

Is This Now a Myth?
The Production of Japy in 1780

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In David Christianson's article "Watch Repair in America - Part 1" (The Watch & Clock Bulletin, No 385, April 2010) an incorrect statement is made. This is at least the third time this error has been committed and there is a danger that the statement is becoming a myth.

In footnote 11, Christianson states: "Cutmore tells us that in 1780 Japy produced 43,000 watches using 50 production workers. This would break down to 16 watches per man-week compared to 1 or 2 watches per man-week by traditional methods at the time."

Assuming a 6-day, 10-hour per day week of 60 hours, this means each watch took just 3.75 hours to make. But this is impossible. For comparison, Moore "Timing a Century" notes that in 1937, Waltham watches took about 1 man-day to make, more than two and a half times slower than Japy in 1780! To suggest he made watches faster than the highly automated, streamlined factory of 1937 is not sensible. Indeed, rates of just a few hours have only been achieved by using fully automated, computer controlled, robotic assembly lines.

This myth, which has also been repeated by Michael Harrold ("Fulfillment of American Industrial Watch Manufacture, NAWCC Bulletin, No 322, October 1999) originates from an error made by Cutmore in his book *Watches 1850-1980*. Cutmore's statement, cited by Harrold and Christianson, is derived from Landes (*Revolution in Time*, 1st edition page 262, 2nd edition page 280) who actually wrote:

"By 1780, we are told, Japy was employing and housing some fifty 'apprentices', *plus numbers of journeymen*, and turning out 43,200 pieces" (my emphasis). Unfortunately Cutmore left out the journeymen!

Japy was making ebauches (incomplete, rough movements) which would take much less time than a finished watch. He was also using machinery which was, at best, very crude (see *Japy Patent for Five Years, for Various Horological Machines* and Richard Watkins, *Watchmaking and the American System of Manufacturing*, both available from www.watkinsr.id.au). But if we assume a more realistic 5 man-days or 50 hours per movement, Japy must have actually had about 700 workers. (I am assuming 310 working days per year and so each worker produced 62 movements per year).

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