Mind and Machine

If the Samuel Butler of "Erewhon" were still alive he might be gratified, though still more alarmed, at the latest evidences of the tendency of the machine to get the better of man. Professor D. R. Hartree, who on his return from America to Cambridge has been discussing the performance and potentialities of the Electronic Numerical Integrator and Computer, would be a witness after his own heart. Though it is a popular misconception to endow ENIAC or the other members of the latest family of magical computers with "brains," and though "memory" and "judgment" are the only quasi-human attributes they can add to their uncanny accuracy in doing sums, Professor Hartree seems to suggest that ENIAC at least has a will of its own and is soon likely to impose it on the more learned section of the community. It is an engaging thought that the pundits of the world of mathematical physics should become the slaves of their own monster. Though it is a fact that the machine "can only do strictly and precisely what it is told to do," it is already dictating to mathematicians a whole field of new adventures hitherto neglected solely because of the laborious calculations involved. With its 18,000 valves and its twenty "memory accumulators," the machine calculates in minutes where man takes days; it never sleeps, and it is always asking for more. Not content with supplying it, the physicists have so far succumbed to the fascination of its appetite that they are already demanding something of still greater capacity. There is even the prospect that entirely new methods of approaching physical problems may be adopted to meet the opportunities offered by new machines; and before this generation has more than half-digested the differential equation as the basic way of formulating its mathematics some entirely new approach may have been substituted for it.