To start building a house at the age of seventy-one was no doubt somewhat optimistic but that is exactly what the writer of this article decided to do. The idea was not entirely crazy as he was assured of the able assistance of a very competent son-in-law, daughter and three young grand-children, all of whom had had some building experience. Without going deeply into personal affairs it perhaps should be mentioned that the reason for this rather drastic decision was a dislike of noisy neighbours and the need to accommodate an ailing wife on one floor to avoid stairs.

There were other less important but desirable requirements. We hoped for a south-facing site to allow wide patio doors admitting all possible sunshine, pleasant surroundings and nice neighbours. Yes, don't we all!

It does not pay to become too involved with difficulties at the start of such a venture. As Winston Churchill once so sagely remarked, 'The difficulties will argue for themselves'. This does not mean ignoring facts, merely not allowing improbabilities to become impossibilities without a fight.

Of course the first necessity was to find a suitable site and there is little doubt that this is the rock on which many hopeful argosies have foundered. In this case a tentative advertisement was put in a local newspaper saying, 'Is your garden too large? If you will sell me a plot I will build a bungalow to a design approved by you — subject to planning permission.'

Much to everyone's surprise a reply was received and a visit to the site produced the unanimous reaction, 'We must have it'.

In the grounds of what was once an imposing mansion, now a home for the elderly, a small number of houses had been built, some with large gardens. All were served by a private road leading to the home and the whole area was screened from the main road by a wooded copse or spinney. The site offered was level with a pleasant south aspect and only the meerest glimpse of another house. But there was, of course, a snag - the price. For one third of an acre the asking price was £9,000, which at the time in question was decidedly on the high side, even allowing for the obvious attractions of the site. Nevertheless a unanimous decision was made to take a chance on it, the problem of finding the money being tacitly shelved pending efforts to raise it.

Possessing a house already, it must be admitted that the main financial question was the cost of a bridging loan to cover the building period and outlay. This may sound as if it disposed of any real problems — it did not. Houses were not selling easily at the time and an otherwise friendly bank manager was anything but generous until, as he said, '..you have a contract signed for the purchase of your present home'. In fact, it was two years before a buyer could be found. The harrowing financial details are not relevant to this article.

So the plot was purchased, not without some proposals and counter-proposals, during which time despair was never far away. Eventually the deed was done and the deeds engrossed.

From the first glimmering of the idea it had been the intention to build a timber-framed bungalow. There were many good reasons for this. One was the experience of such structures in countries where they are common, and these are many. Another the fact that timber-framed buildings are erected

without water or mortar, except in the foundations, so that they are warm and dry from the start. In addition the speed of erection is so quick that it is possible to have a virtually weatherproof building in a matter of days and the very efficient insulation makes a significant reduction in heating costs. The final outside cladding offers a wide variety of choice — it is not necessary for this to be timber. It can also be brick, blocks, plastic or metal sheeting — almost anything that comes to mind. And it must be emphasised that the cladding does not contribute to the strength of the structure. Its main purpose is to provide an attractive appearance, although it does improve the insulation and weather-proofing.

A large number of plans from timber-frame component suppliers were studied and most of them discarded. Details of costs were studied with even greater concentration and the interesting literature provided by the Timber Trades Association combed for information on all aspects.

The original intention had been to sub-contract most of the work except decorating but the financial situation soon disposed of that idea. Son-in-law Paul, with a great deal of experience of converting, modifying and enlarging houses merely said, 'Well, we shall have to build it ourselves. It will take a bit longer of course.' In fact, it was only the timber-frame constuction that made further progress with the project possible.

In the meantime a rough plan of the layout of the building had been decided upon and the search for the best deal in timber components had narrowed the field. There was a wide difference in the package deals offered and some firms were remarkably poor correspondents. Possibly they got so many inquiries which did not lead to orders that they became dispirited. Because of the difference in the package deals offered it was necessary to cost items like plaster board which some firms did not supply and also things like tiles, glazing and odd items like door furniture in order to arrive at comparable figures. A small calculator would have been handy, not only for financial sums but for metric conversions.

Finally, it was decided to place the order with Reeves Frame of Newton Abbot, whose package contained literally everything to complete a timber-frame house. The firm also undertook the preparation of detailed plans, obtaining planning permission and indeed apart from actually building the bungalow could not have done more. Alas, that particular side of the business is no longer in existance. Perhaps they were too kind.

There are of course many firms prepared to supply the components for timber-framed buildings or anything from the basic materials to a comprehensive package. It is necessary for the prospective builder to study the market in depth and from the information obtained decide how much or how little he intends to rely on one particular firm. It would be possible to purchase the timber-frame alone and buy all the other components as required. This should make financing the project somewhat easier but would almost certainly increase the final cost. Indeed the job can be tackled in a considerable number of ways, allowing great scope for ingenuity and organisation, but anyone inclined to be timid would be well advised not to start.

To return to the bungalow in question:

Paul being a schoolmaster and living forty miles away, proposed to devote most of the summer holidays to the task of building. As soon as planning permission had been granted the timber-frame package was ordered and the site marked out. Paul also brought the family caravan to the site to be used as an office and as accommodation for himself and family during the holidays. It was an invaluable asset. This was some time in June 1975.

Among the many minor difficulties which seemed to crop some/ up regularly was the fact that the plot had grown a fine, lengthy grass and areas of daunting weed and scrub. This led, rather reluctantly, to the purchase of a ride-on rotary mower which proved its worth and soon had the site ready for the digger, hired at £24 a day to take out the footings and drainage channels. But first it had to take out a sizeable hole so that the building inspector could check the water table and decide whether a septic tank could be installed. This also involved some discussion with the water authority but eventually resulted in full permission being obtained.

It had already been decided that the septic tank should be a Klargester, a huge fibre-glass bottle, rather like a large decanter, although some wit suggested that it reminded him of a necessary article provided in hospitals. Many people got a good look at it and a number inquired its purpose, for it sat rather forlornly near the entrance to the site for five months or more. The hole would not run away and more urgent jobs presented themselves. In fact, this very nearly precipitated a major disaster, but that comes later.

The footings presented no problems to the digger which, with its owner and driver proved to be a lucky find. Unfortunately, a sensible provision was overlooked and led to

some hard work later on. The top soil of the area covered by the building, trenches for drains, services and soakaways should have been bulldozed to one side and eventually replaced over the garden. As it was, the digger had exposed some clay and gravel which it also compacted to the hardness of concrete. The dry summer of 1976 made it amost impossible to get a fork into it. This is not a mistake one would make twice!

The footings having been checked and the level pegs put in, the ordering of materials occupied some time, as did the provision of cash to pay for them. Paul possessed a

concrete mixer, bought way back for £10, second hand, but in order to make the best use of his time during the holidays the convenient but expensive ready-mixed concrete was decided upon. At the time the price was £11.50 a cu. yard and the source of supply only a couple of miles away. The site being flat and with plenty of room for vehicles to turn, drivers were able to chute the concrete straight into the footings which they did so expertly that levelling required only the minimum of effort. Certainly for this work the additional cost of ready-mix was more than compensated for by the saving of time and effort.

Concrete blocks, cement and sand had all been ordered and was ready on site when the work force assembled at the start of the holidays. Work on the foundations to damp course level proceeded fairly quickly. Laying concrete blocks in a trench is not easy owing to the restricted room and it is very hard on the back. Indeed there were times when morale was inclined to be low - certainly the owner's was - but nobody said 'We shall never finish this job' even if they thought it. Everybody weighed in - grandsons Andrew (15) and Tim (13) with granddaughter Kate (11) as well as Paul and daughter Jill. Wife Vera, much more poorly than we all realised, would sit in the sunshine and make favourable

comments. She did not live to see her bungalow completed.

Here it may not be out of place to emphasise the obvious fact that every minute spent on careful planning and organisation can save hours of difficult work later on. Once concrete and blocks have been laid and set, unless access for services have been accurately provided making the necessary holes or channels can involve some very difficult jobs indeed. Arrangements for gas, electricity and water, together with all plumbing and central heating must be planned in advance and allowed for as building progresses. Believe it or not, the chimney was overlooked up to the point where it eventually involved some tricky bricklaying!

As the design included a suspended wooden floor the oversite concrete did not have to have a float smooth finish. What was absolutely necessary was to have a dead level platform on which to erect the timber frame. It will be appreciated that with normal brick or block construction each course is checked for level as it is laid. With timber-frame the whole wall goes up in prefabricated sections so that any faults at the base are magnified at the top. This would cause the sections to lean towards or away from one another making obvious difficulties. A certain tolerance can be allowed and small irregularities overcome by the use of shims under the sections. So for timber-frame the cardinal rule is 'A dead level base on which to set up the wooden frames.'

Despite pessimistic suggestions the foundations went ahead remarkably well, considering the disparity in the ages of the work force. In any case the motto now had to be 'Press on regardless.'

The foundations having been completed up to DPC level the next job was to proceed with the oversite concrete. This mea

first involved ordering a large quantity of 'rejects'. These, as the name implies, are large stones rejected when gravel is being graded and are used to provide the solid base on which the oversite concrete is laid. Ready-mixed was again used and two deliveries, each of 6 cu. metres were not spaced widely enough. This gave the work force a hectic and exhausting time and resulted in the levelling not being quite up to standard. In fact this was one of the least successful operations and when it came to laying the sleeper walls, on which the floor joists had to sit level, there were problems. The sleeper walls were only two bricks high, which did not allow much scope for making good deficiencies in the levels. But it was done, if not in the best of bricklaying tradition.

About this time the suppliers of the timber-frame suddenly announced that their works would be closed for a week - or was it a fortnight? - in August. This of course upset the working schedule and meant the loss of valuable holiday building time. Nevertheless there was plenty to do and one very satisfactory job accomplished was the provision of the services - water gas and electricity. This had at one time presented considerable problems.

The bungalow site was served by a private road leading to the original large house and the gas and water mains were in the main road a hundred yards away. Electricity was carried by an overhead cable, the nearest post being about a similar distance. The gas company first quoted about £400 to connect a supply to the bungalow. Water and electricity looked like being very expensive also. Initial discussions were not entirely hopeful.

After a great deal of thought a useful discussion with the digger operator lead to the decision to dig a trench across the private road, through the spinney to the main road. No one knew to whom the spinney belonged unless it