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NEWS

HOW DOES THE HUMAN COMPUTER WORK? — PART I

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The human brain is a triumph of miniaturisation, the most remarkable computer in the world. Yet its nerve cells process only 100 or so instructions per second in contrast to the half-a-million that a microcomputer may handle. This makes the speed at which we perform very complex operations all the more astonishing. One of the most complicated tasks we are capable of is visual perception, which goes on in the cerebral cortex. Scientists are now steadily gaining information about how the cortical 'microchip' works: technically formidable opera-

tions such as injecting a recognisable 'label' into single nerve cells through a glass tube only one-half a micrometre in diameter are producing detailed information that is extremely valuable, not only in understanding our visual processes but in building the parallel processing systems that so-called fifth generation computers will use. (*Spectrum*, No. 204, 1986, p.2 – British Science News, British Information Services, British High Commission, New Delhi 110 021).