In March, Plant and Tool Engineering were combined into one General Engineering Department, and with the completion of the new quarters in July the two groups were combined in fact. This consolidation resulted in some increased efficiency, permitting the force to be reduced from 14 to 12.

Several engineering developments resulted in improved product, reduced cost, or a saving in labor.

1. A new type stripper press was developed to increase production and to reduce labor and operating costs. We are planning to install these presses at all block-preform-press stations, which will increase our total preforming output from 264 to 400 per hour.

2. We have been successful in replacing the old style, self-contained, high speed, hydraulic preform press with an inexpensive platen press. This was accomplished by installing special controls and by drawing power from the existing hydraulic system used on the block and A-B-K curing presses. Units have been installed at Detroit and Winchester with a third press on the way to Lindsay. An estimated saving of $4,000 per unit resulted.

3. A refrigerated-air cooling system was engineered into the coolers in the Compounding Department, replacing the old water jacket cooling churns. This reduced the cooling time from 16 minutes to 4 minutes per batch.

4. An improved method of controlling the length of material rolled on the automatic rolling machines permits 15 foot rolls to be cut to accuracies of a fraction of an inch. This reduces the scrap when the roll is subsequently cut into pieces.

5. A return conveyor system developed late in 1948 is now being installed on an automatic chamfer grinding machine. The successful use of this conveyor will reduce the number of men per machine from 2 to 1 or a total of 4 men for the 4 machines at Detroit. Winchester will likewise benefit, having one such machine.

6. A successful automatic cycle control was developed for the block curing presses at Winchester eliminating the need for press attendants for the 3-1/2 to 4-1/2 hours curing and cooling cycles after the press is loaded. The Winchester installation has set the pattern for similar equipment for all Detroit presses with the added feature that blow-down, steam and water will also be automatically controlled. The installation at Detroit will eliminate 2 men per shift or a total of 6 men with present operating schedules in the Pressing Department.

7. To date we have been unable to procure satisfactory hydraulic pressure regulating valves for our curing presses. In spite of their high cost, their performance is poor. Recent experiments utilizing some of the special control devices on the new preform press (item 2) appear to have the matter solved, eliminating the hydraulic regulating valve completely.

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