

## Keeping the Wheels Turning

**C**AST YOUR mind over a section of the Works you know, and think of all there is in it which makes production possible. Take the whole Chelmsford Works, buildings, offices, laboratories, workshops, machinery, the whole intricate layout is designed for one purpose—production. Now add to this picture all the various Company's premises in the Chelmsford area and we have some idea of the tools we need in this unit to do our job.

At New Street alone when everything is in full swing we see builders and carpenters at work; works maintenance staff and electrical and heating engineers are in every quarter. New buildings grow up under our noses, new machinery is moved in. Whole sections are moved and regrouped almost overnight, to carry out the plan of increasing our efficiency.

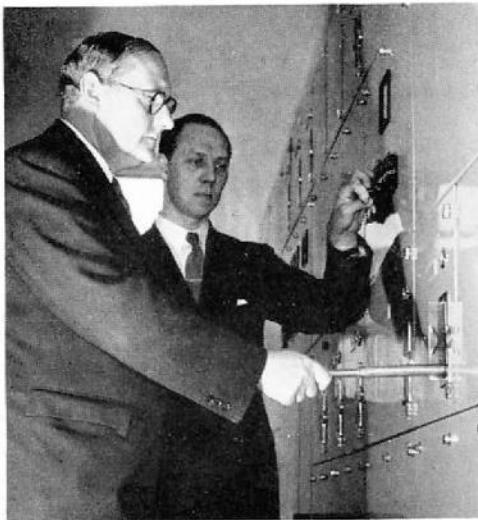
Behind all this is an organisation under the Works Manager, at the head of which is the Plant Engineer. He is

responsible for the multitude of jobs which keep the workshops going. It is his staff who maintain all buildings, plant and equipment and keep the machines running smoothly.

For many years this department has been run by the well-known father and son R. and L. R. Sargent. Mr. Sargent senior has been Plant Engineer from as far back as 1936, until he moved on to become Assistant to the Works Manager in May this year. Mr. Sargent junior, known all over the Works as Les, joined the Company in 1936. He went through the Assembly Shops and on to the Tool Room, and then through Plant Layout and Machine Tool Design Sections to become assistant to his father. His first job was the installation and running of the Treforest factory in Wales during the war. Now he has taken over, as Plant Engineer, responsibility for the installation and maintenance departments based on Chelmsford.

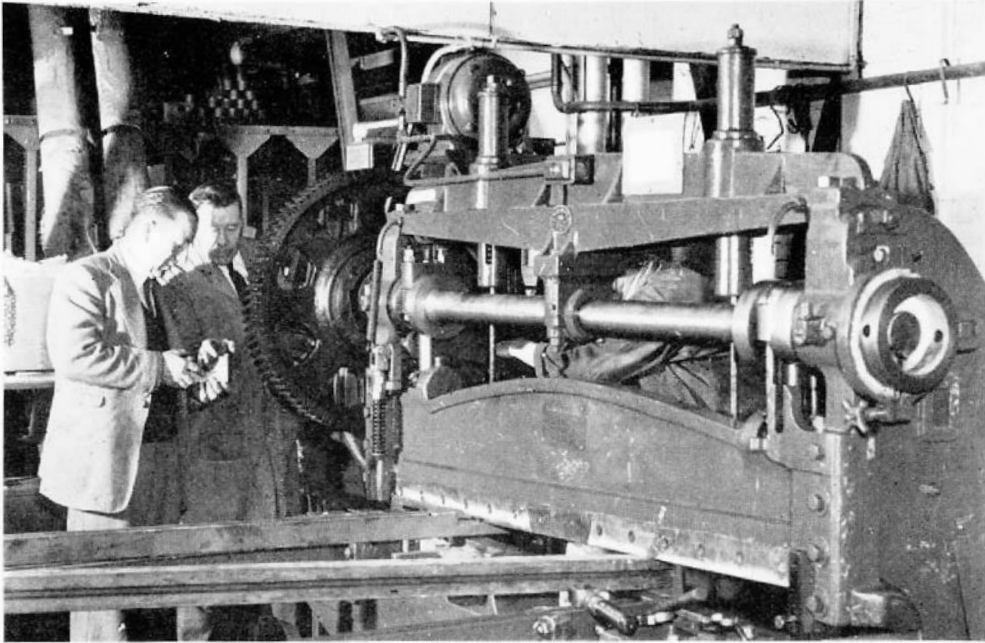
These Works have grown almost

*Chief Electrician W. J. Munday with L. R. Sargent, turning on power at the English Electric switchboard in the new College*



*Frank Lane (left), an assistant to the Plant Engineer, with Arthur Groves, who is in charge of mechanical maintenance at New Street*





*Mechanical maintenance sections are responsible for the smooth running of all machines based on Chelmsford. Len Hemmings (left) of Waterhouse Lane, who is in charge of the servicing of outside depots, with Ted Taylor, one of his chargehands*

*L. R. Sargent (left), with his father R. Sargent, who has been Plant Engineer since 1936. Les became Plant Engineer this year*



beyond recognition in Mr. Sargent senior's time. When he came all the machines in the shops were driven by belts and pulleys from shafting. Each section of shafting was driven by an electric motor so that to use only one or two machines it was necessary to run all the shafting from one motor. Gradually it was all changed and now each machine is self-contained and driven by its own motor. The safety of the operators has been the great benefit, and the workshops can be kept clean and are more economical to run.

New buildings, which are always in progress, were previously the responsibility of the Plant Engineer. Waterhouse Lane was started in wartime, and was put up completely by him. Alterations and additions are still going on there. Broomfield was a similar scheme and just when it was finished was bombed and blown up and had to be built up again. This also happened to two factories in London which were part of a big scheme of eight all fitted out by our Plant Engineer for war work,

and ranging from London to Wales.

Soon after the war the whole of Crystal Cutting Section was moved from New Street to Hackbridge, after a section of Aeronautical Division from Hackbridge had been moved to Croydon.

Always on the building rota there have been such jobs as the new drawing offices and workshop extensions at Writtle. The drawings for these were all made here under the supervision of our Surveyor, W. J. Laws. The building tenders were laid out, the contractors found and all the draughtsman's equipment and machinery for the workshops estimated and ordered. Writtle canteen was another job, major extensions to Baddow Workshop another. Radar huts have been built at Rivenhall with concrete floors, asphalt lined, complete with cable and air ducts. Experimental huts have been put up at Bedell's End.

The new Building 720 at New Street was erected by contractors, but the responsibility for the organisation of the delivery and installation of all the plant on the ground floor was the Plant Engineer's, as well as for the

furniture and fittings in the canteen above.

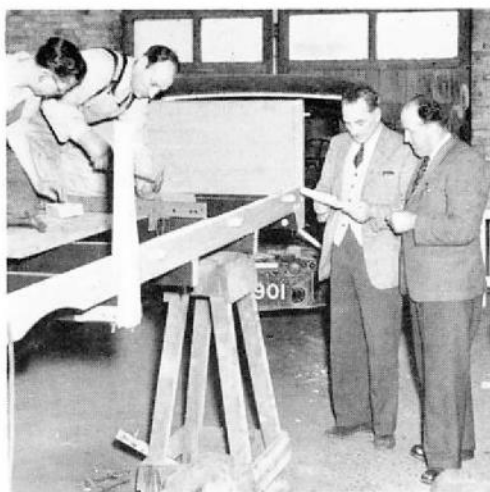
In the same way our wonderful new Paint Shop was built by an outside firm. The first drawings of what we wanted were done here and passed to the architects. Then the headaches of getting all the new spray painting apparatus on time and putting it in were the Plant Engineer's.

Soon after this came more Works reorganisation. VHF Assembly was moved to Basildon. The heavy machines of the Press Section at Waterhouse Lane were brought into the Tool Room, and Aircraft Assembly was brought in from the Skating Rink alongside Main Assembly. All the files of associated paperwork giving the necessary information, such as estimates, costings, time allowances and layout plans, emanate from the department's offices. The staff handle this organisation and that of ordinary maintenance too.

Throughout our premises the tentacles of this department weave their pattern. There are five sections which do the job of keeping our house in order.

The Building Section have their

*R. McLatchie, Works Garage Foreman, has in his charge 153 Company vehicles—lorries and cars. Here he is (right) at Munnion's coachbuilders seeing a truck body overhaul*



*In the power house overhauling the boiler water feed pumps, Bert Lodge (left) and Reg Richards, chargehand, with H. J. McCarthy. Behind, is the emergency diesel generator*





*Charlie Smith, building maintenance charge-hand, with Reg Soden, who is in charge of building maintenance*



*New machinery arriving at the Works is unloaded and installed by mechanical maintenance teams, and wired by the electricians*

calendar booked up for a long time ahead. They have a section of maintenance carpenters and also control the carpenters on production work, including the skilled pattern makers.

The Maintenance Electricians supply the power to the whole plant, and have lately installed the control room and switchgear in the new College.

The Mechanical Section handles the installation and maintenance of all our machinery and the making of many kinds of fittings.

Our steam and heat and water supply is controlled by the Power House Engineer, as is our trophy-winning fire brigade.

The Company's transport fleet is based on the Plant Engineer's garage. Its foreman is responsible for all the vehicles which link our internal systems, bring in our supplies and take out our finished products.

To add improvement and finish to our equipment is the project of the new Plating Shop and extended Metallurgical Laboratory. Here again our maintenance teams will be co-operating in its building.

The call for more steam has already

been passed to set out on this enterprise. For steam under pressure will pass through all the heating coils of the new plating tanks. But our boilers are already running at full blast. Therefore it will be necessary to generate more steam. To do this a new boiler is being built for us and will be fitted next summer. It will replace two of our present boilers and will produce twice as much steam as their combined output. Then we shall get thirty-one thousand pounds of steam an hour instead of the present twenty-three. Pounds of steam in this case means pounds weight of water converted into steam in an hour.

Work on the alterations to the power house is now going on, and a new six and four inch steam pipe line is being put in from Back Road up to Third Street, down Main Road to Marconi House, and back through the Machine Shops. The estimate reads £21,000 for the new boiler and another £12,000 for the new ring main.

All through our buildings the Plant Engineer's work goes on. By the steady vigilance of his people the wheels of our industry are kept constantly turning.