

a less complicated proposition, a great deal of their manufacture being in the pressing and machining processes. Others, like the large-flange Resilion Continental, with the barrel as one piece, the flanges separate. There are, in fact, five different Resilion hubs, one front and four rear. One is screwed for a derailleur 3-speed with $\frac{1}{2}$ in. chain, but it is suitable, too, for a 4-speed with $\frac{3}{4}$ in. chain; another screwed for a derailleur 4-speed with $\frac{1}{2}$ in. chain is also suitable for a 5-speed with a $\frac{3}{4}$ in. chain; one will take a cog and lock ring on both sides; another is single sided. The front hub is normally 32-holed, the rear ones 40-holed, but both front and rear—to complicate proceedings—can be supplied with 36-holed flanges.

Magic

Spokes appear like magic from a machine which swallows a ceaseless strand of wire, its operation starting with a rough cut, then an exact one, a bent end which is pressed into a spoke head, then the other end is threaded before it emerges. The spokes are usually of 14 or 15 gauge, for 14in. to 28in. wheels, for Westwood or Endrick rims. Nipples and washers for these, plated, are produced on other machines.

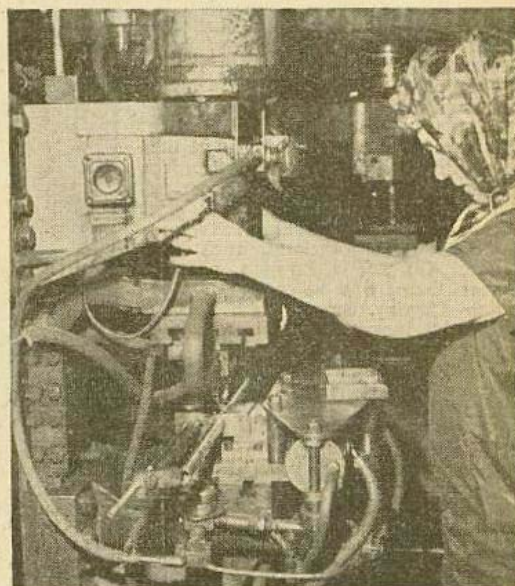
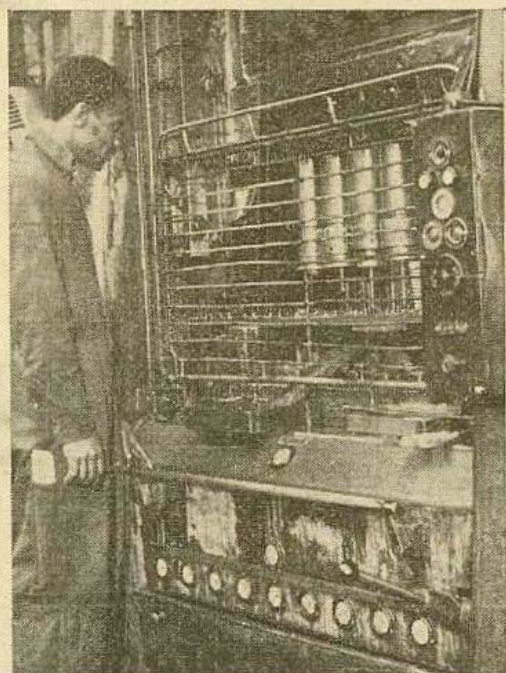
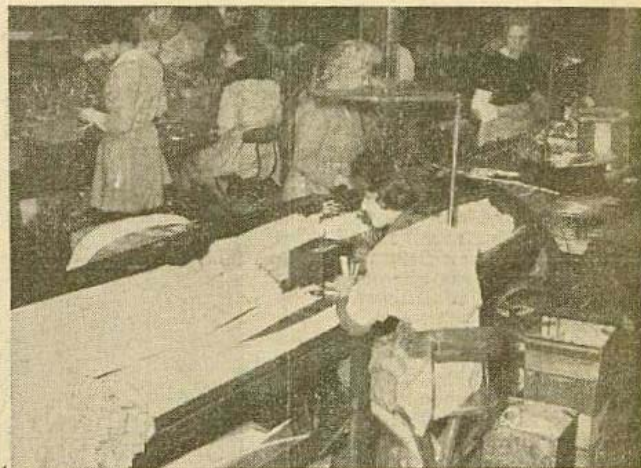
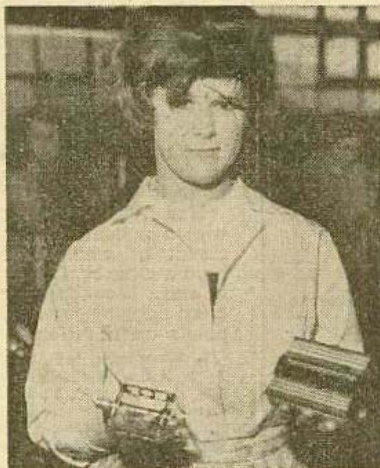
Over a dozen bottom bracket axles are made at the Credenda Works, overall length varying from 4 $\frac{1}{2}$ in. to 5 $\frac{1}{2}$ in. Some allow for gear case clearance, others don't, but all take $\frac{1}{8}$ in. balls. Bracket cups are standard, with the left-hand thread one flanged, the right-hand thread one plain to take the lock ring.

For over 60 years the factory has been the largest manufacturer of cycle pedals in the world. Sixteen rubber-treaded models besides three heavy duty types, four metal-framed rubber-treaded ones and four all-metal ones are produced. Every type, in fact, except the platform racing variety. Ten differing rubber patterns for the all-rubber types, are made in widths of 3in., 3 $\frac{1}{2}$ in., 4in., 4 $\frac{1}{2}$ in. and 4 $\frac{3}{4}$ in. But whether heavy duty rubber or all-metal single-sided Resilion lightweight, all have adjustable bearings and $\frac{1}{2}$ in. balls. The night rider is specially catered for by four models fitted with reflectors.

A selection of flat tools is also produced, these including the combined spanner (with screwdriver), cone spanner-cum-tyre lever, combined spanner for head and bracket, and the "8-in-one." The first three, and a polished metal oilcan, are obtainable in a waterproof tool roll.

H.K.

Below left, a contrast in pedals—the lightweight Credalux quill type and a heavy carrier model; right, a section of the cable brake assembly room.



Above, the centre lug being welded on the handlebar. Left, a machine which presses, cuts and drills hub caps.

SPRING AND SUMMER CLOTHING

A special market survey of apparel for cyclists and moped riders will appear next week.

ALSO: Tony Hewson's Tips on Living Abroad to race.
Bill Oakley In The Wilderness.