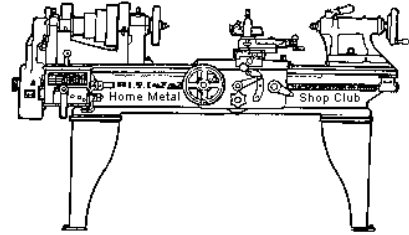




December 2015
Newsletter

Volume 20 - Number 12



<http://www.homemetalshopclub.org/>

The Home Metal Shop Club has brought together metal workers from all over the Southeast Texas area since its founding by John Korman in 1996.

Our members' interests include Model Engineering, Casting, Blacksmithing, Gunsmithing, Sheet Metal Fabrication, Robotics, CNC, Welding, Metal Art, and others. Members enjoy getting together and talking about their craft and shops. Shops range from full machine shops to those limited to a bench vise and hacksaw.

If you like to make things, run metal working machines, or just talk about tools, this is your place. Meetings generally consist of **general announcements**, an **extended presentation** with Q&A, a **safety moment**, **show and tell** where attendees share their work and experiences, and **problems and solutions** where attendees can get answers to their questions or describe how they approached a problem. The meeting ends with **free discussion** and a **novice group** activity, where metal working techniques are demonstrated on a small lathe, grinders, and other metal shop equipment.

President <i>Vance Burns</i>	Vice President <i>Norm Berls</i>	Secretary <i>Joe Sybille</i>	Treasurer <i>Emmett Carstens</i>	Librarian <i>Ray Thompson</i>
Webmaster/Editor <i>Dick Kostelnicek</i>	Photographer <i>Jan Rowland</i>	CNC SIG <i>Martin Kennedy</i>	Casting SIG <i>Tom Moore</i>	Novice SIG <i>Unfilled</i>

This newsletter is available as an electronic subscription from our [website](#). We currently have 947 subscribers located all over the world.

About the Upcoming 9 January 2016 Meeting

The next general meeting will be held on 9 January at 12:00 PM (Noon) in the meeting rooms of the Parker Williams County Library, 10851 Scarsdale Boulevard, Houston, TX 77089. Martin Kennedy will give a presentation on building your own CNC (*computer numerical control*) lathe, mill, or router.

Visit our [website](#) for up-to-the-minute details, date, location [maps](#), and presentation topic for the next meeting.

General Announcements

[Videos of recent meetings](#) can be viewed on the HMSC website.

The HMSC has a large library of metal shop related books and videos available for members to check out at each meeting. These books can be quite costly and are not usually available at local public libraries. Access to the library is one of the many benefits of club membership. The club has funds to purchase new books for the library. If you have suggestions, contact the [Librarian Ray Thompson](#).

We need more articles for the monthly newsletter! If you would like to write an article, or would like to discuss writing an article, please contact the [Webmaster Dick Kostelnicek](#). Think about your last project. Was it a success, with perhaps a few 'uh ohs' along the way? If so, others would like to read about it. And, as a reward for providing an article, you'll receive a free year's membership the next renewal cycle!

Ideas for programs at our monthly meeting are always welcomed. If you have an idea for a meeting topic, or if you know someone that could make a presentation, please contact [Vice President Norm Berls](#).

A big thank you is due to club member Richard Pichler for his \$35.00 donation to the club treasury. The donation represents the proceeds of the sale of an item acquired from a garage sale. We thank you Richard.

Before the meeting, club member Gene Rowan treated those attending the meeting to a buffet lunch of boiled shrimp, BBQ ribs, sausage, corn on the cob, fried chicken, meat balls, and assorted condiments. Lunch does not get any better than this. Gene, we thank you for your generosity.

About the December 2015 Swap Meet

By Joe Sybille

Another successful swap meet took place on 5 December 2015, from 9:00 AM to noon, at 3119 Jensen Drive, Houston, Texas. Although the morning temperature was a bit chilly in the mid 40's at the beginning of the swap meet, it gradually warmed to the low 60's by noon. Nevertheless, deals were made, and tools and technical books found new homes.

Recap of the 12 December 2015 General Meeting

By Joe Sybille, with photos by Jan Rowland

Thirty-two members including one returning member, Bill Peck, and five new members, Michael Wilkins, Oliver Bellwood, Joe Miller, Marty Kaminsky, and Tony Ciabattoni attended the noon meeting at



Rollformers of Texas Sales., 1005 Broadway at 11th Street, San Leon, TX 77539. Welcome back Bill and welcome to the club Michael, Oliver, Joe, Marty, and Tony. One visitor attended the meeting, Chris Dempsey. There are 36 members in good standing with the club.

President *Vance Burns* led the meeting.

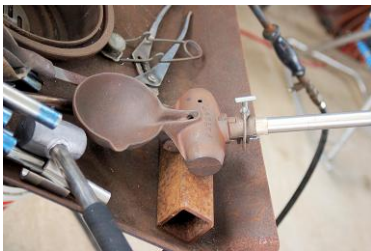


Presentation



There was no formal presentation today. Instead, there were several hands-on demonstrations of skills that are useful in the home metal shop. Before the demonstrations got underway, host of the meeting and owner of Rollformers of Texas Sales, Gene Rowan, welcomed those present. Gene talked about the benefits derived from his association with the club and what they have meant to him and his business. Rollformers of Texas Sales is the only one of its kind in Texas. Among the products this company makes are machines to make air conditioning duct, assorted sheet metal shapes, metal wall studs, and vessel scrubbers. Gene gave a tour of his shop to those in attendance and had his workers demonstrate different production techniques.

Club member *Dick Kostelnicek* demonstrated the skill of making lead hammers. Attendees saw a typical work station whereby one could safely heat and melt lead, and then pour the molten metal into a mold with a suitable handle inserted into the mold. After a few minutes of cooling, a hammer is made. (See photos below.)



Club member *Richard Pilcher* demonstrated the skill of sharpening drill bits on a grinder. Economically, it is not worth sharpening drill bits less than ½ inch diameter, for the bits are relatively inexpensive. Drill bits ½ inch in diameter and larger are expensive and that makes learning the sharpening skills worthwhile. Richard showed the

proper angle at which the drill bit must be held to grind the bit face. (See photo at right.)



Safety Moment

Working in a metal working shop is inherently dangerous. Many opportunities exist to injure oneself; however, metal working shops are not the only places where opportunities exist to injure oneself. Take for instance a winch on a sailboat. *Gene Rowan* spoke of how he witnessed a person lose parts of three fingers while operating an electric winch on a sailboat. The person was inattentive and his hand got caught in the line taken up by the winch drum.

Show and Tell



Warren Gloss described how he made a boom extension for a crane that is used to service his boat. (Photo at left.)

Dick Kostelnicek showed both a tool post grinder and a mini drill press used for drilling holes in printed circuit boards. Both items were powered by motors repurposed from broken paper shredders. (Photo at right.)



Problems and Solutions - *Ask the Blacksmith*

A member wanted to know what happened to make the spout of a teakettle fall off while heating water. Possible scenarios included heating the kettle without it containing water and a cyclic fatigue breakdown of the silver solder attaching the spout to the kettle. The teakettle was in use nearly every day for fifteen years.

Articles

Taps, Taps Everywhere! (Organizing Your Taps and Dies)

By Martin Kennedy

Over the years, I've acquired a lot of taps and dies. I had been storing them in the box from a tap set. It was getting hard to close the box, and it was getting hard to find a particular tap or die. Then I got about 40 more taps. Time to do something!

Here's what I came up with. I used my mill to make two trays out of wood. One tray has larger pockets for larger taps. I used a ball mill to cut the outline of each pocket so that there would not be a square corner that would make the taps difficult to remove.

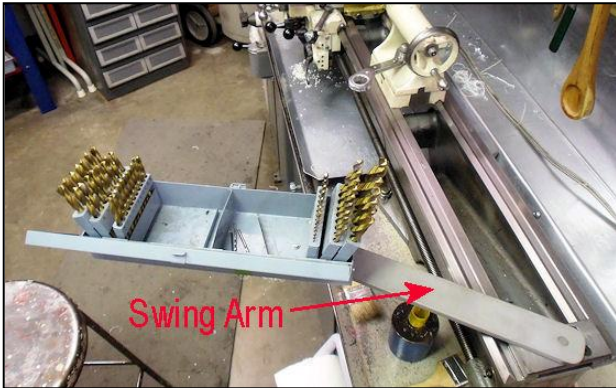
I made some small round buttons out of Delron that are engraved with the tap sizes. I cut countersinks next to each tray compartment for the buttons, with a smaller hole all the way through so that I could remove them by pushing them back out with a small drill bit or wire.

Now my tap drawer is organized! I can easily see if I'm running low on a particular size. I didn't put all the taps in the trays. Some of the less frequently used taps are organized in plastic bags. Clockwise around the edge are taps larger than 1/2", dies larger than 1/2", pipe taps and dies, left-handed taps, odd size taps and odd size dies.

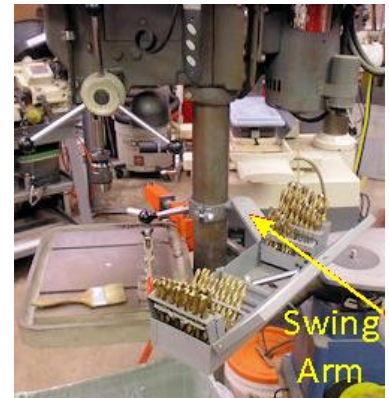


Swing Out Drill Case

By Dick Kostelnicek

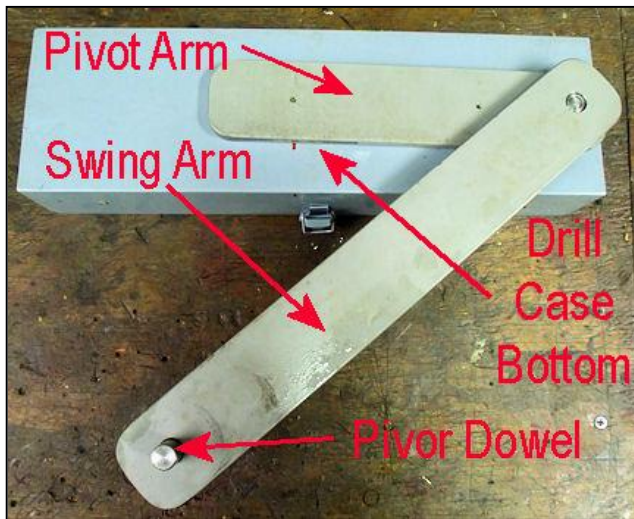


At the lathe or drill press, I use a variety of jobber sized drills. I had to walk over to my work bench, where I stored the drills, in order to get a particular drill from its case. After use, I often laid it down somewhere (not remembered later) rather than putting it

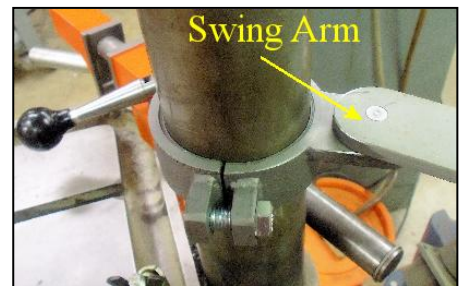


back in its proper spot in the drill case. Well there is nothing new here except that I vowed to change my sloppy ways by employing a swing out drill case.

I fashioned a swing out case for both my lathe and drill press (above photos). The cases are those that hold 115 piece drill sets having fractional, number, and letter size drills. I bolted a pivot arm to the bottom of the case and attached it to a swing arm with a dowel pin.



However, a loose fitting bolt with a lock nut would serve as well. (See left photo). The pivot arm then attaches to either the lathe bed or the drill press column (right photos) with an appropriate clamping fixture.



Now, I can stand at the lathe or drill press and select my drill bit. After use, I immediately put it back in the drill case without taking a step away from the machine. No more hunting for drills that were laid down at a convenient but forgotten place because I was too lazy to walk over to its drill case.