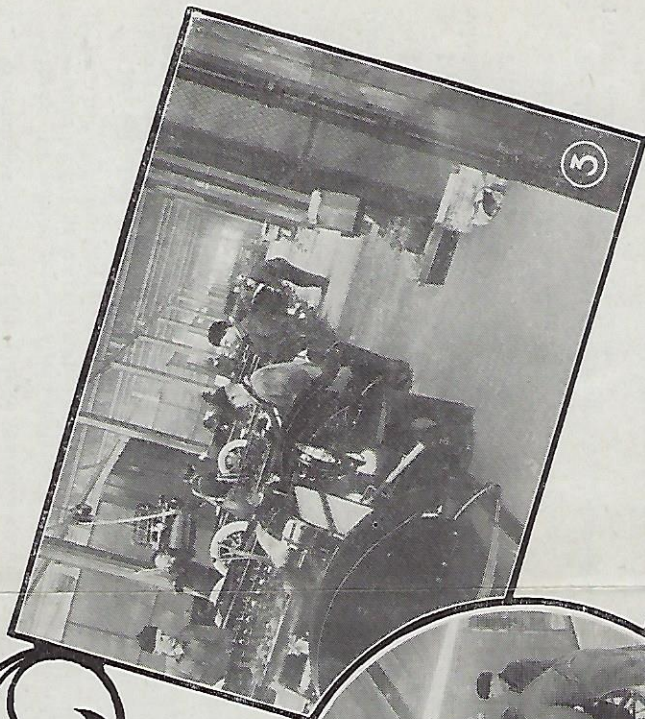
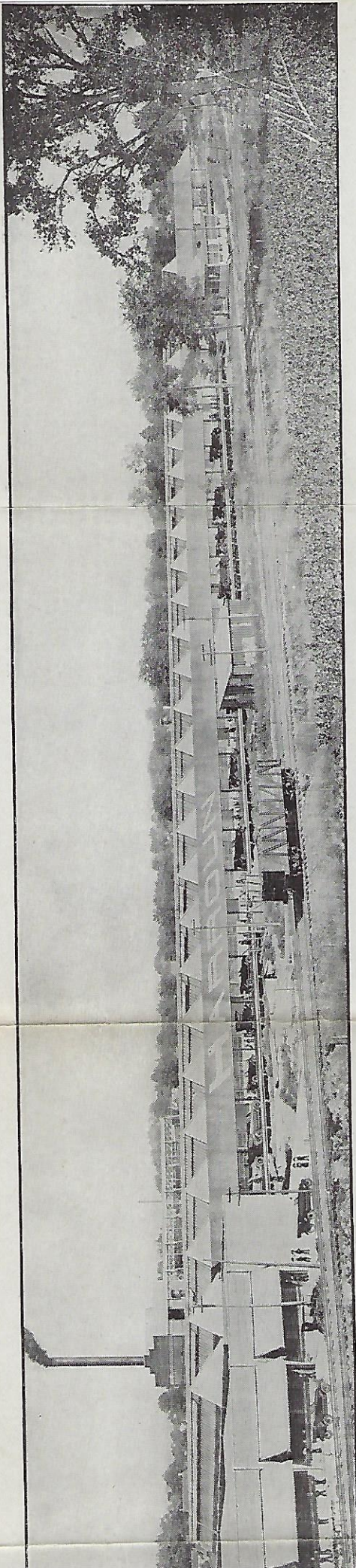
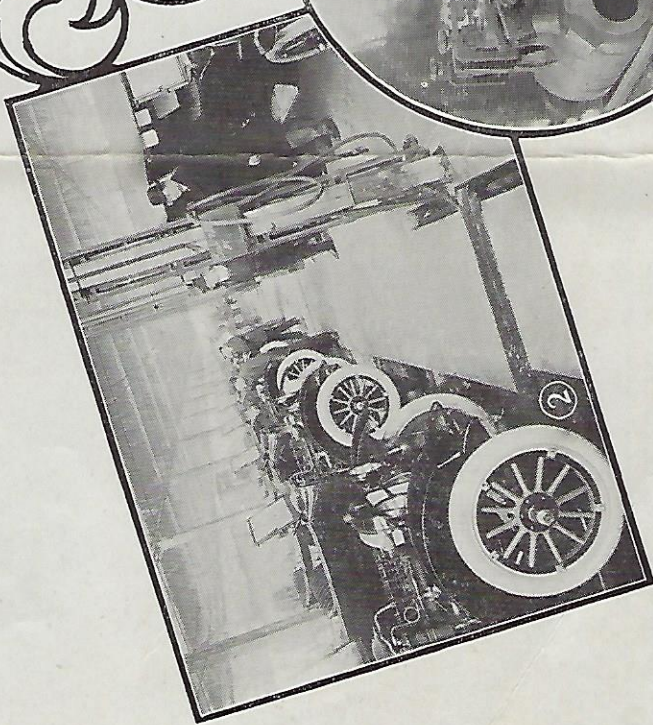
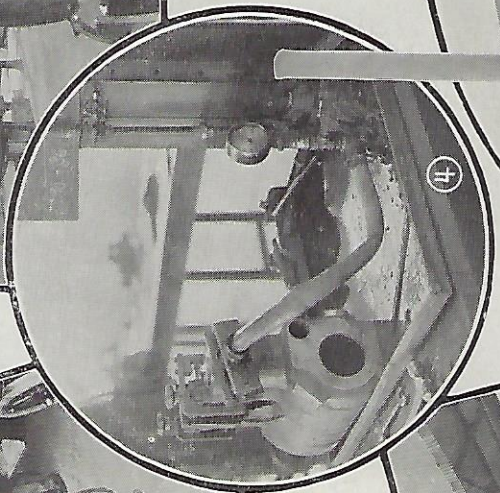
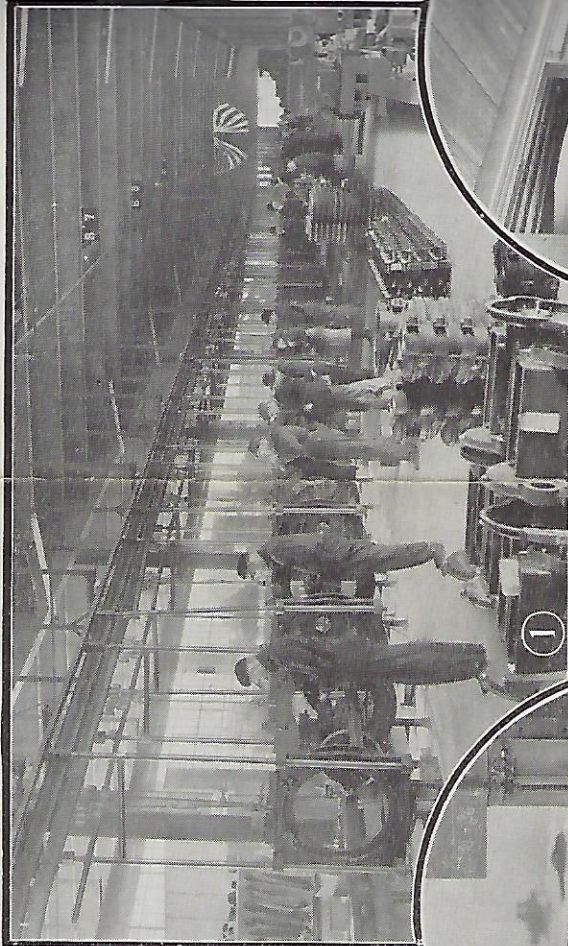
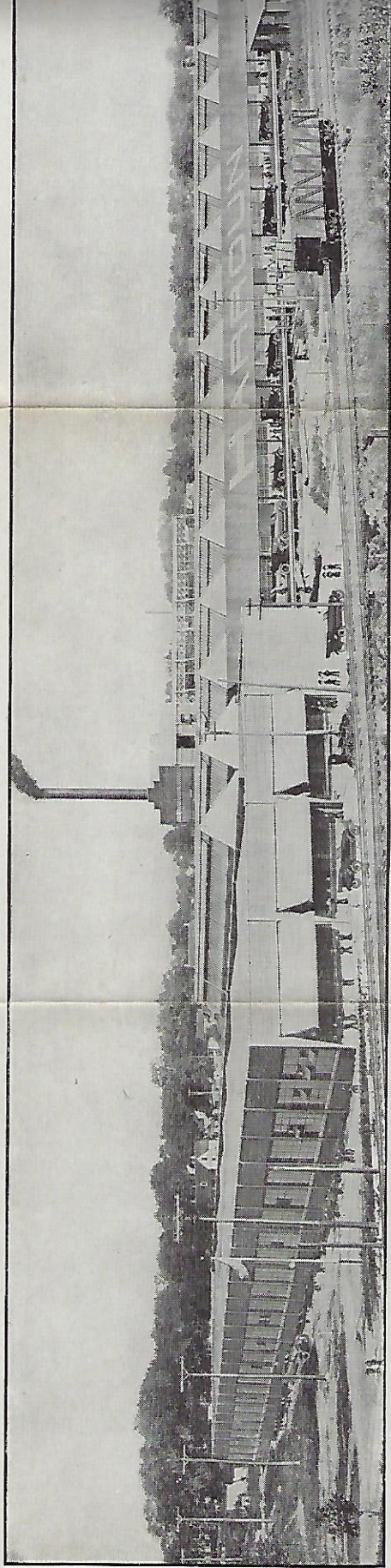
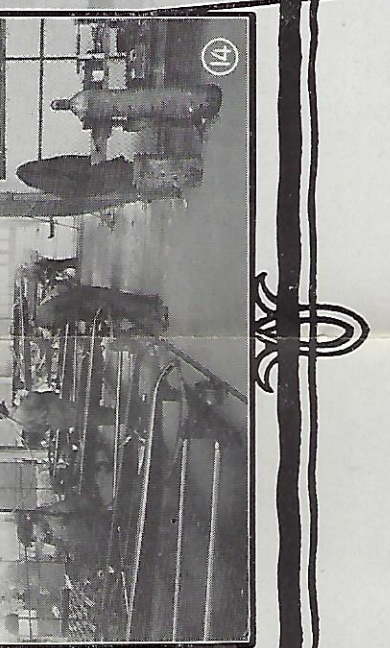
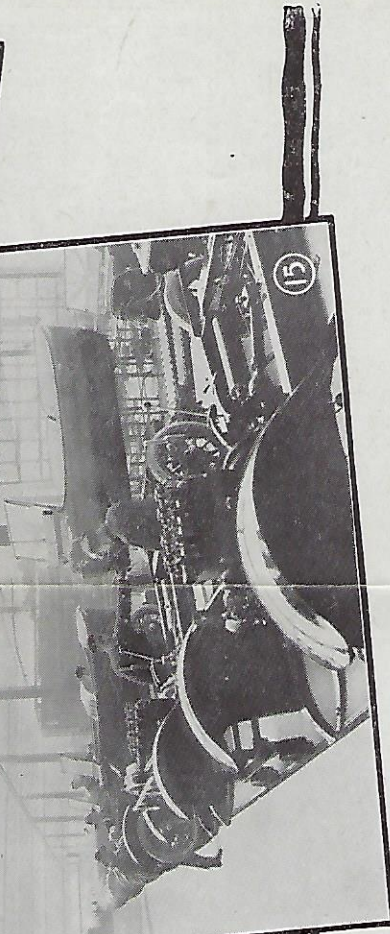
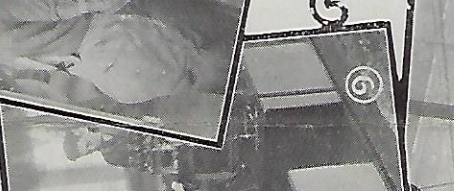
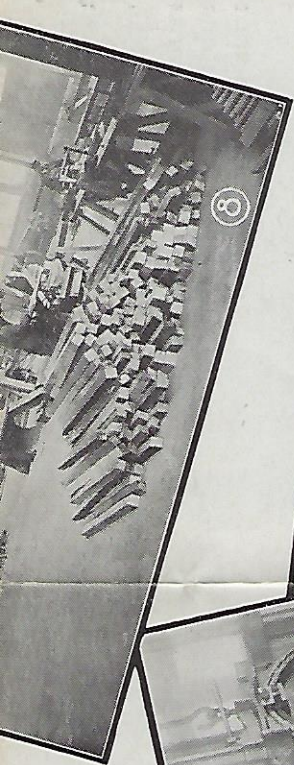










- 10.—Here is a skilled workman adding the oil pipes to the Harroun motor as it passes him on its way along the over-head railway. The cradle in which each motor rides is one of the most highly specialized tools in the automobile industry. It will hold the motor in any desired position, as you will note in Photograph No. 11.
- 11.—Reversing the cradle in which a motor is being assembled, to permit work on the bottom half. This is the same cradle shown in Photograph No. 10.
- 12.—Cylinder boring machines at work in the Harroun Motors Corporation machine shop. These machines are practically automatic and give the inside of each cylinder a mirror-like finish, smoothing all four of the cylinders at one operation.
- 13.—A view of a section of the assembly track, showing the point at which the tested motor is lowered into the traveling Harroun chassis.
- 14.—South end of the progressive assembly track. The pneumatic hoist in the center of the picture is raising the frame which has been up-side-down for the installation of springs, and is turning it over in preparation for the remaining steps of assembly.
- 15.—These workmen are lowering a body to the place it is to occupy in a Harroun Chassis. In the background is the conveyor which brings the bodies in a steady stream to the point on the assembly track where they are installed.

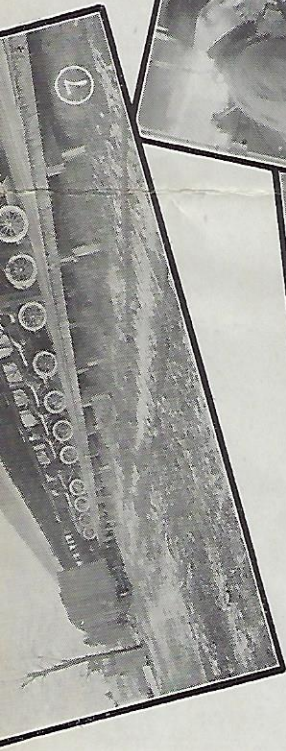
- 6.—Power house and heating plant of the Harroun Motors Corporation, which caused the shut-down of many Detroit factories, the Harroun plants were in continuous operation except on fuel holidays, their favorable location enabling them to get coal without passing it through the Detroit pool.
- 7.—Harroun shipping platform, showing completed cars in process of loading.
- 8.—Woodworking shop of the Harroun Motors Corporation where workmen prepare the lumber used for crating Harroun cars for export and for double-decking them in freight car shipments. This department also contains some very versatile machinery for working on the pressed steel from which bodies, fenders and radiator shells are built.
- 9.—After its assembly, each Harroun motor is taken to the block test department, where it is first operated by electric power until oil is worked thoroughly through the bearings. The motor is then given its first gasoline connection and runs under its own power while the block very cleverly puts electricity back into the machine for the test of the next motor.

Harroun Motors Corporation, which one workman after which he has learned so well, is the next workman, over-head railway, complete motor cars on the 700-foot in a bare frame and emerge in the immediate foreground the automatic elevator and as it can be supplied with track where parts become into the frame. In the Chassis are sprayed with They emerge for their assembly.

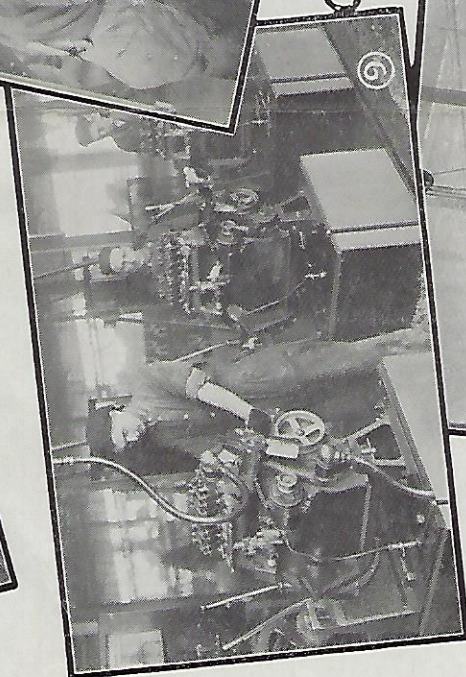
Each set of cylinders of 60 pounds to the square block.

obles at the big platform all Detroit factories have

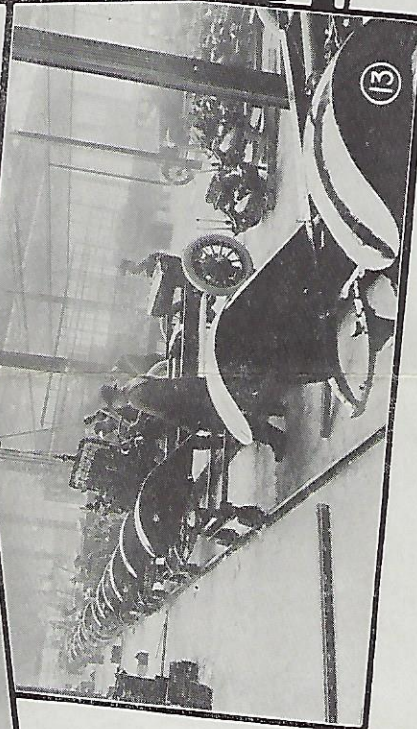




1.—The progressive motor assembly of the Harroun Motors Corporation. See the cradles, each with its motor to which one workman after another adds the part or set of parts which he has learned so well how to handle. He then passes the cradle to the next workman. The motor arrives at the end of the overhead railway, complete and ready for test.



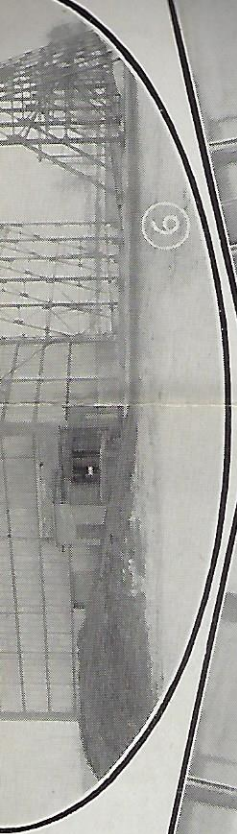
2.—Putting the finishing touches to Harroun motor cars on the 700-foot Assembly Track on which they start with a bare frame and emerge complete and ready for road. The car in the immediate foreground is being raised off its truck by the automatic elevator and will be in the hands of a tester as soon as it can be supplied with gasoline, oil and water.



3.—Another view of the Harroun assembly track where parts become motor cars. See the motor being lowered into the frame. In the remote background is the drying oven. Chassis are sprayed with paint and varnish before they enter it. They emerge for their continued trip dry and ready for further assembly.

4.—Applying pressure test to a Harroun Motor. Each set of cylinders must resist without leakage a pressure of 60 pounds to the square inch. This test insures a perfect cylinder block.

5.—Loading a freight car with Harroun automobiles at the big platform which adjoins the main plants. Though all Detroit factories have



had to limit their production on account of the scarcity of freight cars this year, the Harroun plants have always been well supplied, due to their location on two railroads and at the gateway to the main Detroit yards.



6.—Power house and heating plant of the Harroun Motors Corporation, which caused the shut-down of many Detroit factories, the Harroun plants were in continuous operation except on fuel holidays, their favorable location enabling them to get coal without passing it through the Detroit pool.



7.—Harroun shipping platform, showing completed cars in process of loading.



8.—Woodworking shop of the Harroun Motors Corporation where workmen prepare the lumber used for crating Harroun cars for export and for double-decking them in freight car shipments. This department also contains some very versatile machinery for working on the pressed steel from which bodies, fenders and radiator shells are built.

9.—After its assembly, each Harroun motor is taken to the block test department, where it is first operated by electric power until oil is worked thoroughly through the bearings. The motor is then given its first gasoline connection and runs under its own power while the block very cleverly puts electricity back into the machine for the test of the next motor.