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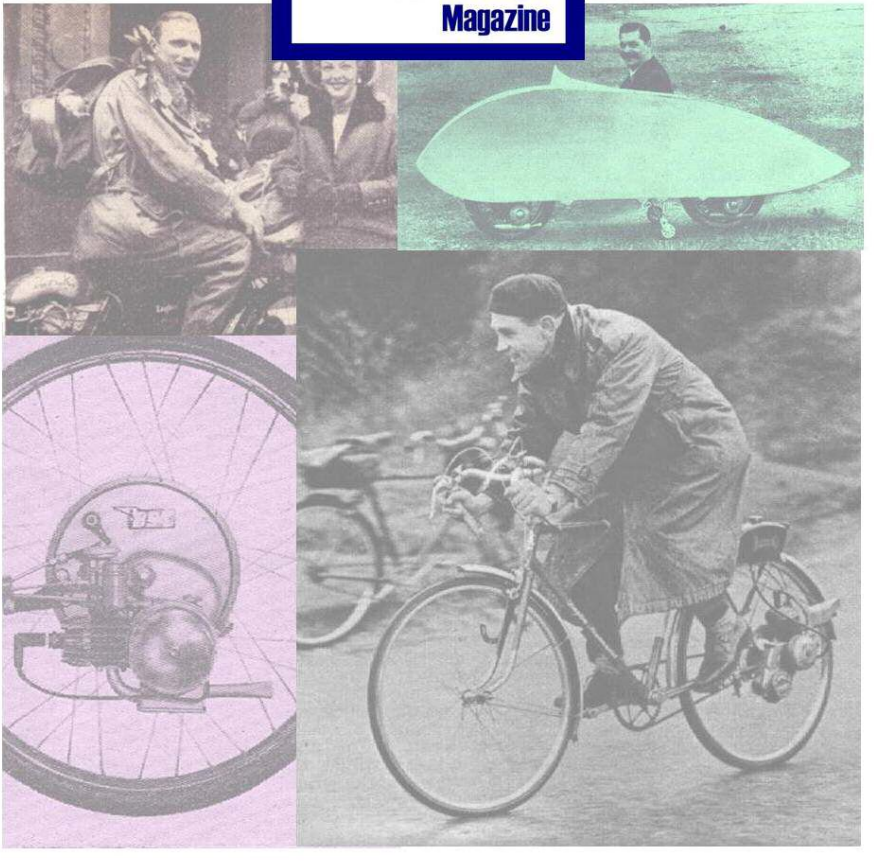

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Re-established Under

COVENTRY-EAGLE'S PRESENT FACTORY REPLACES THREE WORKS

ON the outskirts of Coventry are many new factories; modern buildings erected during the war to deal with the rapid expansion of production of local firms and to replace floor space lost through enemy action.

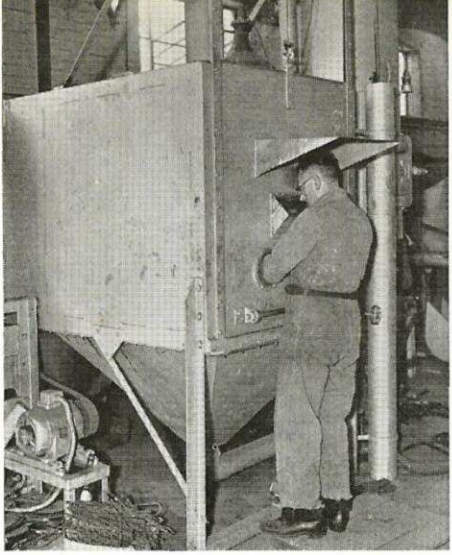
A large number of Coventry factories were destroyed during hostilities and to-day many of these wartime factories house firms whose names are household words in the city; firms who have had to move completely from their former premises and recommence production in new accommodation.

Although these factories are in rural districts, they are not far from the city centre, and with the aid of an efficient municipal transport service are within easy reach of the workers. They offer employment under modern conditions and in excellent surroundings.

In one of these modern buildings, at Tile Hill, Coventry, is housed the Coventry-Eagle Cycle and Motor Co. Ltd., the destinies of which are controlled by A. Douglas Mayo, chairman and managing director. The firm was started in 1890 by his grandfather, and claims to be the largest privately-owned concern in the cycle industry. Mr. Mayo is the third generation of the family to carry on the business, and his son is being given a sound training so that he can eventually continue and maintain the family tradition.

Coventry-Eagle suffered severe damage to their premises during the war, for in 1940 two of their three factories were completely destroyed and in the next year the third one was badly damaged. At this period the firm were making cycles and finishing steel helmets for the Services.

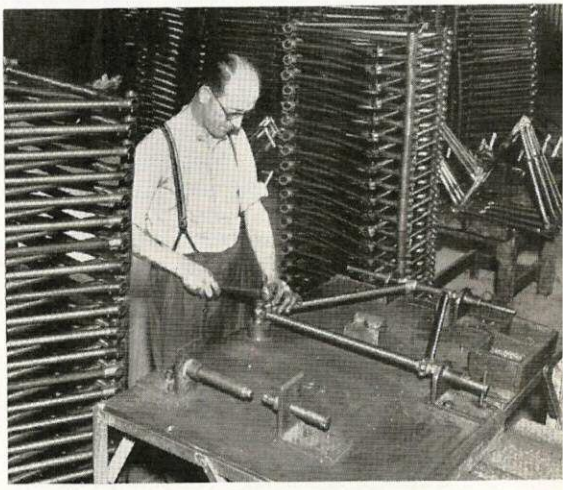
Work had to carry on and the firm moved into dispersal factories. Some idea of the production problems facing the management can be gained from the fact that in order to provide the equivalent



Left : Marshalling area for export cycles

Cycle frames being shot blasted

Below : Trueing frames before brazing



One Roof

DESTROYED BY BOMBING

floor space of the original three factories, the company had to take over no less than 16 dispersal places. So widely spaced was this temporary accommodation that the two factories furthest away from one another were nearly 11 miles apart.

Such was the position at the end of the war when the peace-time production of bicycles had to meet the heavy demands of the world markets. Eventually it was decided to concentrate production in the modern factory which is now occupied by Coventry-Eagle at Tile Hill.

In February, 1946, the firm moved into part of the factory. Machinery had to come out and plant and fittings had to go in. Alterations and decorations had to be undertaken and all the time production had to be, and was, maintained under these abnormal conditions. In the following November the final part of the factory, which is now the frame building shop and represents a considerable portion of the total floor area of nearly 40,000 sq. ft., was handed over to Coventry-Eagle.

Machinery had to be cleared out and the installation of a considerable amount of plant undertaken. When this task was completed early in 1947 production was centred under one roof in buildings equipped with up-to-date plant laid out on modern lines.

Surrounding the factory is a generous area of land for future development and bordering the boundaries are main railway lines and arterial roads to simplify the movement of goods in and out of the factory.

Production in the works is divided into two main parts, frame building being completed in one part of the works and finish and assembly in the other. Such is the layout of the factory that it is easy to follow the production of the machines, operations being in their natural sequence. Except for the moving track of the assembly line, production is carried out on the batch system throughout the works. This scheme has been found satisfactory and economical.

Frame building

Frames start off as tubes cut to length and are issued from stores. The tubes are mitred in presses, the peg holes drilled and the frame pegged and trued on a jig. Each frame is assembled individually by a craftsman, and from the building table the frame goes to the brazing section and the head joints are dip brazed. With the head thus fixed the frame is jigged, the seat and chain stays added and trued up after which they are tack-welded in position. Seat cluster and bottom bracket are dealt with in the dip brazing hearth.

This sequence of building is for the gents' frame, a slight variation being made in the ladies' model. The method ensures accurate alignment of the frame during building, and final trueing is only necessary to correct any distortion caused by the brazing heat. After brazing, frames are passed to a fully automatic de-brassing plant for the removal of surplus brazing material.

Brazing pegs are removed, race seats reamered, and the frame finally set on a jig. Filing, polishing and inspection of the frame follow in that order, and the frame number is stamped on. After rustproofing the frame goes to the enamelling plant. Forks are made in a separate section in the frame shop and are muffle brazed at four different temperatures.

In the enamelling shop frames are dipped by hand and hung on an overhead conveyor rack. Surplus material drains off and the frames are switched to a parallel set of overhead rails and moved into a pre-heat oven. After a certain time the frames enter the final oven, a new batch taking their place for pre-heating.

1

It will be realized that any frames already in the final oven are removed during the cycle of operations. These latter frames, still on the conveyor, cool off, are dipped for final coat, switched to the first conveyor rail, pass through a pre-heat and final oven, eventually emerging close to the first dip station. When the frames are removed the particular conveyor trolley commences a new journey with another batch of frames. Each station of the plant is occupied all the time.

As the door to the pre-heat oven is

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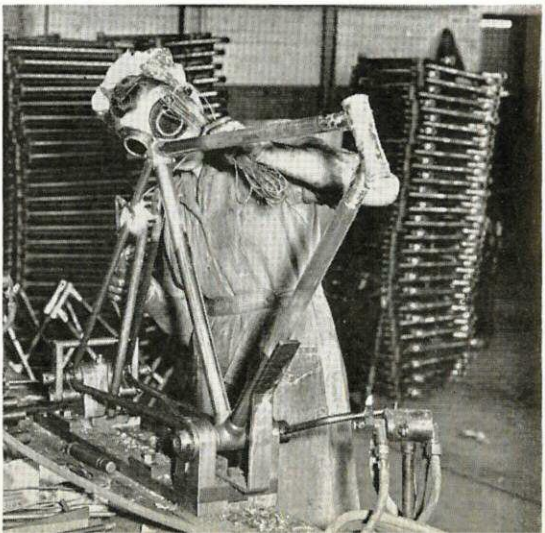

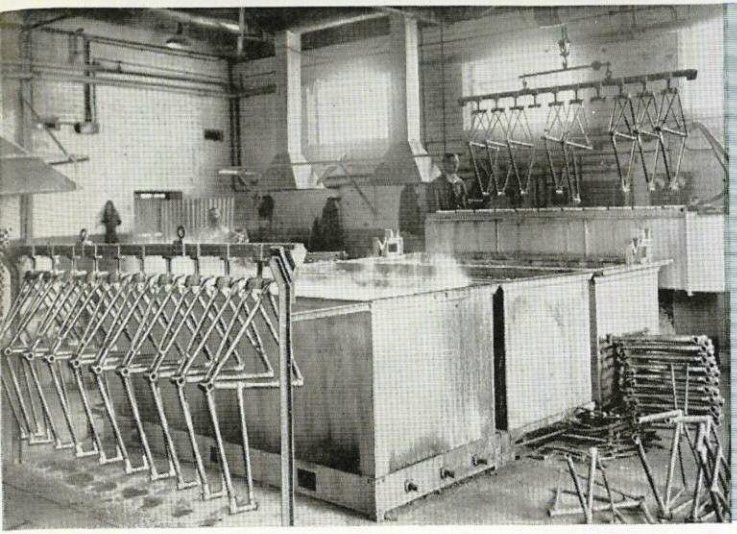

1—Bottom bracket being treated in the dip brazing hearth

2—Fully - automatic plant for debrassing after brazing

3—Seat and chain stays being tack welded to partly-brazed frame

4—Final trueing of completed frame by skilled workman

2

opened, so is the one to the final oven closed, and temperature is thus preserved as much as possible.

Coloured frames all receive the undercoat and then pass to the spray booths for finishing.

Final assembly

After lining and the addition of name plates the frames are ready for final assembly. Component parts are fed to the assembly track from benches on either side. The track itself runs down one side of the shop, parallel to the wall which divides the shop from the main stores. Issue of material is facilitated as the stores are located close to the line and sub-assembly points.

Wheel building is carried out near the commencement of the line. After lacing, the spokes are tensioned by a pneumatic screwdriver with an automatic release at a predetermined load. Wheel trueing is completed on machines giving a dial reading for accuracy.

Bottom bracket threads are cleaned out, the crank spindle and bearings built in and cranks and chain wheels added at track side stations. Forks and bars are fitted and the frame then joins the assembly line. An interesting point is the fact that brakes are fitted and adjusted on the track. This is found to prevent a bottle neck.

At the end of the line the machines are inspected and wrapped and pass to a stillage store near the centre of the shop.

With the accent on export, a high proportion of output goes overseas, mostly in C.K.D. form or K.D. with wheels built. A small proportion goes assembled complete.

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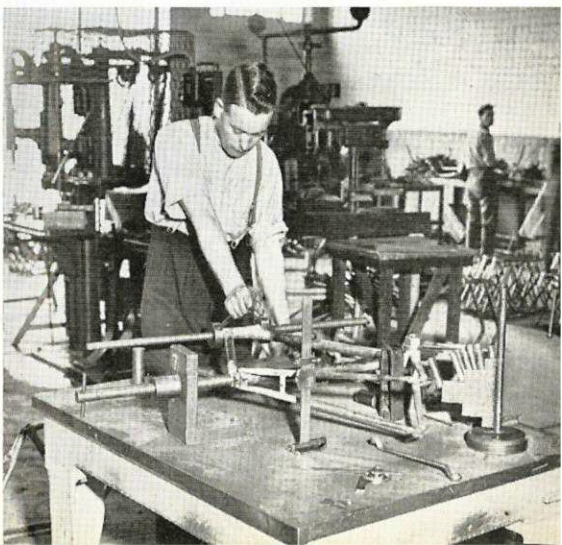
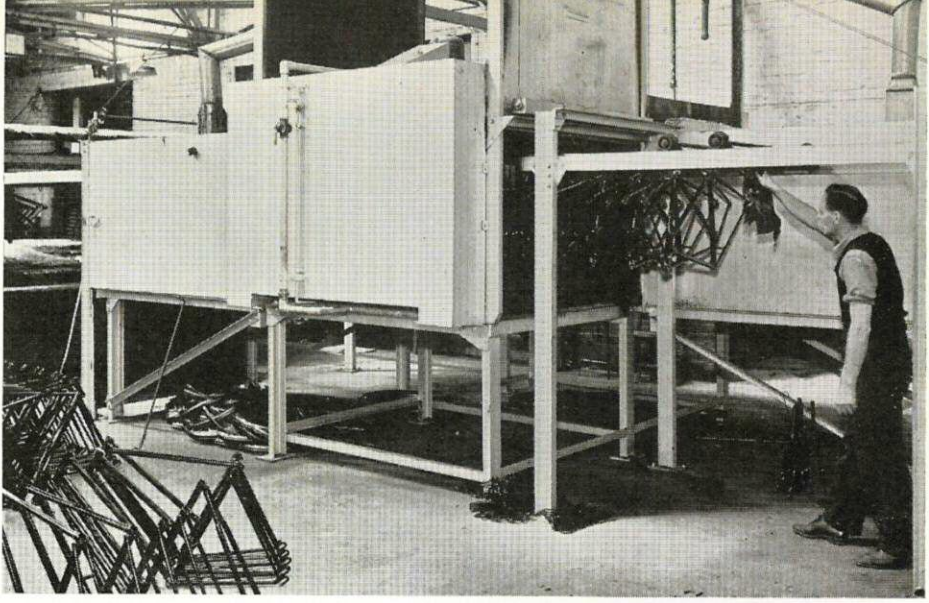


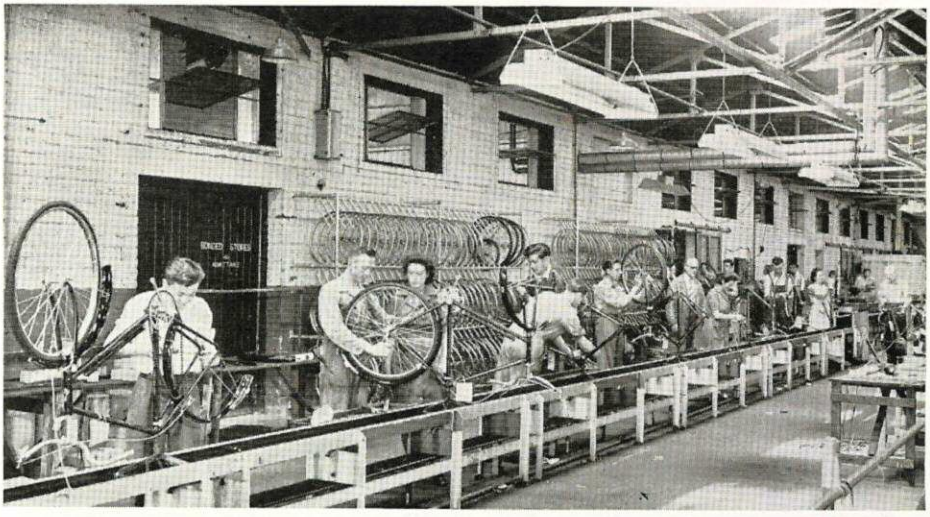


Cycle frames, dipped by hand, being fed into the pre-heat oven on overhead conveyors

In view of the volume of business for overseas markets the centre of the shop is given over to the marshalling of parts as necessary for the particular market.

Parts are assembled in batches of 25 ready for crating for shipment. Road transport can pull in direct to the marshalling area for loading with machines ready to go to the export packers.

Throughout the day production continues steadily and in orderly fashion. There is an over-riding atmosphere of organized speed which can only come from intelligent planning efficiently controlled, and a walk round these works will give the proof that these conditions obtain at Coventry-Eagle in no small measure.



Coventry-Eagle cycles nearing completion. A view of the final assembly track