'February' contain too many letters to fit into our adjusted columns, so these must be abbreviated. This is done by overtyping, remembering the quote marks to indicate text.

The next step is to enter headings for the various rows, moving the cursor down a line after each entry (unfortunately, Abacus does not provide this as an automatic facility). Our model assumes that the householder is a salesman whose income is made up of both basic salary and commission. The model allows income to be calculated on the basis of commissions on forecast sales plus basic salary. Actual sales achieved can be entered as the months pass, and revised forecasts can then be made for future months. Any negative values are displayed in brackets on the finished grid. These are the headings to be entered: Sales: forecast and actual; Commission; Basic salary; Total income; Expenses: Mortgage, Rates, Water rates, Electricity, Gas, Telephone; Total expenses; Net in or (out); Opening and Closing bank balance.

After column and row headings have been entered, we can begin to fill our spreadsheet with

income' row, the ECHO command is used. With the cursor still at B9 the system will prompt for a range over which to reproduce the underlining — respond with B14:G14. (If you forgot to leave spare rows when the headings were entered, these can be inserted by using the GRID command.) To complete the formatting, all the underlining should be 'justified right' by using the J command over the range B2 to G14. This will ensure that all the dashes will be aligned to the figures.

Expenses may now be entered, using the row formula for standard monthly figures such as the mortgage, or by simply entering each figure into the relevant cells for occasional payments like electricity and gas. Total expenses may then be defined as the sum of all these figures, in the same way that the total income was calculated.

Similarly, the net amount in or out can be calculated as the total income minus the total expenses. Unfortunately, Abacus appears to ignore any part of a command that follows a space, so we cannot simply enter row=total income-total expenses. We must therefore rename the total

ECHO COMMAND

DESIGN MENU

MONTH FEATURE
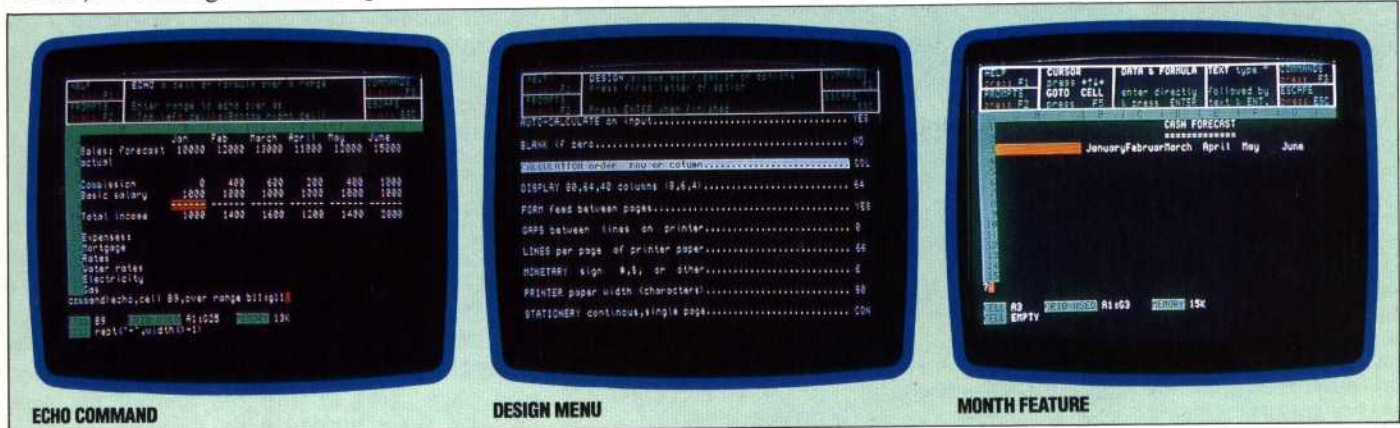
figures. First we'll enter the sales forecasts for the six months displayed on the screen. These are £10,000, £12,000, £13,000, £11,000, £12,000 and £15,000, but should be entered without the pound sign or comma. Actual sales can't be entered yet, so we'll continue by calculating commission on the forecast sales. This is calculated as 20 per cent of sales over £10,000, so the formula to be entered into cell B10 is row=(sales-10000)*.2. Once again, the range required is B to G; enter these letters in response to the prompts and the commission will be calculated and instantly displayed.

If the basic salary is £1,000 per month, this can be entered at cell B11 as row=1000, again over the range B to G. The formula for total income may now be keyed in at B13. This is row=sum(col) with a row range of 0 to 11 and column range B to G. This completes the income calculation, but the presentation of the model can be improved by adding rules above and below the 'total income' row. To do this, move the cursor to B12 and enter row=rept("-",width()-2). Abacus will respond by producing four dashes under each 'basic salary' figure. To carry out the same operation on row 14, thus producing dashes above and below the 'total

income line as 'income' and enter row=income-total, again for the range B to G. Each month's net inflow and outflow will now appear on screen.

The final step is to calculate the bank balances. First enter the initial balance — an overdraft of £200, perhaps. Enter this as -200. Now calculate the closing balance, using the formula row=net+opening with the cursor at B28, over the now-familiar B to G range. This will give January's closing balance. Opening balances for other months are calculated by entering at C27 the formula row=B28. To make this work over all columns, it is first necessary to change the order of calculation from row to column by using the DESIGN command. All opening and closing balances will then be calculated, and will be recalculated immediately if any figure is changed. As it stands, our model will depict negative balances as figures preceded by a minus sign. To change this format so that brackets signify a negative figure, we use the UNITS command and reply to the prompt with B.

Our model is now complete. It should be saved by selecting the SAVE command and an appropriate file name chosen. The model may then be printed out, or different figures entered.

Spreading The Word
Attractive screen design, good features and a large prompt/help facility makes Abacus a pleasant and easy spreadsheet in use. Here we show the ECHO command in use copying one row to another, the DESIGN command options for formatting the spreadsheet, and the Month feature producing the month names at the press of a key. Also featured are the default screen with the Prompts menu at the top, and the blank sheet showing the Command menu