delay," he wrote, "Sydney lost the opportunity, for in the meantime Ostrer had come round to the view that Moseley was 'better off the Board than on.'

"I think, however, he would have joined the Board and the course of events would have been very different (I believe we might have saved the company from catastrophe in spite of the war had we had his live and vivid intelligence and personality to help us in that crisis), but for the unfortunate fact that at the time when I might, by pressing the matter, have got him on the Board, I was invited to address a great radio convention which was being held in Australia. The Australian Government was to pay all expenses and our representative in Sydney considered it a heaven-sent opportunity for opening out in that country."

It is true that Baird went to Australia in this crucial period, but he need not have reproached himself for deserting me. Nor could he, in fact, have induced me to join the Board. Ostrer almost persuaded me to do so in the first instance—and I had another ally in Archie Church—but I did not see how I could work with some of the others, and, as I have said, I was still too tired to start fighting all over again.

Baird's long business-like memorandum to me at this time clearly sets out, in his delightful scrawl, his ideas of the basis of the new company—Cinema-Television. A

glance at this memo would compel any reader who may still be hesitant to give Baird credit for business acumen. The three foolscap pages under various headings and divided by many clauses might well do for a prospectus for a public company. The best I could do was to circulate this interesting document to members of the Board and then reluctantly leave Baird to "carry on" as best he could. At least his new office as President brought him in £4,000 a year until Baird Television went into liquidation and Cinema–Television began a new and hopeful era as a separate entity.

Despite further rebuffs Baird remained game.

"We continued producing and selling receivers," he wrote. "Big screens were installed in several Gaumont cinemas. We had a monopoly of colour television and, personally, I thought it of great importance, although several of my co-directors were not so enthusiastic."

Alas, when the Radio Show opened in August the threat of war had grown ever more ominous. The Baird Company had, however, a first-class exhibit and the show held on almost until war was declared. But finally the tension became impossible and the show closed.

Baird insists that when war broke out Baird Television Limited was just rounding the corner after many ups and downs. "We had orders pending to fit the Gaumont-British cinemas with large screens, and our home receivers were considerably the best on the market and were in great demand. Orders were pouring in. Our stores were stocked with receivers and we had a staff of nearly five hundred men. Television was coming into its own!"

But John never came into his own with it for, almost immediately after the outbreak of hostilities, the whole television industry came to a complete standstill. How he himself spent the war years must be told in my next chapter.

CHAPTER NINETEEN

THE WAR YEARS

UNFIT TO SERVE his country in the Forces and denied the chance to serve her among the "Boffins" in secret research work, John Baird lived through the Second World War in a sort of unhappy dream. He felt that he had been abandoned by his business colleagues, passed over by the B.B.C. and the Service Departments and deserted by most of his friends. Having taken his wife and his two children to the "safety area" of Bude, he spent most of his own time in London and found in continued work his only refuge from loneliness and depression.

At the very outbreak of the war Baird was stopping with mutual friends, the Carstairs, some way out of London and nothing would satisfy him but to return to town immediately. There was something he *had* to get from his workshop at his laboratory at Sydenham, he told his host, and so Carstairs agreed to drive him up. The roads were crowded with traffic travelling in the opposite direction, for the evacuation was in full swing and the first air-raid warning —a false alarm—had left many people fearful that German bombers would be coming over at any moment. Baird paid no attention to the animated scene. His expression was abstracted; he talked little. Carstairs assumed that he was thinking of nothing but some piece of apparatus or set of drawings, which ought to be removed to safety at once.

Arriving at his home in Crescent Wood Road, Baird left the car and hurried alone to his laboratory. He emerged a few minutes later carrying his precious possession under his arm—*a small Persian kitten!* Carstairs, too much amused and touched to make much comment, found old John in

The picture *above* shows Baird with W. H. Knight, who had been sent out with the inventor to complete arrangements in connexion with the American interests in Baird Television. The photograph was taken at Coney Island, and it was there that unexpectedly Baird was married. The picture *right* shows Sydney Moseley off to America, accompanied by two Americans who had come to London to arrange the development of television in America. John L. Baird came to see Moseley off.

On 24 October, 1951, Baird received official recognition from the London County Council when a memorial plaque was unveiled over the premises of No. 22 Frith Street, Soho, where in 1926 Baird televised a human being for the first time—William Taynton, his office boy. A similar plaque had been unveiled some years previously in Hastings, where Baird first succeeded in showing shadowgraphs. Each claims the honour of having been the home of the first television success. The explanation is that in Hastings the embryo of television was achieved, whereas in Soho Baird transmitted for the first time a human form.

friendly and talkative mood on the drive back to the outer suburbs. This story did not surprise me in the least, but it does throw an interesting sidelight on Baird's complex character.

In point of fact, when the bombing did start, he simply ignored it. In a letter he told me that he used sometimes to dive under a table in his laboratory when enemy planes were right overhead and the bombs came very close, but there was no element of physical fear in his make-up and his only anxiety was for the safety of his beloved experimental machines.

Moreover, except in the sense that he knew the Nazis had to be stopped, Baird took little interest in the war and seldom read more than the headlines in the newspapers he occasionally bought. His detachment from the realities of the world situation was so unaffected and so absolute that it often exasperated me. True, he had always been immersed in his inventions, but, as I have shown, he had to travel a good deal on the Continent before 1939 and I should not have thought any man could have been so blind to the menace of Hitlerism as he appeared to be.

No doubt, journalism and authorship always coming first in my own life, I was sooner and more deeply conscious of the approaching catastrophe than most other people; I certainly had greater opportunities to "see it coming." But Baird could have seen and did not bother to look. Whenever I came back from America, Germany or France in the 'thirties, I *had* to unburden myself to him. For he was my closest friend and we saw a great deal of one another in those days. He tried to sympathize with me in my mounting anxiety, tried to display some interest in the appallingly ominous news I brought him, but within a few minutes of our meeting a faraway look would come into his eyes and his thoughts would wander back to some immediate problem of television. Many a time I was tempted to shout at him: "Blast your inventions, John! What do they matter when the whole world is likely to go up in flames at any moment?" But I could not be angry with him for long;

to stay in any one place for any length of time. His frequent, though irregular, letters to me came from continually changing addresses and it was probably on that account that some of my replies to him seem to have gone astray. I was extremely sorry that I could not stand by him through the war as I had done prior to it.

But I had no choice in the matter. Television in Britain came to a full stop with the general mobilization and I had personally lost interest in it months before that, not because I had left the Board, but because the gathering storm in Europe filled all my thoughts. It is true that in 1938 I crossed the Atlantic at the invitation of the Canadian Broadcasting Company, ostensibly to see what could be done to develop British television over there, but much of my time and most of my energy on that trip were devoted to giving broadcasts on the international situation. I felt it urgently necessary to rouse Canadians to the dire peril in which they stood together with us British and all the peoples of the free world, and my broadcasting tour in the Dominion led me on to the one-man crusade which absorbed me utterly from September, 1939, until victory had been won. But I have told the story of my lone fight on the air to enlist America's support for Britain in another book, recently published under the title of *God Help America,* and it is only the story of John Baird which need here concern us. He was sorrowful when I left England again, but he knew that I had to tackle the biggest job of my life and, knowing that, never felt that I had deserted him.

Sometimes, it is true, he used to reproach me in his letters for not writing to him more regularly. In November, 1941, for instance, he said: "Your letter (the first I have had for months!) arrived yesterday. Since I last heard from you I have written three times—once by air mail—and got no reply. Hence the 'dirrty dog.' However, perhaps your replies or my letters are at the bottom of the sea."

Perhaps they were; perhaps, and more probably, he had changed his address once or twice in the interval and my

replies had not caught up with him. In any case, dear old John was one of the very few people in England with whom I kept up a regular correspondence. I had no time to write to anybody but my family and my closest friends, for I was broadcasting every day—sometimes twice or even three times a day—and tens of thousands of American listeners poured their comments, their criticisms and their endless questions into my mail bag. The consequence was that I had scarcely any time to spare for television—except in connexion with Baird himself and on his account—and had to keep even my letters to him shorter than usual. But we never lost touch with one another.

I remember particularly, because of the gallant pathos which I read into its few words, a cable John sent to me just before Christmas, 1939: "Company unable to carry on through lack of funds," it began. "Note-holders have installed Receiver. A merry Christmas and happy New Year!"

That cable was a shock to me because I did not know that the affairs of the Baird Company had come to such a desperate pass. I wrote off at once to a friend of mine—A. S. Andrews, chief editor of Sir Isaac Pitman & Sons, Ltd., publishers of several of my books—and I am afraid I reproached him unreasonably for not keeping me informed.

"My dear Moseley," he replied. "So the 'cat is out of the bag' at last! We have all been wondering where you were. Baird said he had no idea and we were at a loss to know your whereabouts.

"I imagined that you obtained the Admiralty job, and that one of these days you would blow in wearing the full regalia of an Admiral of the Fleet, or at least one of his satellites, and would tell us quite a story of naval warfare. However, that is evidently not yet. . . .

"You say that no one had the sense to send you a copy of the Baird announcement, but presumably very few people knew where to send it. However, I can give you the details. The Receiver and Manager . . . was appointed early in November last. The motion for his appointment

was by . . . plaintiffs in the debenture-holders' company. The judge was Mr. Justice Crossman, and the ground for the appointment was that Bairds were unable to carry on business, which, said the Judge, was substantially jeopardy. (To the interests of debenture-holders, of course.)

"I have had a word or two with Mr. Baird over the telephone since then, and he gave me to understand that there would be no doubt about the business being carried on after the war." (Poor old John! *He* never would have had any doubts on that score!) "For the moment there are, of course, no television broadcasts and no sales whatever for television receivers. Nevertheless, it is a dismal end to all the high hopes with which the Baird Company has been sustained for so many years."

A dismal end, indeed, but not, in view of all the circumstances which I have described, an unexpected one. What saddened me far more than the appointment of a Receiver for the Company, however, was the news I got some months later from Ruth Maschwitz Smith, my former secretary, that John himself had left the board of his own company.

However, Baird made his own choice and it was not the one I would have made for him. But he probably *had* to make it as things were. I hated to think what a blow it must have been to his pride—as well as his pocket.

Not that Baird was ever inclined to "chuck up the sponge." His faith in himself was always strong enough to keep him from despair and reverses of fortune simply drove him to work harder than ever. Instead of bemoaning his bad luck he became absorbed in fresh projects and wrote to me about them with quenchless optimism.

I was glad to find him taking his set-back in that way, but I could see no future for British television until after the war, so I naturally did what I could to find Baird a useful opening in America. Some considerable time before the Receiver was put in I had anticipated that the company would have to go—at least temporarily—out of business and had begun to press John to join me in New York. On 31 October, 1939, for instance, I wrote to him:

"Dear John,

"You are probably getting information from my 'missus.' I have been seeing the British authorities here and have been doing some fairly good work one way or another.

"Are you still staying with the Carstairs, and how is he and his wife, and how's your own brood? When are you coming over? There appear to be many new developments in television here and I think, instead of footling your time away in England, you would do better work over here.

"Send me a cable whether you can come. My kindest regards to Carstairs.

"All the best,

"SYDNEY."

That was only one among many such letters and I backed up my invitation by telling John that I would gladly pay his fare out to New York and that I had made important contacts which, I felt certain, would result in his coming to the top again. In mid-January, 1940, he sent me the following reply from Sydenham:

"Dear Sydney,

"I have been ill with a bad attack of influenza and envy you at Long Island, but it is not so easy for me to move even if my fare were paid. The position is that the company will very shortly be sold to the highest bidder—that means Gaumont–British. When this takes place they will either (*a*) reconstruct, (*b*) absorb the assets into G.–B., (*c*) close down for the duration of the war.

"Until a decision is made I should be on the spot, or I might well lose an important opportunity. The present company will, so far as I can make out, go into liquidation, but, as usual, no decisions are being made until the last moment.

"The men we had in New York are still there and I believe are giving demonstrations, but whether or not there is any hope there I cannot say.

"I am very far from busy and prosperous but am continuing research and paying my three men and buying material *out of my own pocket.* I have still got faith in my work!

"If you would let me know what the project or programme is which you have in mind I might be able to fix things, but

so far all you have mentioned clearly is the fare.[1] Before taking a decision which might well be a matter of life or death (financially, if not otherwise) I feel I should know something about what the proposition is. I hope to have something to tell you in a few weeks' time.

"Hope you are enjoying yourself.

"J. L. B."

Far from enjoying myself, I was working in America harder than I have ever done at any other time in my life and I should not have taken as many pains as I did to find a good opening for Baird had he not been my best friend. In fact, however, I had got into touch with the most important concerns in America and knew that they would jump at Baird if only I could present him to them in person. It was not possible to get a firm offer from them before they had seen him and heard from his own lips what he was working on.

If he had taken his courage in both hands and come out to America at that time he might have made a great deal of money and perhaps—who knows?—he might also have built a greater reputation for himself out there than ever he did in his own country. Instead, he simply dithered.

I do not altogether blame him for that. He loved the freedom of his own laboratory and it would have been a great wrench to part from his faithful assistants. Then, too, he could see no immediate hope that his family would be able to follow him to the States and, in addition to all that, he was continually falling ill. Incidentally, I doubt whether he could have lived through a New York winter, though, for that matter, I would have made sure that he would not be expected to pass one there.

Actually, of course, if anything could have tempted him to America, it would have been the warm and fog-free climate of, say, California, where he did suggest that he might settle down if I could organize a new company for him there! Right up to 1945 his letters to me showed that

[1] My American friends offered to pay all his expenses in New York pending negotiations.

he was prepared to cross the Atlantic *some* time, but not just then. I have kept dozens of these letters and am reproducing some of the more interesting passages in this chapter.

But Baird, so often single-tracked in his conversations—though he could talk fascinatingly on general subjects when he was in the mood—was almost equally single-tracked in his correspondence. His letters had occasional flashes of humour and now and then one of his old outrageous pieces of leg-pulling, but he scarcely ever wrote about the ordinary, everyday happenings in his own life. Now and then I got a glimpse of them, however, from other sources, and a letter from my wife about one incident made me laugh as nothing else had done from the time I had left London.

Naturally enough, Baird spent as much time as he conveniently could with his wife and children in Bude, but after he had taken enough sea air into his lungs to feel tolerably fit again he was apt to discover that it was urgently necessary for him to rush back to his laboratory in Sydenham. And, of course, even when he was within sight and sound of the sea, which he loved almost as much as I did myself, he would sometimes fall suddenly into a fit of abstraction and then sit down with pencil and paper to work out a new inventive idea.

It was on one such occasion that poor John came near to being arrested as a spy and I cannot describe how this happened better than in my wife's words.

"Did I tell you," she wrote, " that I had been to see Mrs. Baird? It appears that Mr. Baird was in Bude for a few days and one morning he was sitting on the beach—in rubber beach-shoes, a cap, hair all over the place, his glasses broken and patched up with sticking plaster, and doing his funny little sketches in his notebook. . . .

"Then the police turned up. They questioned him and insisted on looking at his notebook, full of diagrams and what seemed to be references to some kind of liquid fire! Mrs. Baird tells me he was most indignant about it all, but

you know how funny and curious he looks, so it is no wonder they thought him a suspicious character, especially with his notebook full of queer technical figures and diagrams.

"Still, fancy the inventor of television being taken for a spy! I should love to have been there when Mrs. Baird turned up to fetch him from the beach in her car. She said she noticed the police take down the car number and only wished she had been there when they were interrogating him."

My wife thought that this would amuse me and so it did, immensely. But it did not amuse Baird. When the local constable first asked him what he was doing, his bewilderment and indignation were so great that he spluttered quite incoherently. That did not help matters and the officer was just about to arrest him when Mrs. Baird arrived on the scene. Baird was very crestfallen to find that his name—he did just get that out: "I am John Logie Baird"—meant nothing at all to the local Force. The police finally took Mrs. Baird's word for it that her husband was a famous inventor, not a wild revolutionary or enemy agent, but one of them was still shaking his head and muttering to himself as she towed the great man to his car and whisked him out of harm's way! Fortunately nothing got into the Press about this incident and John calmed down when he was finally convinced that it had not been reported.

For the most part, I suppose, those wartime years passed uneventfully for him. At all events he did not tell me in his letters about any important happening in his private life except on one occasion, when he lost his dear friend, "Mephy" Robertson. It was in June of 1940 and Baird's agitated scrawl reveals how deeply distressed he was; even though he characteristically brought in the latest about television.

"Dear Sydney,

"I have just received a very nasty shock. Poor Robertson has killed himself. He said nothing which would have given any hint of what was in his mind, but went out after breakfast

and gassed himself in his herbalist shop. The war was getting him down. Ryde, being opposite Portsmouth, was in the thick of it and it must have become too much for him. A very sad affair.

"We are still dragging along here. The company will be finally liquidated in a few weeks' time. I am continuing my research work at 3 Crescent Wood Road, and have now my own apparatus and equipment so that I am in fact a separate company paying my own staff of three men. I think we are doing good work and I will hold on as long as possible in the hope that the war stops soon and it will be possible to raise funds. If the war continues too long I will be sunk, but I don't suppose I will be the only one in that state!

"I have sometimes thought of moving the whole menagerie to Canada or U.S.A. but it bristles with difficulties. I would not like to leave my assistants in the lurch, nor do I like the thought of leaving the country.

"However, things are moving so fast that by the time this reaches you the whole situation will probably have changed."

I knew and liked Robertson myself and understood how keenly Baird must have felt the loss of one who had stood by him through thick and thin. And yet his brief comment —"A very sad affair"—was typical of him: he hated to display his feelings.

All his letters showed how immersed he was in his research work and business worries. In some of them, however, between the lines I could sense and detect a wistful longing for a fresh start in a sunnier clime. Often he disguised his real feelings under a show of banter. Thus, writing to me from an hotel on Dulwich Common in November, 1940, he appeared to make light of another invitation to America.

"Dear Sydney," he began, "I was glad to get your letter and hope when this business clears it may be possible to come out and spend next winter in California.

"What part had you in mind for me to play—lectures or acting in the pictures? (I did a little in this for a film the Post Office were making on the History of Television.) Or had you in mind the formation of a new Company in

U.S.A. or Canada? Everything here is in the melting-pot. I do not know what will emerge. I hope there may be a revival—this waiting is a nerve-racking business but I must hold on."

That was the dogged Scot speaking: he *had* to hold on. And yet, although his own brief experience of the United States had proved "anything but encouraging"—witness his vividly ironical acount of it in another chapter!—Baird was quite shrewd enough to realize that the real "land of opportunity" for him lay on the other side of the Atlantic. So much was this the case that he went to great pains to send me a list of his patents, together with a short résumé of the history of Baird Television, in an envelope marked "Private and Confidential." In setting it out I noticed that he had converted pounds into dollars (at the prevailing rate of four dollars to the pound) presumably to help me in my negotiations with American Big Business.

Seeing that this document gives succinctly, as he himself saw it, the whole story of his efforts in the television field, I think it is worth reproducing the substance of it here, even at the risk of some repetition. In doing so I have, of course, reconverted the dollars into sterling. His memorandum, with a personal covering letter, opened tersely as follows:

"In 1925 Mr. Baird had succeeded in sending shadows by television. He formed 'Television Limited' (capital, £500). In 1926 he demonstrated the television of real images, this being the first time television had been achieved in any part of the world.

"Messrs. Vowlers became interested, and in 1927 the Baird Television Development Company (capital, £30,000) was formed. In 1928 Baird transmitted television across the Atlantic, and shares in Baird Television rose to high prices. Shortly after this the Baird International Television Company, Limited, was formed, with a capital of approximately £125,000.

"Baird's invention was investigated by a committee appointed by Parliament, including the experts of the Post

Office and the B.B.C. who reported it 'A Notable Scientific Achievement,' and recommended that the B.B.C. should give Baird facilities for broadcasting television. Shortly after this, transmission on the Baird system started from the B.B.C. in London and in Berlin by the German Post Office.

"In 1932 the Gaumont–British Company acquired a controlling interest in the company.

"By this time rivals were appearing in the field. The Marconi Company and the Electrical and Musical Industries, Limited, combined their television interests, and in conjunction with the Radio Corporation of America produced a rival system of television to Baird's. Other firms also had systems.

"A Government Committee was formed to investigate: they reported that the systems recommended were the Baird and the Marconi–E.M.I. and that they could not choose between them, and therefore recommended that the B.B.C. should use both over a short period and then come to a decision. The B.B.C. finally chose the Marconi–E.M.I. System.

"The position at the outbreak of war was that the Baird Company had arranged with the Gaumont–British to install large-screen television sets in fifty of its theatres and they were also in a very promising position with their home sets which were considered the best on the market.

"When war broke out television broadcasting stopped immediately and the whole television industry closed down. Gaumont–British, who were then large bond-holders, placed the company in the hands of a Receiver.

"Mr. Baird's contract terminated with the appointment of the Receiver after the outbreak of war. Since then he has continued his television work in his own laboratory.

"THE PRODUCTS OF THE JOHN L. BAIRD'S RESEARCH LABS.

"1. *A de-luxe super-screen Teleradiogram.* This model has already been built and demonstrated. It shows a picture two foot six inches square. This is the largest

picture for a home television ever built or shown.

"This de-luxe model is fitted with four push-buttons. These bring into action:

(*a*) An all-wave set.

(*b*) An automatic record-changing radiogram.

(*c*) The B.B.C. television programme.

(*d*) The Baird Colour Television programme.

(*e*) The *Baird Stereoscopic Television* programme."

After this imposing model had been thus described, Baird's report, or survey, went on to list six other "Products," including medium and small receiving sets (also able, it was claimed, to show colour and stereoscopic effects); large-screen televisors suitable for cinemas and theatres; spotlight transmitters for broadcasting studio scenes in colour and relief; a "Facsimile Television" machine (under construction) for the transmission of documents, diagrams, photographs and the like; *and* cathode-ray tubes!

Yes, he had resigned himself at last to the inevitable and in this report he said: "Mr. Baird is now making his own improved-type cathode-ray tubes. *These are the most important items in a television receiver* and it is intended to manufacture and sell them to the public and to television-set makers." In his heart he must have known all along that the cathode-ray was destined to supersede his own or any other system of mechanical scanning, but his stubborn Scottish head would not admit the truth until too late!

The report concluded with an impressive list of the patents Baird had taken out in the United Kingdom and a still longer list of those he had applied for. I thought at the time that John really had made up his mind at last to come out to America. But no; he just went on writing to tell me that, for one reason or another, he could not get away just yet.

"I cannot very well come over to New York during the war," he informed me from Sydenham in November, 1940, "but will probably come over when it finishes." Then came one of the little digs at me which he loved to make: *"I spoke to Churchill about letting you run the war, and he*

tells me he will consider it!" And after that it was back to television again:

"I am glad to say things here are looking a little brighter. I have a very fine colour-television picture, and also I am working on a large screen which should give a picture ten to a hundred times as bright as the present system, and furthermore the projector will be able to go in the operating box and not in the auditorium as at present. Perhaps something can be done in the States, if not now, later. If you have any ideas on the matter let me know. Things are developing here rapidly, and I will probably have some news for you within the next three weeks.

"Best wishes—J. L. B."

He was working and planning all the time and I do not think I ever had a letter from him which was not to some extent a progress report. "I have a really good picture—the best I have ever seen," he wrote from Bude in February, 1941, "and as my overheads and other expenses are very small (total staff three) there will be a fortune in it after the war. *I intend to back Baird to my last penny*—but may have to bring in others to get sufficient finance. Can you do anything in the U.S.A.?"

John's faith in my ability to work any business miracle flattered but embarrassed me. It was not so easy to "sell Baird" to American business *unless he was there in person.* In April of 1941 he sent me from his Sydenham laboratory a copy of the first television photo in colour. "Can you do anything with this in U.S.A.," he asked, "a syndicate to buy the American rights? I may form a small private company in England. I am running on very economical lines," [He had to, poor fellow; it was not his natural tendency!] "and have only two junior assistants—even less than the old Long Acre days, when you chopped off all the heads!

"I live the life of a recluse at present and see nobody. Carstairs, however, is on the 'phone frequently. He seems to be keeping his head above water—no easy matter at present.

"And Hutchinson has a small farm outside Brighton. I met Mrs. H. (Rosie) looking very prosperous in Scotts' Restaurant. She told me she did the milking and asked me down for the week-end. *If only you were here we might start another Television Limited!* Best wishes J. L. B."

His letters to me were nearly always initialled, not signed although I was one of the few—indeed the only friend—whom he addressed intimately when we were together. Even those whom he knew well he addressed with punctilious formality. I was really interested in his colour-television improvements and asked for more particulars, at the same time urging him once more to come to New York. I was confident I could have put him on his feet again.

In reply—May, 1941—he sent me a cutting from the *Radio Times*, which showed that he really had made important advances. "A week or two ago," this cutting began, "we made a mention of colour television. Now we have seen it for ourselves. John L. Baird gave us a demonstration of the system on which he is now working; he has been showing colour television in one form or another since 1928. He is now using six hundred lines, which is very much higher than the standard officially fixed for black-and-white television at Alexandra Palace before the service was closed down by the outbreak of war.

"It was thrilling to see colour television of so surprisingly high a standard on a screen two foot six inches by two foot, which, by the way, forms part of a colour-television-radiogram that is the radio fan's dream of a set."

John's covering letter gave further details of his progress with his invention. "I have a staff of two," he said, "with total wages twelve pounds. We make everything ourselves. I have a fully equipped laboratory." (This was the one at Sydenham in a bomb-damaged building.) "And I have a complete Colour and Monochrome six-hundred-line Television Transmitter. I have eight provisional patents covering inventions which I believe to be important, though I still have to take these out in U.S.A. And I have the

goodwill and reputation resulting from twenty years' work.

"My suggestion is that you form a small syndicate to acquire the rights for the U.S.A. I would be prepared to come over after the war and bring my apparatus and give demonstrations. I have in mind the possibility of opening a television station in California where it would be possible to work in comfort and avoid the awful winter. . . .

"My position over here is very difficult, but I can still carry on for a time on my own. . . . I am very glad you continue with your broadcasting. This is probably more useful than anything you could do over here. I would suggest, however, that, if facilities can be obtained, you should make a visit to London. I think it would add enormously to the strength of your position and help your propaganda efforts immensely. . . .

"I am sending this by air mail and hope it is sufficiently loquacious! Best wishes—J. L. B."

Was there ever another such lovable and yet maddening fellow? He *knew* I was doing work of vital importance in the States; knew it left me no time for other business and knew, too, that the only way I could help him was to have him in America with me then, not after the war was over. But he could not leave London and so would I form a syndicate to acquire his patent rights! Yet in order to get to him I suggested to my friend Maurice Gorham, of the B.B.C., that he might arrange for me to fly over to London and do a few of my American broadcasts from there. Maurice replied dissuading me from jeopardizing the hold I had obtained on a vast American listening audience.

I managed to make one of my periodic trips back to London a little while later, for otherwise I should never have seen my old friend again. My brief business was with the Ministry of Information, but the moment I had time to do so I made inquiries to find out where John was living. Then I wrote to him and the next morning he was on the 'phone to me. He was evidently excited and yet, before he uttered a word, there came to me the old deep-drawn,

familiar sigh with which he had nearly always prefaced such conversations.

I can remember times when he and I were both rushed to exhaustion with his business affairs and I would be wakened from precious early-morning sleep by the accursed telephone bell, pick up the receiver and *then* hear nothing but that sigh until I shouted at him to say what he had to say and let me go to sleep again. But the sigh delighted me on this occasion. I should have been disappointed if he had omitted that mournful intake of breath. And he found words almost at once this time. "Ah, Sydney, you dirrty dog," I heard him say, "why don't you get a car and come out to see me?"

So I got a car and my wife and I drove out to a rather shabby-genteel South London suburb, where Baird was living in one of those "quiet" residential hotels which cater for decrepit old rentiers and aged ladies. It had the atmosphere of those superior boarding-houses which I had known and shunned in my youth.

John greeted us with the nearest approach to delight he ever permitted himself and led the way to a cold and lifeless drawing-room occupied solely by a grey-haired old woman, busy with her knitting, but not too busy to listen to every word we had to say.

"Let's get out of here," I said to him in an urgent whisper, and we followed him along a dismal corridor to his bed-sitting-room, indistinguishable from a dozen others in which I had visited him over more than twenty years. The windows were closed, the electric fire was full on and on the bed was an untidy heap of clothes.

We started "fooling" at once and the hotel's aged inmates must have been surprised to hear Baird's gusty laughter and my own chuckles. When we first arrived he had walked softly and spoken in low tones, almost as though he were afraid of waking the dead-alive to life. Soon afterwards he was his old self again, boisterous as a schoolboy and inclined to horseplay. Eventually we drove to a tea-shop he recommended down the road and there we talked about the past

and the future, yarning interminably about old friends and new opportunities.

Baird, who was looking older and more tired than when I had last seen him, shed his cares for once and, laughing at my sallies, responded to them in his best vein of pawky humour. We left him, greatly cheered by our visit, after he had arranged to lunch with me at my London club a few days later.

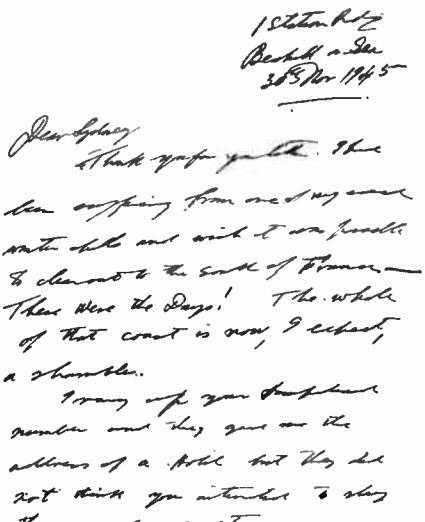
But I never saw him again. The Ministry of Information decided that my place was back in America and gave me priority in a plane taking off within forty-eight hours. I had time only to say a hurried goodbye to him by telephone and to tell him that he would have to keep our next luncheon date in New York and not to keep me waiting too long.

I hated the thought of leaving him in that bed-sitting-room, but it was a consolation to know that—thanks to a fine act of business generosity, of which more anon—he was sure of a sufficient income and, what was more important to him, the means to pursue his researches in comfort.

Soon after I had again returned to America there came to me another letter—one of the last I was to receive from John Logie Baird. It is reproduced on page 244.

At the beginning of this book I have told what a shock it was to me to learn—by the casual switching-on of a short-wave radio set tuned in to London from Switzerland—of my old friend's sudden death and how cruelly disappointed I was not to have had that final holiday with him to which we had both so eagerly looked forward. It may be, however, that Baird himself, worn out by incessant hard work, disappointed of the great success he had longed for and physically enfeebled by successive illnesses, was not reluctant to set out upon that final exploration to which all mankind is committed in the end.

Here I have tried to present some picture of the closing years of his life, but it would not be complete without acknowledgement of the debt which Baird, his family and all his friends owed to the great firm which paid such generous tribute to his fine life's work. I refer to the Cable



1 Station Rd
Bexhill on Sea
30th Nov 1945

Dear Sydney
Thank you for your letter. I have been suffering from one of my usual winter chills and wish it was possible to clear out to the south of France—These Were the Days! The whole of that coast is now, I expect, a shambles.

I rang up your Hampstead number and they gave me the address of a Hotel, but they did not think you intended to stay there any length of time, so I am sending this to the R.A.C. I hope it gets you before you go.

If no reply, I will write to 2W. 67th St.! What a vision that brings of those nightmare New York days—with gangster bell-boys—hard-faced insolent inhuman waiters—and all the hard brassy vulgar discomfort of those "Luxury" Hotels.

Let me know your moves,
Best Wishes,
J. L. B.

and Wireless Company, as it was before the Government took it over.

Anxious to have the facts at first hand from the man best able to supply them, I met my friend Sir Edward Wilshaw, K.C.M.G., who was chairman of the company during the relevant period, and asked him to tell me the story in his own words. This he promised to do after referring to his files. In the following letter, written from Electra House, London, on 7 August, 1951, Sir Edward gives the authentic story:

"My dear Moseley,

"I arrived at the office this morning from Scandinavia, where I have been on holiday with my wife, and I write at once to give you the information which you desire.

"The story is as follows. Away back in the old Eastern Telegraph Company days, when I was secretary, Baird came to see us with his then manager, to see if he could interest us in his activities.

"We went into the matter and found that, although a genius himself from the scientific point of view, he was no financier, and he had placed himself from time to time in the hands of others. It was therefore not possible for us to help him. I, however, kept in touch with him from time to time over a period of years, and I had also visited his laboratory and was much impressed with his development of large-screen coloured television.

"However, war broke out and he came to see me to say he had no funds and would have to shut down his laboratory at Sydenham and dismiss the few rather exceptional men who had worked with him over a long period of years and who would be irreplaceable if he started up again. He was very depressed and disconsolate and, after going into the matter carefully and in detail, I told him that we would take him on as a consultant at a fee which would cover the expenses of his laboratory and staff and so enable him to keep his men together and to go on with his experiments.

"I told him that his appointment would be unconditional and there would be no agreement, and that we would not tie his hands in any way. We simply wanted to help him during the war period, but we would like him to devote part of his

time to the development of television in its application to telegraphy, and if anything came of it, or of television, he might feel—although under no obligation whatever—that, as we had been kind and generous to him, he might give us the first opportunity of benefiting from his experiments.

"He came to us, and we provided him with accommodation for himself and facilities (within reasonable limits) for experimenting, but in so far as the application of television to telegraphy was concerned, he wanted one of our main transmitters placed entirely at his disposal for experimental purposes. This, of course, was not a practicable proposition during the war, as we were short of transmitters, and the increase in Government and Service traffic was very heavy, but we still kept the arrangement going with him until his premature and rather unanticipated death, and we had the satisfaction of knowing that we did our best to help a genius during his time of financial difficulty. Had he lived longer I had no doubt, and I still have no doubt, that the ultimate end of telegraphy will be some form of picture transmission of the written word rather than the mechanical process of punched slip.

"Years ago I also endeavoured to bring about an arrangement between the Marconi Company and Baird for a joint company to develop television under the name of 'Marconi–Baird,' or 'Baird–Marconi,' but at that time I had not the influence which I had later and so it came to naught. . . .

"I consider that Baird was a genius—his premature death was a great loss to science. I have the happiest recollections of him and some satisfaction in knowing that my company, through kindness of heart and on purely humanitarian grounds, eased his path during the war up to the date of his death, and enabled him to carry on with his experiments.

"My kindest regards.

"Yours sincerely,

"EDWARD WILSHAW."

Sir Edward Wilshaw did not mention in this letter but he told me that his company paid Baird a thousand pounds a year—while he was working at whatever he liked and for whatever purpose he chose—up to 1944, and continued to pay him £500 a year thereafter, when, through ill health, he could work no longer, up to the day of his death.

CHAPTER TWENTY

DEATH OF JOHN BAIRD— WHERE DOES HE STAND TODAY?

IN THE WINTER of 1945 John Baird caught another of his severe chills which had been a curse to him in all his later years and, growing worse instead of better, his wife took him back from his work in London to their home in Bexhill where he died some three months later. Up to the last his mind was busy with plans for the future and particularly for the further improvement of his system of colour television which had already outdistanced that of all competitors.

The end came peacefully and really unexpectedly. He died in his sleep; only a few hours previously Mrs. Baird had telephoned my wife to let her know that he seemed to be making a slow recovery and was still longing to convalesce in some sunny place on the Continent. "Logie is sitting by me," said Mrs. Baird, "and I want to take him wherever he would like to go. Can you suggest a place?"

"Why not Switzerland?" my wife replied. "Sydney is there convalescing himself now, and I know he would love Mr. Baird to join him."

John seems to have brightened considerably when Mrs. Baird told him of this conversation. Unfortunately he had not received the last letter I sent him, although some parcels of sweets which I had posted from New York for Mrs. Baird and the two children had just arrived.

I said in the first pages of this book how eagerly I was looking forward to meeting my old friend again, but it was not to be. Mrs. Baird, describing his last moments, said:

"We had a night and day nurse for Logie, but the night

nurse was away at the time and I had put up another bed in his room and slept there. At two o'clock in the morning he called for something to drink and I gave it to him. Then he settled down and seemed to go back to sleep. At eight o'clock in the morning I went over to him and tried to wake him . . . he had gone."

Thus Baird's tumultuous and colourful life ended tranquilly. Mrs. Baird took his loss with great courage. She insisted, however, that he should be buried in Scotland rather than in England where he "had received so little recognition."

"I'll take him home," she decided sadly, and so it came to pass that a great son of Scotland was laid to rest in the little churchyard in Helensburgh near the place of his birth.

Poor John, who might have died a rich man had he chosen to take the offer made to him years before by Ian Anderson, did not leave a large estate. He had always been most unwilling to make a will. There was nothing superstitious about his reluctance to do this; he was actually afraid—at all events, for some years—that having been insured for so large a sum as £150,000 his life might be attempted by some interested party or business rival. I remember once when he and Hutchinson and I were about to cross a busy street in Brussels Hutchinson seemed nervous about Baird's crossing the street and laid a hand on his elbow to pilot him in safety. John shook him off. "I know," he said fiercely, "that you think I'm not to be trusted and that's why all of you want me to make a will."

I doubt whether he ever would have made one but for Mr. K. E. Shelley, who persuaded him to do so during his last illness. It was a simple document leaving everything to his wife. His two children, Malcolm and Diana, to whom he was devoted and of whom he was immensely proud, were left temporarily in the care of his sister, Miss Baird, as Mrs. Baird's health broke down for some little time following his death.

Both children have got on very well, says Miss Baird, writing to me towards the end of 1951. Diana, who is at

Glasgow University, is "very good at English and may one day follow your profession." Malcolm is studying at Edinburgh.

Never having received the generous recognition which he deserved during his lifetime, Baird would have been cynically amused, I think, to discover how much public tribute was paid to him after his death. The widely advertised Baird receiver must have been installed in a great many homes to remind those who used it of the "Father of Television," of whom quite possibly they had never heard during his long years of struggle. And then on 24 October, 1951, the London County Council did him honour by putting up a memorial plaque to commemorate his first experiments in television. This plaque is mounted on the outside wall of No. 22 Frith Street, Soho, where, in fact, John gave his first public demonstration in 1926.

Sir Robert Renwick, President of the Television Society, made the principal speech at the unveiling ceremony, and I was glad to find among the large gathering present a number of our old colleagues. Many of these men who had assisted Baird in his pioneer work have since achieved success in the same field. T. H. Bridgewater and D. R. Campbell, for instance, are prominent today in the B.B.C. television service; Mr. G. R. Banks is with the Marconi Company; Mr. Clapp is still with Cinema–Television and thus holds the record for long service with Baird and Baird's associates from the first days up to the present time. Another "old-timer" whom I noticed in Frith Street that day was William Taynton, who has earned a place in the history of television as the first live model to be televised. I do not think there is any doubt about this, although another excited young man came over to me and insisted that he had waited twenty-three years to put in his claim that he, not Taynton, was the first living model. The records are against him, however; it was the flickering image of Taynton which first appeared on the little screen.

Where does Baird stand today in the annals of scientific achievement? In America writers on the subject of tele-

vision have always paid him just tribute. The *New York Times* in its edition of 13 September, 1931, published a list of "Outstanding Inventions of the past Eighty Years." This list contains his name in one simple entry: "1926. J. L. Baird sends recognizable television images over a wire."

That entry establishes for Baird a definite priority in this new field of communications and I do not think there would be many well-informed Americans to dispute Baird's right to rank with the other world-famous inventors of the present century.

In Great Britain it is clear that Baird's pioneering work is becoming better known and more justly appreciated. Far from being forgotten, his name and his work form the subject of considerable controversy today, and I therefore thought it advisable to ask some of the men who had direct contact with my friend during his lifetime how they regard him at this distance of time.

I was particularly curious to see what Captain P. P. Eckersley, who was, during his brief but illustrious career as Chief Engineer to the B.B.C., principal critic of the Baird system, would have to say of it. He wrote:

"Dear Sydney Moseley,

"My view, with distance masking detail but revealing broad features, is that the world which enjoys today's Television Service is indebted to Baird for calling attention, *circa* 1927, to the fact that the existence of the valve and the light-cell converted television from the theoretical concept it had long been into a practicable possibility.

"Baird is to be honoured, therefore, among those who see past immediate technical difficulties to an eventual achievement; Marconi did much the same with radio. Neither Baird nor Marconi were pre-eminently inventors or physicists; they had, however, that flair for picking about on the scrap-heap of unrelated discoveries and assembling the bits and pieces to make something work and so revealing possibilities if not finality.

"If Baird, long before launching all the publicity, had quietly collected the physicists, technologists, resources, and so on, and had then come to the B.B.C. saying: 'Look!' and

the B.B.C. (being satisfied with what it saw and how what it saw was produced) had then started a service, not only would he have been the aphrodisiac of television, he would have been father and mother too! We must in the circumstances allot him the former, and more incidental if highly important, role.

"I hope these ramblings give you an insight into what were my views some twenty years ago. I see no reason, even now, to think they were wrong, but there is equally no criterion to prove that they were sound.

"Yours sincerely,

"(*Signed*) P. P. ECKERSLEY."

I am no technician and I cannot quarrel with Eckersley's considered opinion of Baird's contribution to the new science. Nevertheless, other men of no less standing would accord Baird a higher place than Eckersley finds it possible to do.

True, Eckersley's successor, Sir Noel Ashbridge, did not reverse the policy of his predecessor. But writing to me on 23 February, 1950, Sir Noel certainly recognized the fact that Baird had made important contributions to television generally.

"It is rather difficult to assess precisely the contribution which Baird made to the development of television," he writes. "That he made a contribution is undoubted, but whether it could be regarded as an important technical contribution would essentially be a matter of opinion. What is certain, however, is that he accelerated the development of television in this country by demonstrating that television in a usable form for broadcasting was not so far off as most people thought at the time.

"As to whether he was against cathode-ray scanning I really do not know. It is true that while cathode-ray scanning was under development in this country he was still working on the intermediate film method, but it is quite possible that he realized the next step was towards the cathode-ray method. In any case considerable credit is due to him for his perseverance and hard work in getting something going at an early stage which certainly inspired others

to do development work on a big scale, which in turn ultimately resulted in the system basically the same as is used today."

Considering the deep difference of opinion between these two eminent engineers, whose letters I have just quoted, and John Baird during his lifetime, these letters may be regarded as no mean tribute to my friend's memory.

I took care, however, to ask another friend of the early days, Sir Edward Appleton, F.R.S., for his views. The first time we met was during Baird's demonstration at Olympia, Sir Edward, who is now Principal and Vice-Chancellor of the University of Edinburgh, wrote to me in a personal note: "The more I look back on the old days of the 1920s the more I find to admire in Baird's character. There was an engaging simplicity about it."

In some interesting notes, which he enclosed for the purpose of this book, Sir Edward, who did such great work on "the Heaviside layer" and, of course, on radar also, said:

"Personally I found Baird to be a most lovable character, modest, enthusiastic, and always ready to give credit to other people. Naturally we've progressed since the days of his early experiments, but that kind of thing happens in most fields of science and technology. Baird deserves great credit for having pursued the objective of television in the home, with real single-mindedness of purpose, thereby encouraging others to join in the same contest. Like you, I shall always treasure the recollection of my friendship with him.

"Yours very sincerely,

"(*Signed*) EDWARD V. APPLETON."

As for Baird's many other friends, their letters to me may be summed up in the words of Lord Angus Kennedy who was associated with Baird in those early days and led the contingent of Baird engineers to Australia.

Lord Angus writes: "Poor Baird—if his luck had been better he might have done a lot—he was unlucky—a pioneer."

A pioneer he certainly was, but it may be that he would have gone further if he had followed up the ideas which

came so readily to his mind in the laboratory, using his own hands instead of leaving things to his assistants. One of the latter remarked in a letter to me that he thought Baird did not concentrate enough on the successive developments of his invention. He moved instead from theory to theory. I am sure that this is true, but it was not because he grew tired of his own brain-child. It was simply that the fertility of his imagination was inexhaustible and it left him little time for detailed and patient practical work upon one idea before another, no less important, succeeded it.

Some great men are quite unable to delegate any important work to their subordinates. John Baird, on the contrary, expected almost too much from his willing assistants. They were willing, and highly capable, too, but naturally they lacked his inventive flair. And thus they often found it impossible to follow up his brief instructions as he would have done himself if he had not been engaged upon some still more recent discovery.

I have made more than one previous reference to Noctovision, and I may say here that it gave several engineers the impression that it was the precursor to radar. This impression is not confirmed, however, either by Professor Appleton or by Sir Robert Watson-Watt.

Sir Robert, in a letter dated 27 September, 1951, told me that he witnessed a very early demonstration of Noctovision. He recalls two meetings with Baird, the second of which was at a luncheon in which they talked generally about television.

"My other contacts with Baird Television," he wrote, "included the giving of facilities for the television committee's comparison of Baird and E.M.I. and a visit to Berlin with one of Baird's co-directors in relation to cathode-ray methods."

Sir Robert clearly saw no connexion between Noctovision and radar and I must therefore accept Professor Appleton's positive assurance that the two inventions were in no way allied.

Baird's life's work, however, included many minor but

nonetheless important discoveries in relation to television generally. He never developed the curious experiments which resulted in what he called "Phonovision," but these experiments proved conclusively that all solid objects can be made to emit characteristic sounds. In effect, I suppose, the light which emanates from them can be translated into sound-waves, but whether John was ever able to pick up one of these translated sounds and to say positively this comes from a human face or a flat-iron, as the case may be, I really do not know.

His experiments in stereoscopic television were far advanced long before his death, but during his last few years he concentrated almost exclusively upon the development of colour television. He claimed, rightly I think, to be absolutely the first in this field and beyond doubt at the time of his death his system was in advance of anything which had been produced by any rival inventor. But it is as the "Father of Television" that Baird's name will go down to history. However many other research workers in different parts of the world were pursuing the same objective, the undoubted fact remains that John Logie Baird was the first man to transmit moving and recognizable images across space and through intervening obstacles to the viewing screen, and that achievement in itself entitles him to his place among the world's great inventors.

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