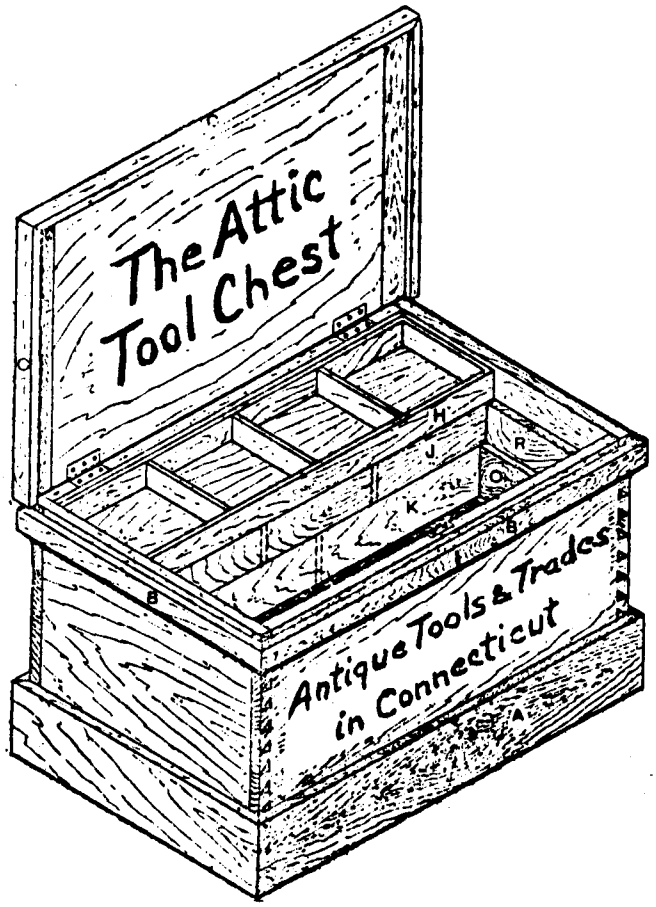
ISSUE 16 OCTOBER 1978



ATTIC DUST

JOINT MEETING OCTOBER 28 AT MYSTIC

Over 360 invitations have been mailed to members of the four tool collector's societies in the New England-Long Island region. Indications are that the meeting will be well attended. It will be held in the old Rossie Velvet Mill building that is now owned by the Seaport Museum. The part of the Mill we'll be using was last used for a welding school - for General Dynamics Corporation. Their Electric Boat Division builds submarines on the Thames River, about seven miles away.

Joe Link and Sherwood Chamberlain have finished sorting and packing Bob Carlson's tools, and are now working on his many books. A number of us will be involved in carting the tools to Mystic from Bob's home in Deep River. Hopefully, we won't be carting any back.

FRANK BAWDEN

At the Glastonbury meeting, we presented Frank with a copy of the Warren Axe & Tool Co. catalog of 1937, in recognition of his six years as Treasurer of ATTIC. In a note dated May 14, he asked that his thanks for the gift be expressed in the Attic Tool Chest. At the same time, he sent along the article that appears below, on how he cleaned his tools.

On the third of August, Frank died, at age 71. There was an unhappy gathering of a number of us at his funeral on August 7, at Newtown. Frank was a very staunch supporter of both ATTIC and E.A.I.A. For various reasons, many of us were very fond of him and Elsie. We will not forget him.

NEW BOOK IN OFFING?

Fellow member Kenneth D. Roberts, author and publisher of several books on tools, is making a study of 19th century American and English bit braces for the woodworking trades, hopefully for a future book publication.

Connecticut inventors and manufacturers made several important contributions in this field, particularly toward the last quarter of this period. Braces invented or made by the following are needed for further study: W.A.Ives, New Haven; O.Peck, Southington; I.C.Tate, New London; H.C.Bartholomew, Bristol; Charles M. Knowles,New London; H.C.Hart, Unionville; Turner & Degan, Bristol; Derby Bit Co., Ansonia. Any person having any of the above Connecticut-origin braces, or any other brace made in this period considered to be unusual, please get in touch with Ken at P.O. Box 151, Fitzwilliam, N.H. 03447.

NEW MEMBERS

We are glad to welcome the following 11 new members: There is some doubt about Dan Bilderback as to whether he is 11 or 13 years old. We'll find out at the Mystic meeting.

Dan Bilderback, 25 West Ave., Essex, Conn. 06426

Dudley H. Grape, 1100 Brookside Drive, Fairfield, Conn. 06430
Larry and Rachel Sheehan, 21 Lyondale Road, Newington, Conn. 06111
Peter Crawford, 45 Church St., Noank, Conn. 06340
Harlan H. Hutchins, P.O.Box 2437, Frederiksted, St.Croix, U.S.V.I.,00840
Thomas P. Wendland, Deepwood, RD3, Norwich, Conn. 06360
Jack Spieth, 118 Holmes Rd., Ridgefield, Conn. 06877
Ralph E. Drew, RFD 1 Box S-612, Wiscasset, Me. 04578
Barnet Delson, Dr., 21 Pasture Lane, Roslyn Hts., N.Y. 11577
Timothy B. Page, 430 Goose Lane, Guilford, Conn. 06437
George E. Kelm. 6 Godfrey St., Mystic, Conn. 06355

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CLEANING AND PRESERVING OBSOLETE TOOLS

by Frank Bawden

Tools are better left uncleaned than over cleaned. Before explaining the methods I prefer to use to remove rust and corrosion, let me advise you that my procedures are frowned on by many experts , as far as clean- choice material for museum use. Some of our museums have very highly sophisticated equipment for such work, which is far beyond the reach of our average collectors.

Now to describe to you the methods and procedures I use for cleaning and preserving the tools in my collection.

For cleaning badly rusted and corroded metal objects, start by brushing with a hand-held, stiff wire brush. When you have cleaned enough to expose any loose flaking, then, with a sharp instrument, pick away all loose particles. Brush thoroughly with a power driven wire brush to remove all active rust, being careful not to brush so extensively that you burnish the metal. When all of the active rust is removed, I try to stabilize the condition by sealing out air and moisture. For this I find a mixture of turpentine and beeswax makes a very satisfactory protective coating. I will give the formula for this mixture further along in this explanation.

For lightly rusted objects be careful not to clean beyond the condition under which the tool would normally have been used. Start by using the finest grade emery cloth that you think may remove the active rust. I work up to coarser grades as required to do the job, and have found anything coarser than a medium grade emery cloth will surely cut into the metal and leave permanent scars. Finish this cleaning with a power driven wire brush and then with a cloth buffing wheel, using only enough buffing compound to produce a good clean surface. If power tools are not available, a scrubbing with steel wool and turpentine will produce a finish equal to that of power brushing and buffing. Protect the object with the same turpentine and beeswax mixture. Several applications may be required to obtain the desired luster. Buffing with a soft cloth by hand is required after each application of the turpentine beeswax mixture.

For non-ferrous metals, I haven't found anything that works better than Noxon, the polish that can be purchased in your neighborhood store. Just follow the directions on the can. However, badly corroded objects require several applications, and chafed areas will need scrubbing with a bristle brush. I use a fingernail scrubbing brush - avoid nylon bristles, which are too soft. This also works well when cleaning such objects as four-fold rules, etc. When finished cleaning and polishing with Noxon, clean all surfaces several times with a damp cloth and warm water to stop any further action of the Noxon. If a permanent polished surface is desired, a coat of clear lacquer may be applied. Personally, I hate the stuff. A nice soft patina of old brass or bronze is much more pleasing than a highly polished surface to most of us.

For cleaning wood, again be careful not to destroy a beautiful patina by over cleaning. I first remove as much dirt as I can with a dry cloth -

then scrub with fine steel wool and turpentine; a bristle brush is necessary in irregular surfaces. When the tool is cleaned to my satisfaction, I let it dry for an hour or so then apply the same coating of beeswax and turpentine for protection and finish desired. Several applications, and buffing with a cloth by hand between each, may be required to accomplish the luster desired.

I have picked up tools so treated that have been hanging in my dusty shop for several years and find with a little hand buffing with a cloth I can raise a nice luster on either metal or wood. This tells me the protective coating is doing the service desired.

The turpentine and beeswax mixture I use is made up of about ½ pint of turpentine with a piece of beeswax a little larger than a hen's egg, shaved or broken into pieces and dropped into the turpentine. Let this stand for an hour or so, then stir the mixture, which should be of the consistency of whipped cream. If the mixture appears too thin, add a little beeswax; if too thick, add a little turpentine. This mixture can be stored for long periods of time, but tends to solidify - if so, add more turpentine to have the consistency of whipped cream before using. If the mixture is applied when too stiff, you may have a sticky finish. Better too thin than too thick.

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If you begin to read the material below, and conclude that something is missing and that you're in on the middle of something, you'd be wrong - you're in on the end of something, the end of the next eight pages. This chapter on spinning objects from sheet metal is from the book Home Mechanics for Amateurs by George M. Hopkins. The book was part of the Scientific American Series, and was published in 1903.

base piece being soldered in a spherical connecting piece. The two halves of the ball, Fig. 186, are made upon the same form. The edges are beveled and soldered together. The pitcher, Fig. 187, is made of five spun pieces, a short cast and turned piece that unites it to its base, and a handle made of square wire. The card receiver, Fig. 188, has a spun top and base, and a cast standard. The vase, Fig. 189, consists of four spun pieces and three legs of square wire, uniting the body with the base. Fig. 190 shows a base for a magnetic needle or other small apparatus. Fig. 191 represents a vase composed of seven spun pieces and two handles of square wire. More complex examples of work done by the process of spinning might be furnished. The ones given are undoubtedly sufficient to enable the amateur to get an idea of the endless variety of articles that may be made by this simple and easily acquired art.

METAL SPINNING

The operation of spinning metals, although exceedingly simple and capable of being practiced to advantage in almost every shop, and also by the amateur mechanic upon the foot lathe, is not generally understood. One reason for this is that the artisans who follow this

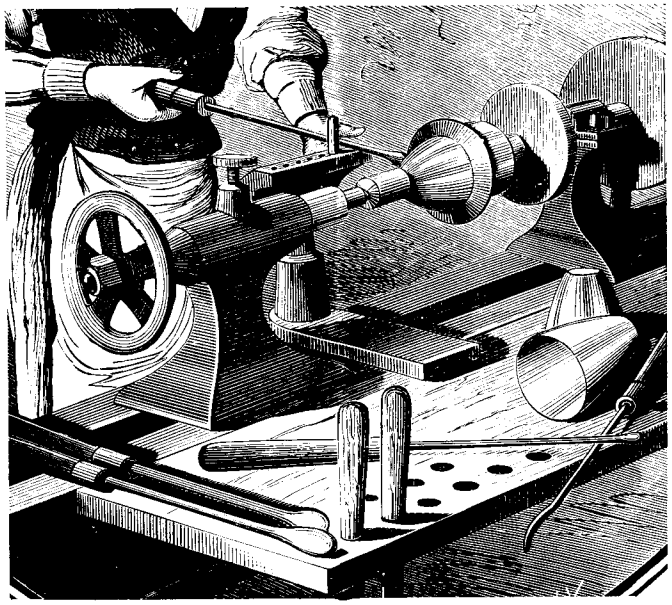

FIG. 173. Metal Spinning.

branch of mechanics as a business usually conduct it under locked doors, and it is with considerable difficulty that the amateur in search of information on this and kindred subjects can obtain entrance to one of these establishments. The reason of this secrecy is plain enough, as the "kink" or "wrinkle," or, in plain

English, the knowledge required to do the mechanical part of spinning is so slight that secrecy is the only protection.

The tools required are few. They consist of a lathe; a form or mould on which to shape the article; a tool rest with a series of holes for receiving a pin to keep the

FIG. 174.

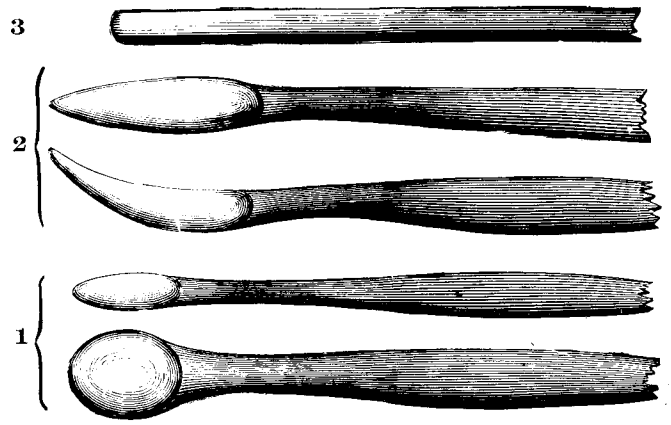

FIG. 175. Spinning Tools.

tool from slipping, and a few spinning tools or burnishers of different sizes and shapes.

The lathe the amateur is supposed to possess; the tool rest he may easily make; and the only other addition to the lathe will be a back center of the form shown in Fig. 174. This form of center answers as a step to the work holder, and will bear considerable pressure without undue friction.

The tools required are shown in Fig. 175. These are

simply hard steel burnishers of the form shown, and varying in size with the size and kind of work to be done. The size given in the engraving is about right for amateur work on a foot lathe. No. 1 shows in two

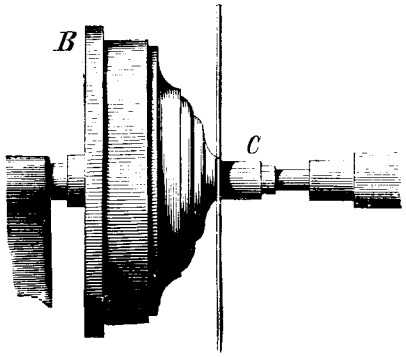

FIG. 176.

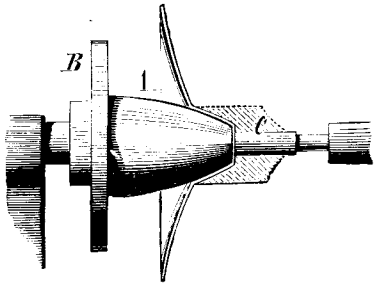

FIG. 177.

The Forms in the Lathe.

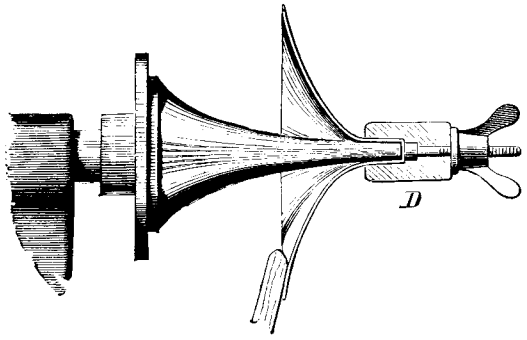

FIG. 178. The Use of the Bolt.

views a ball tool. No. 2 shows both side and edge views of a curved tool. No. 3 shows a plain round burnisher. In some instances it may be necessary to make tools of different forms. The operator will be guided in the selection of his tools by the particular work in hand,

and practice will bring new suggestions as to the tools and the manner of using them.

The materials generally used in spinning are brass, copper, zinc, britannia metal and lead. All of these may be worked on the foot lathe, but perhaps the ama-

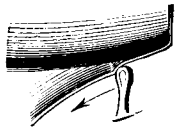

FIG. 179.

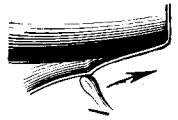

FIG. 180.

The Movement of the Tool.

teur will derive the most satisfaction at first by using britannia metal, as it works easily and does not require annealing. Articles in this metal also present a handsome appearance when done, whether simply polished

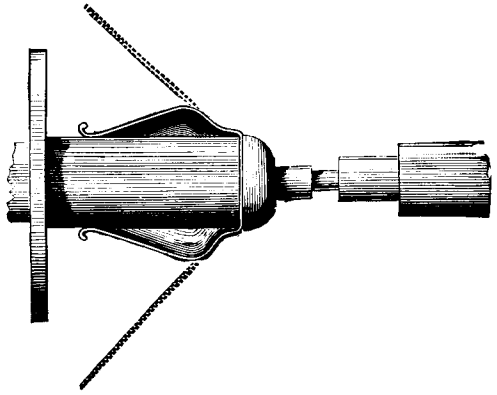

FIG. 181. Spinning without a Form.

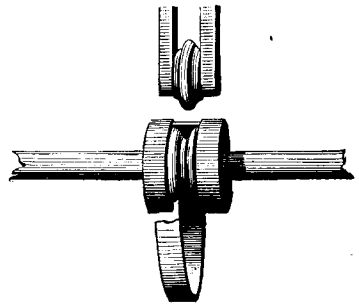

FIG. 182. Spinning a Ring.

or plated. Zinc must be spun quite hot. Articles of brass, if of considerable depth, must be annealed when partly done.

The form on which the metal is spun may be either hard or soft wood or metal. A good close grained pine answers as well as anything for most purposes, and is very readily turned to the required form. It may be attached to the face plate, B, and the disk to be spun may he held against it at first by a hard wood or metal piece, C, as shown in Figs. 176 and 177, which is forced against the disk by the tail center. After the spinning is a little advanced, a cup-shaped holder is applied, as shown in dotted lines in Fig. 177. Sometimes the

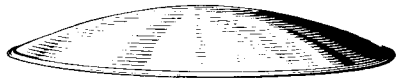

FIG. 183. Concave Reflector.

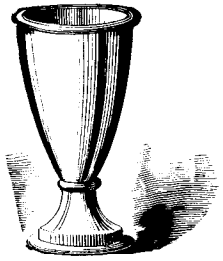

FIG. 184. Cup.

holder is secured by a bolt that runs through both it and the form or mould, as shown at D, Fig. 178. In some cases a little rosin is applied to the form to increase the friction, but this is rarely necessary. The motion of the lathe should be quite rapid, and the disk should receive a coating of grease (lard or heavy oil) before applying the burnisher. A very strong solution of soap may be used instead of oil. The position of the workman and the manner of holding the tool may be seen in Fig. 173. It will be noticed that the pin in the tool-rest serves as a fulcrum for the tool, which must be brought with considerable pressure against the sur-

face of the disk. This pin is moved forward from time to time as the work advances. The movement of the tool may be seen in Figs. 179 and 180. The shape taken by the metal in front of the tool will also be seen. In swinging the tool toward the form it is moved in the

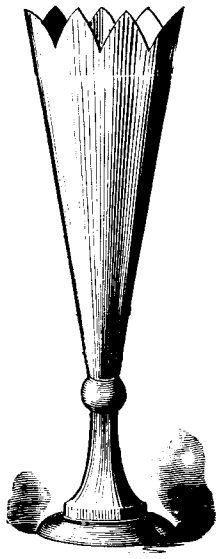

FIG. 185. Vase.

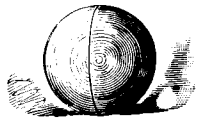

FIG. 186. Ball

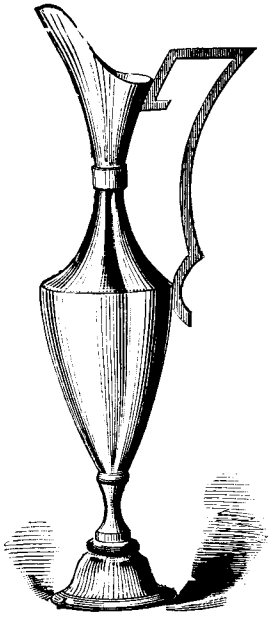

FIG. 187. Pitcher.

direction of the arrow as shown in Fig. 179, and it is carried back as shown in Fig. 180. This last operation is very essential to the proper fitting of the mould, and it also thickens the metal. Too much should not be attempted at a time. A succession of quick movements, as indicated in Figs. 179 and 180, under a moderate pressure is much better than to do a great deal of execution at a single stroke. Should the metal tend to

vibrate or buckle, a piece of wood may be applied to the back with the left hand, as shown in Fig. 178.

The method of spinning a cup or pot without a form is illustrated in Fig. 181. Here the metal is supported by a plain cylindrical mandrel, and is first spun into

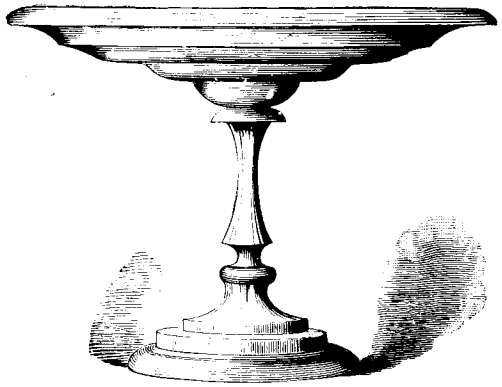

FIG. 188. Card Receiver.

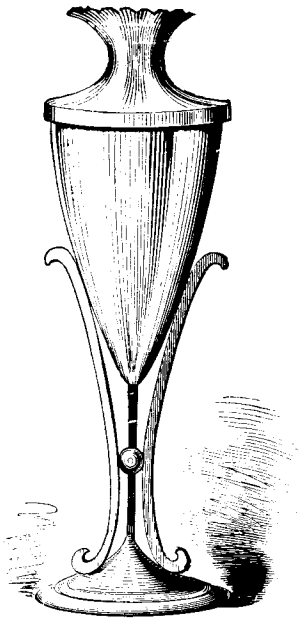

FIG. 189. Vase.

the form indicated by the dotted lines, and then bringing the burnisher on the return stroke only to the shoulder which forms the larger part of the vessel. For small work on the foot lathe the handles of the tools need not be as long as represented, in Fig. 173. The length commonly employed for wood turning tools will answer.

To spin a ring, a mandrel like that shown in Fig.

182 will be required. A plain flat ring placed between the shoulders of the mandrel is pressed upon by the roller seen above the mandrel until the ring assumes the desired form. Napkin rings are made in this way.

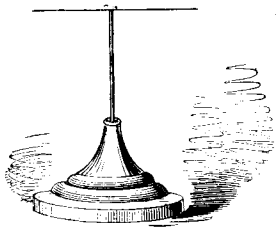

FIG. 190. Base.

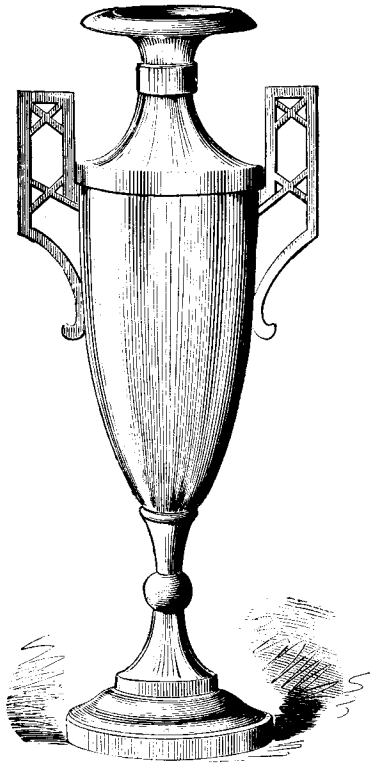

FIG. 191. Vase.

Fig. 183 shows a concave reflector. Fig. 184 represents a simple cup formed of two pieces. Fig. 185 represents a small vase made of three pieces, the smaller end of the upper or conical part and the upper portion of the