

The MAN of TOMORROW looks into 1959, and watches . . .

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# The Master Brain at Work

the master as soon as a product falls below standard.

Then the master-brain takes over, stops the production-line, spots the fault, corrects it, starts the flow of production again. All this is done by electrical impulse orders given to the brain beforehand.

**Result:** Wastage has been cut out. Products are of a higher standard than ever before. Output is up. Costs are down.

**Brain No. 2 remembers.** It works in conjunction with an electric sewing machine. Magic eyes watch the material and the brain remembers to stop the machine when the seams are reached, cut the thread, start the machine again for the next garment.

**Result:** Mass-production of garments is up by one-third.

**Brain No. 3 counts.** Screws, pins, buttons, pass through ten channels, and it can count them at the rate of 20,000 a second. Then it packs them, a gross at a time, into cartons. The brain, as soon as the cartons are full, switches on other machines to seal the cartons and label them ready for despatch.

**Result:** Mass-produced articles can be sorted, graded, packed, as fast as automatic machines can make them. Dreary jobs like grading, counting and weighing are eliminated.

**Brain No. 4 sees.** It keeps its magic eyes on 2,000 tiny threads passing through a high-speed loom. When a thread breaks, the eyes radio the news to the master-brain, which stops the loom, starts a tiny light flickering to show where the break has taken place.

**Result:** Output from our cotton mills can be increased.

**Brain No. 5 hears.** It detects the difference in sound between soft fruits and unwanted objects like bits of dirt falling on a steel conveyor. The brain sets mechanical hands in motion to throw out the obstructions.

**Result:** Britain's fruit-bottling industry has a new safeguard.

**Brain No. 6 tastes.** It knows the chemical difference between hard and soft water, or between water and beer. That knowledge, radioed to the master-brain, sets it to work turning taps on or off.

**Result:** Laundries, breweries, can improve their methods.

**Brain No. 7 feels.** Working faster than the eye can follow, it measures to the thousandth of an inch the length of knitting needles. Then it radios an impulse to the master-brain, which chops off the right length by automatically working a guillotine.

**Result:** The slow job of cut-

ting needles by hand has been abolished. Output of needles, for home and export, has been increased.

**COATLESS,** shirt-sleeves rolled up above his elbows, Sargrove works side by side with his team at workbenches littered with the tools of their trade—miniature microphones, photo-electric cells, electro-magnets and electronic storage circuits, which enable their "brains" to remember orders.

He already has a long waiting-list of eager young men who want to work for him.

Sargrove is the only man in the world to design a completely automatic factory and make it work.

His 70ft.-long electronic circuit-making machine, which looks like a "prop" from an H. G. Wells's futuristic film, turns out 1,500 complete two-valve radio circuits in eight hours. Twenty electronic brains handle eighteen processes involving thirty-three components. The result is four-fifths of a complete wireless set.

To achieve that result in the same time would need 600 technicians.

Sargrove's automatic factory needs only ten maintenance men.

Even the Americans marvel. "We've nothing like this over here," they

say, "except on paper."

**WHAT of the future?**

"Don't get the idea that we are out to rob people of their jobs," says Sargrove. "Our task is to liberate men and women from being slaves of machines."

"Though machines can turn out thousands of products an hour, men and women today have the tedious task of inspecting those products by hand."

"This is where we come in—to relieve them of this monotonous job so that they can do more interesting work beyond the capacity of a machine."

Mr. Sargrove is equally emphatic on another point—the impossibility of making anything to compete with the human brain in the variety of things it can do.

"Our products can do only what they are told to do," he says.

"They can't think. In my opinion, mechanical brains will never be able to think."

**It sees, it remembers. It hears and it tastes.**

**But can it THINK?**

**The answer is NO!**

Effingham (Surrey), Monday.

**P**UTTING the clock forward ten years, to the time when all the dreary jobs in British factories will be done by electronic brains, cost me one hour in time and 4s. 6d. in cash.

The money went on a third-class railway ticket, the time on the twenty-one-miles journey—and the two-miles walk from the station across the lonely common—from London to this tiny (population 605) old-world village.

I took a peep into 1959 through the half-open door of the large, green-painted wooden hut that was once the local village hall.

On the wooden floor where the local boys and girls used to dance at sixpenny Saturday-night hops, I watched young men (average age twenty-nine) of the Atomic Age making electronic brains that see, hear, taste, feel, remember and act upon the impressions they receive.

The locals call these young men Sargrove's Primitive Methodists. There are twenty of them. The youngest is eighteen. The oldest is chubby, small (5ft. 3in.) inventor John Sargrove himself. A forty-three-year-old Londoner with silver streaks in his dark hair, Sargrove has the blood of six nationalities in his veins. He also has the Frenchman's habit of expressing himself with his hands.

His hand-made electronic brains make you scratch your head and wonder:

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**B**RAIN No. 1 plans. It controls a production-line and is really half-a-dozen brains in one. The master-brain is given a picture of what the hundred-per-cent. product ought to look like. The sub-brains keep a close watch on the assembly line, report to