others are straightforward. Some micros, such as the Sinclair Spectrum, have poor quality keyboards that make life a misery. At least there are add-on keyboards for the Spectrum that bring it up to an acceptable standard. Keyboards with extra function keys are good because they cut down on the number of command codes that have to be memorised. The screen display can also cause problems. Several micros show only a small amount of text on screen at once, which makes writing much harder. The Commodore Vic-20, for example, can only show text 22 characters wide, whereas business machines usually have an 80-character screen width. The ideal micro for heavy use is one that gives at least a 25-by-80 character text display and can use a proper monitor to give a clear sharp image.

The design of the letters shown on the computer screen varies considerably. Some machines make up each letter from more dots than others, which makes the display easier to read and work with. A few home micros use letters only six dots wide while most use an eight dot wide grid. A few business machines have remarkable 16-by-16 dot characters, which are of superb quality. Some people find it hard to work with a screen and have to print the text out on paper before they can read through it.

Modest home systems are suitable for writing letters and other short items, but more equipment is needed to make writing books or long reports practical. If you need to do a lot of word processing, you will need a system with a monitor, two disk drives, a good printer, a typewriter-style keyboard and a good piece of word processing software. Expanding a home micro to this level is expensive — often more expensive, in fact, than buying a true business micro.

Business machines offer other advantages. Because they were designed for business needs, they have good keyboards, screens, disk drives and printer interfaces. Even so, their most important advantage is the high quality software available for them. There is such a range of good software available because most business computers use one of a few standard operating systems, which means each word processor program is available for many different machines.

By far the best known business word processing package is Wordstar, which is available for the CP/M, CP/M-86 and MS-DOS operating systems. The program has some sophisticated features but is expensive, costing over 20 times as much as the average home micro program. The cost of a business word processor is high but it is a false economy for a small business, or even a serious writer, to use a home micro for large amounts of word processing. The time wasted using a limited system will soon outweigh any money saved.

The cost of serious business systems is high, but it is coming down all the time. Some home micros can be expanded to use standard operating systems such as CP/M, so people who have already invested a lot in a home micro system are beginning to be able to use serious software without having to pay too much extra. Another trend is helping to bring down the cost of serious word processing. Several companies are including word processing programs such as Wordstar free of charge with their computers. Some companies, however, give away programs that are not up to Wordstar's standards.

The newest fad to hit word processing is word processing on the move. Several battery-powered computers are sold with built-in word processors to allow busy executives to write memos and letters anywhere at any time. These machines are beyond the pocket of most home micro users and do not have many other uses. But hand-held machines do seem to suggest that word processing is becoming more and more common. Maybe not only the typewriter is doomed to extinction, but pen and paper as well.

## **Commodore 64**

The Commodore 64 offers the most reasonably priced word processor with a disk drive. Having only one disk drive is limiting and the Commodore 64 can produce only a 40character wide display. A cheaper Commodore printer is available at about £200 but its print quality is very poor

## Commodore 64 £200 Commodore disk drive £200 Easy Script software £75 Commodore 1526 printer £345 TOTAL £820

