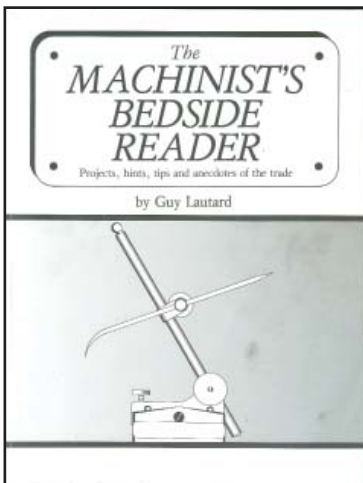


Guy Lautard. *The Machinist's Bedside Reader: Projects, hints, tips and anecdotes of the trade.* 3-volume set.

"...working drawings and ideas for tools for the machinist's toolbox, toys for himself and/or grandchildren, plus other useful information, hints, tips and general dispensations of working wisdom, plus a sprinkling of machine shop anecdotes and other stuff you'll like." Guy Lautard

Ron Peterson, shop teacher at Yoncalla High recommended this series of three books to me last year. I went to Guys website ([www.lautard.com](http://www.lautard.com)) and bought all three. What a bonanza of information!



I guarentee if you own a lathe or a mill, you will find these books worth the money. Take the tool on the cover of Volume One to the right. Everyone knows it's a surface gauge. They all have a ball at the top. Know that it's for? Ha. Neither did I until I read read Guy Lautards book!

Right off Guy tells us that he is not a professional machinists. This, in a weird way, can be a benifit. Dedicated amateurs have the time and curisity to spend years reading textbooks, talking to professinals and pracitcing every night in their shop. These are the kind of guys who take their lathe aprt to see how it works. Dedicated amateurs don't know it all and can't do it as fast as the professional, but they come up with some creatrive projects and observations.

What's in it for you? Groove cutters, split cotters and fingerplates. Slitting saws, straight knurlers and spring making. Tool stands, faceplates and lathe cleaning tips. Get all three books and you will have a winters worth of bedside reading and three summers worth of projects.

Some of the "artricles" are short, less than a page. Many of the ideas come from machine shop friends of his, or readers of his books that have written in with comments and suggestions. The writing tells you how to do things in a comfortable, conversatinal, easy to read style. Since the first volume was writtne in 1986, these books have been enjoyed by thoudands of readers in 25 countries. Check Guy Lautard out at [www.lautard.com](http://www.lautard.com).

## Pioneers of Technology

Frederick Winslow Taylor  
(1856-1915)

Google Taylor and you will quickly find him credited as the father of scientific managment, where he studied the workplace with the goal of making it more efficient. He was successful, although history has been brutal to him on that account for the dehumanizing effect it had on workers. Set all that aside.

Frederick Taylor earns "Pioneer of Technology" for his lesser known fatherhood, that of high speed steel (HSS). It allowed cutting speeds and feeds on machine tools to be increased so greatly that it is hard for us today to imagine the impact. Unbelievable is a good word, because that it just what it was. People had to see it to believe it (just like nobody would believe Nicolas Tesla had actually made a electric motor to run without brushes until they saw it). I know the feeling because welding pop cans with TIG? Then I saw Lincoln Welding School teacher Karl Hoes do it. But back to Taylor and HSS.

To make people believe that HSS would cut 2 to 3 times faster than tool steel, Taylor set up a booth at the 1900 Paris Exposition. Shown in the photo to the right, he peeled cherry red chips off his lathe and draped the curlicued ribbons between the posts of the booth.



High speed steel today is defined primarily as the composition of the alloy (tungsten, chromium, molybdenun, cobalt) but those alloys were known before Taylor. What made the breakthrough was in the heat treatment process. He and co-father Maunsel White spent a year performing 16,000 individual experiments, turning 200 tons of steel to chips in the process. It changed the entire machining world, for to make use of this increased cutting abilty required new machines with more hoerspower and much sturdier construction. It blew the doors open for mass production.

In todays world of high production carbide tooling with it's quick change inserts has replaced HSS. However, nothing beats the versitility of grind-your-own HSS lathe bits. I gaurentee if you look in any machinists tool box anywhere, you will find a few of these cutters. Thanks to Frederick Taylor.

## Quarter Inch Drive

A quarterly newsletter for friends and graduates of Tom Hull's shop programs

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Plastic has replaced glass as the beach trash of the 21st century and to raise public awarness Bandon artist Angela Pozzi is creating a series of sea creatures skinned with these plastic pilgrims. Pirate Shop students fabricated the steel frameworks for the projects such as the 12-foot fish above. Vinnie Fowler's excellent cross sectional drawings were a spark-eaters dream.

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