

The Newsletter of the Horological Tool Chapter #173 of the NAWCC

Tool Enthusiasts' Round-Up

In This Issue: W.D. Clement: The Man & His Lathes

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W.D. Clement, Toolmaker

Chapter #173 of NAWCC: Horological Tool Enthusiasts

The *Tool Enthusiasts' Round-Up* is the newsletter of the National Horological Tool Chapter #173 of the National Association of Watch and Clock Collectors, Inc., a non-profit educational organization. This is a national chapter, and is open to any member of the NAWCC.

This chapter and its newsletter are intended to foster interaction among NAWCC members who share a common interest in the use and collection of horological tools of all sorts. If you have an item you have researched, a book of interest, or notes on a project you have made, please consider sharing your knowledge with others through this newsletter. Editorial help and writing assistance are available to help you organize an article. Submissions should be sent to the Editorial Director.

Annual chapter dues of \$10 will ensure that members in the Horological Tool Chapter receive the quarterly newsletter and are included in the Membership Directory when it is published. Members are also entitled to one classified ad (see last page) in each issue. If you are interested in joining this chapter, which will meet at various large regionals and also at the National each year, please send your annual dues to the Chapter Secretary/Treasurer.

For further information, please contact one of the #173 Chapter Officers.

This Issue Focuses on W.D. Clement, a Controversial Watch Tool Genius, Active at the Beginning of the 1900s.



What is it?



Answer on page 15



Chapter Meeting News

The Horological Tool Chapter will meet at the NAWCC Eastern States Regional in August. Look at the bulletin board at the event for the meeting time and location.

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President's Message

There has not been a meeting of the Horological Tool Chapter for a while. I was at the Orlando Regional, the Mesa, AZ Regional, and the Ft. Mitchell Regional, and there was no time allotted at any of these events. I have asked for a time slot at the National in Anaheim, and the Orlando show in February. There will definitely be a meeting in Syracuse in August—they assign a time whether or not I need one. Sorry there's no other news, but enjoy the latest issue of the *Tool Enthusiasts' Round-Up*, featuring W.D. Clement.

Respectfully,



Harvey Schmidt, FNAWCC, President



**Dan Neid, NAWCC Director
of Education & Clement
Lathe Afficionado**

William D. Clement — Inventor, Manufacturer, Salesman

William D. Clement was born in Antrim, New Hampshire, the tenth child of a farmer and Civil War veteran. When he was sixteen years old, Gene Swain of Waltham, Mass., and owner of the Horological School, recognized Will's ability, and invited him to join the Swain household and to study at his school. Mr. Clement also took correspondence courses and tried in many ways to further his education. Eventually he invented the best precision lathe in the world, usually referred to as a "watch-maker's" lathe, although it was used for other work such as model making, and by the government for precision repair work. At one time, M.I.T. bought a lathe for display.

Mr. Clement bought the ice house on Bacon Street and turned it into an attractive factory where he worked until June 1946, when he died of a heart attack at the age of 70. He was a very genial, friendly, intelligent gentleman, especially interested in history. He was a hard worker, arriving at the factory by 6:30AM six days a week, and often working at his drawing board at home in the evening. His customers were from all over the world.

“When he was a young man, he climbed Mount Washington one night with his bicycle and a lantern, and at dawn, after breakfast at the hotel and in front of friends who were fearful of his losing his life, he tied a R.R. tie for a brake to his wheel and successfully rode down Mount Washington.”

—Velma Clement Walker

American Lathes & Lathe Makers

*Originally by W.D. Clement, written ca. 1945
(Slightly edited for readability.)*

Stark

For many years the claim has been made by the Stark Tool Co. of Waltham that they were the original makers of the spring chuck, hollow spindle lathe for watchmakers. As they were definitely established in 1862, and no one else seems to have been established yet, their claim is probably correct. For about 30 years they manufactured several sizes of lathes, some larger and some smaller than the present day size. They discontinued making the small lathes and shifted to making the larger lathes for machinists many years ago.

Hopkins Van Norman

Mr. Hopkins started making watch lathes in Waltham in 1875. He moved to Springfield about 15 years later, and discontinued making these small lathes. Like Stark, he began making larger lathes, as well as other large machinery for machinists. When moving to Springfield, for some reason he saw fit to change his name from Hopkins to Van Norman, and has been known by that name since.

Moseley

Moseley Lathe Co. seems to have been established in Elgin shortly after Stark began, probably about 1870. They appear to have been successful for many years, but we do not seem to hear but little of them at present.

Ballou

Mr. Ballou established in Waltham making watch lathes about 1872. He continued for a few months when he took in a partner, Mr. John E. Whitcomb.

Whitcomb

The partnership of Ballou & Whitcomb continued for a few months, when the concern was formed into a stock company.

Webster

Ambrose E. Webster was the new active partner in the newly formed American Watch Tool Co. Mr. Whitcomb remained and Mr. Ballou withdrew. Mr. Webster had already been Assistant Mechanical Superintendent at the Waltham Watch Co. He seems to have been the guiding genius in the new company, both mechanically and in a business way, and the company grew and prospered until his death in Paris in 1894. This company made the Webster-Whitcomb lathe for 40 years. The whole establishment was sold at auction in 1918 in 1,800 parcels.

Rivett

Edward Rivett was formerly employed at the Waltham Watch Co., but left them and worked for C.A. Crosby as a watchmaker in Boston for some months. He started the manufacture of the Rivett lathe in 1882. He disposed of his interests in the lathe company in 1915; the company has since discontinued the manufacture of the watch lathe.

Derbyshire

F.W. Derbyshire was with the American Watch Tool Co., but left to start in making lathes in 1913.

Clement

W.D. Clement came from New Hampshire to Waltham in 1891. He learned the watchmaking trade in the Waltham Horological School, and taught there for four years. Leaving the school in 1895, he spent several months in traveling about the country picking up much valuable information. In 1896, he started on the road selling a general line of supplies for the watchmaker and jeweler. For six years he continued travelling, mostly from New Brunswick to Ohio enlarging the business, later going in for himself in New York City where he continued until 1900.

1862 to 1924

The following has been gathered from six years travel among the watchmakers on the road, from lathe makers in Waltham, from old-time watchmakers and other sources.

In this six years on the road and being in position to learn just what the various watchmakers, ages from 15 to 75 years of age had, and judging from their reputations as watchmakers, I learned that from 1862 the workmen bought quite complete lathe outfits, costing at that time from \$400 to \$600 and in some cases more.

25 Years of Declining Interest

For some reason, from 1875 to 1900 interest in Watchmaking seems to have declined; workmen bought less tools, cheaper lathe outfits, and seemed to be trying to see how much they could get out of the work and how little they could put into it in equipment. Yet it was clear that those who had fine lathe equipment did by far the best work and could do any work brought to them in all branches, in A-1 shape.

An Invention

In trying to figure out the conditions while on the road, it appeared clear to me that the main reason why men did not have the complete lathe outfits needed to do their high grade work was that the outfits cost so much money, as there were about a dozen lathe attachments. I set to work to produce a combination lathe attachment which would do the work of all the other lathe attachments and also do much more and have as many advantages as possible over all those then in use. This lathe attachment must also be designed so as to fit any make and size of lathe.

The result was the invention of the Clement Combined Lathe Attachment, replacing 12 attachments, and having 30 advantages besides. This resulted in the sale of many thousands of these attachments all over the world. This attachment was later made a part of the Clement Master Watchmakers Lathe Outfit, with 115 improvements.

Although I have gotten out many other tools etc. among which is the Clement Hollow Graver, still, owing to the constantly increasing demand for the lathe outfit, have found it necessary to give all attention to the manufacture and sale of the lathe.

Since the Master Watchmakers Lathe Outfit was brought out and placed on the market at a low price—an outfit with which the workman can do a much greater variety of

work than on any ever offered before, and since the country has come to realize that we must have better watchmakers, and these efforts have had the support of the leading jewelers organizations, there has been a great revival in interest in the watchmaking world. Hundreds are getting better lathes.

Larger Sizes of Clement Lathes

Up until about 1930 we had calls for the Clement lathe outfits from about 75 different lines of business; since then it has increased to about 100. We began making larger sizes of lathes, just enlargements of the watchmakers style.

The watchmakers lathe swings 4 inches and has a bed length of 12, 15 or 18 inches (we supply the 12 inch unless otherwise ordered); the next size swings 5 inches and has an 18 inch bed length, but takes the watch size chucks—every size from No. 1 to 112 (which is 7/16" capacity). Up to No. 80 chucks (5/16") feed clear thru chuck and lathe head.

For all five sizes of lathes we make about forty different attachments for every possible variety of work, including screw cutting, wheel cutting, etc.

Nickel Plate

All Clement lathes (all five sizes) are supplied in full nickel plate unless otherwise ordered.

Chromium

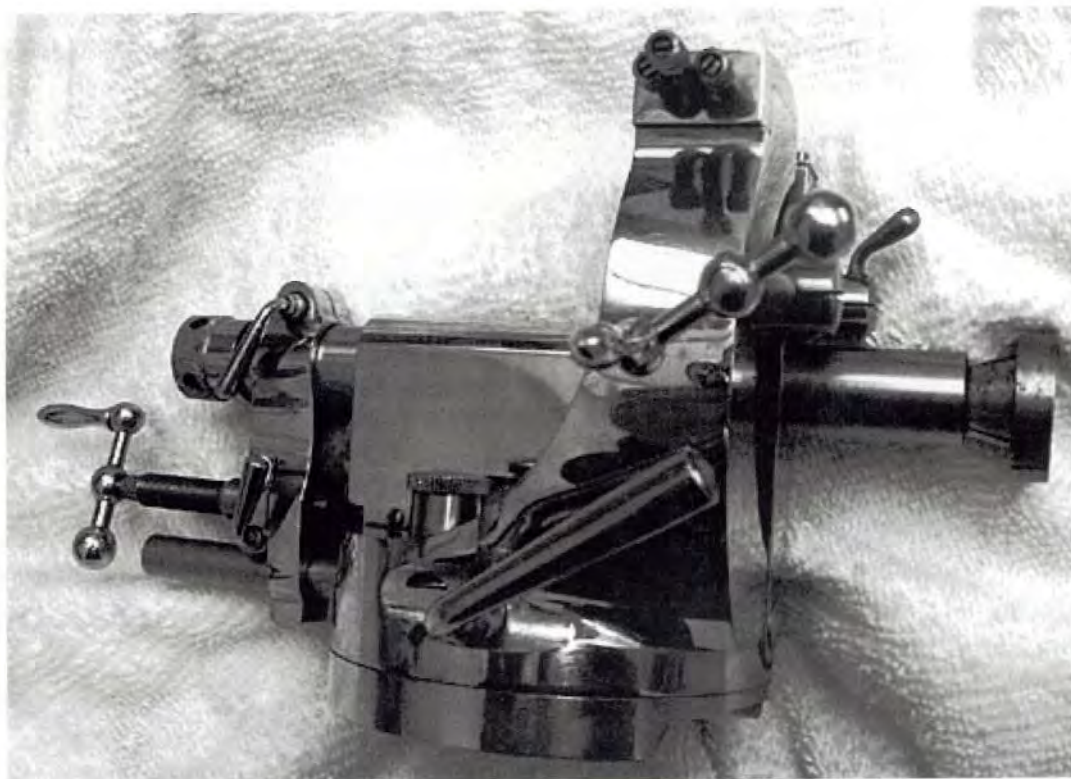
We have found this finish unsatisfactory; it is very difficult to have this applied uniformly all over the parts.

Quality Plus

All thru World War I and also WW II we have maintained our high quality in every respect; including finish as well as other workmanship, and have made numerous improvements throughout the outfit.



8mm/10mm Clement Lathe With Jewelling Tailstock



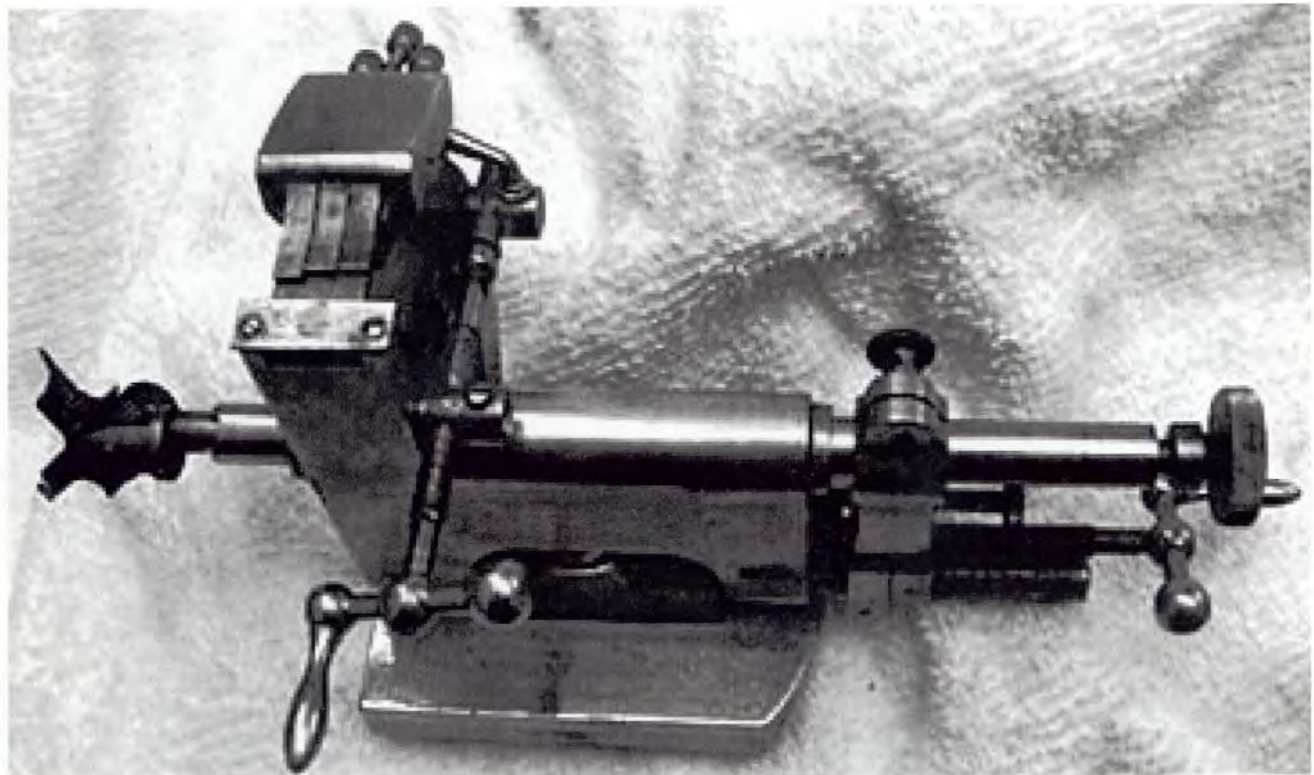
Clement 10mm Collet-Holding Jewelling Tailstock



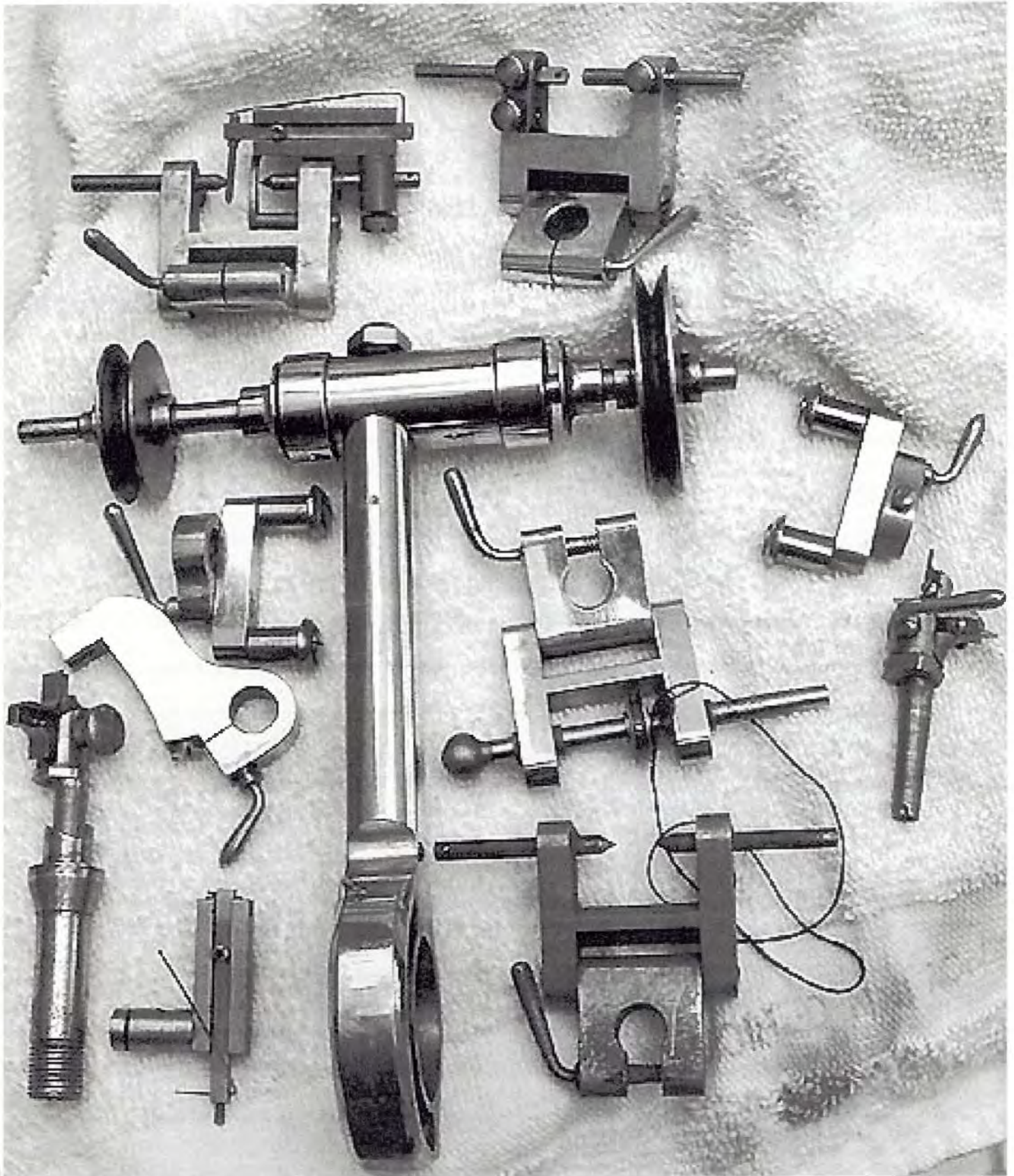
Clement Lathe Accessory Box, Including Jewelling Tailstock



Collet-Holding Clement Jewelling Tailstock



Clement Jewelling Tailstock With Taper Pin Accessories



Clement Lathe & Tailstock Accessories

Lathes of the Past

by W.D. Clement (Slightly edited for readability.)

While we are all much more interested in the future than in the past, as a matter of general practice, we usually like to have some knowledge of what has gone before. And besides, those we mention below are not all gone, for there are some of all the types mentioned still in use, not only in Europe, but in the United States as well. Many hundred in fact, of every style mentioned. All except our very youngest watchmakers have seen, or at least heard of them all, and many of our readers have used some of them.

The Fiddle Bow Lathe

The Fiddle Bow Lathe gets its name from the fact that it is not operated by a motor, nor a foot wheel, but running back and forth by hand a fiddle bow arrangement that would wind around the small pulley of the lathe. The lathe is usually attached to a base screwed on the bench and when not in use is removed and hung on the wall. It has no hollow spindle, does not take chucks, but the work is usually held on centers (hollow centers). While the operator runs the fiddle bow with one hand, he does the turning, polishing, etc. with the other.

And to the watchmaker of today who is accustomed to the very latest American lathe, it may seem impossible when we say that one who is expert in operating the fiddle bow can do lathe work in nearly every branch superior to the average man who is familiar with the latest lathe. The same man, however, can do a much finer job on the latest lathes; but it shows that fine work is possible on the fiddle bow by an expert.

The Vise Lathe

Most of these have a hollow spindle. Instead of fastening to the bench they are screwed in the vise. They are usually operated by handwheel, and the wheel is attached to the lathe. When not in use both are unscrewed from the vise and hung up on wall.

Separate Machines

These are necessary for various branches of work with

the above types, and so we find the separate wheel-cutting engine for wheel cutting, usually made of brass and capable of doing general wheel cutting, (after a fashion); separate rounding-up tool, also of brass. These separate machines are permanently fastened to the bench. Brass lathe with two or more spindles, one for cement work, one for jewelery with universal face plate attached, and so on for the various branches of the work.

None of the spindles are hollow, however, and none of them take chucks. Each spindle must be removed from the lathe and another put in, every time you change from one job to another.

Round Bed Lathe

This is of Swiss make, usually, and bed is round piece of iron. This lathe is smaller than American lathe.

Square Bed Lathe

This is similar to Round Bed, except that bed is square.

Triangular Bed Lathe

This is the same as above, except that bed is three cornered.

Left Hand Lathe

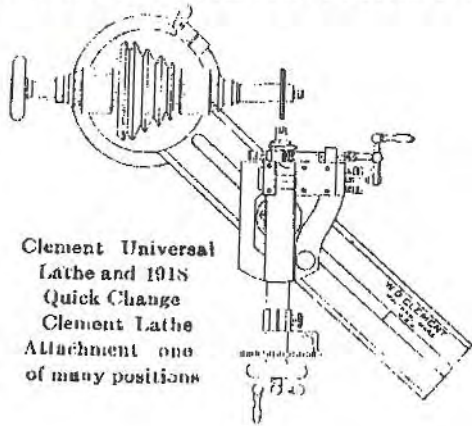
These are made by various Swiss makers, and they are used the same as our regular lathes, except that the bed extends to the left from the head, and chucks fit in the left side. In fact, the lathe is directly opposite from ours. Some hundreds are used in U.S.

Foreign Lathes

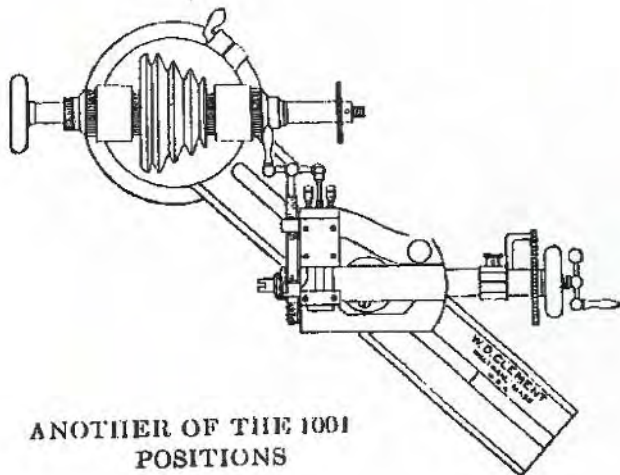
These are foreign lathes in the American style, and imitate the American lathes as far as they can without getting into difficulties over patents. They are made in England, Switzerland, in particularly in Germany; they have freely imitated the Webster-Whitcomb and Moseley for many years; not the Clement, however, as that is so thoroughly covered by patents, and also, the foreign workmanship is not good enough to do the work of the Clement.

Foreign lathes, however, are not well enough made for high grade trade work. So, while one third of all the American watchmakers have for 40 years bought cheap imported lathes, still the two thirds of all our watchmakers, (the best workmen) always have, and we believe always will, buy the best American lathes.

AS A SEMI-AUTOMATIC TURRET LATHE



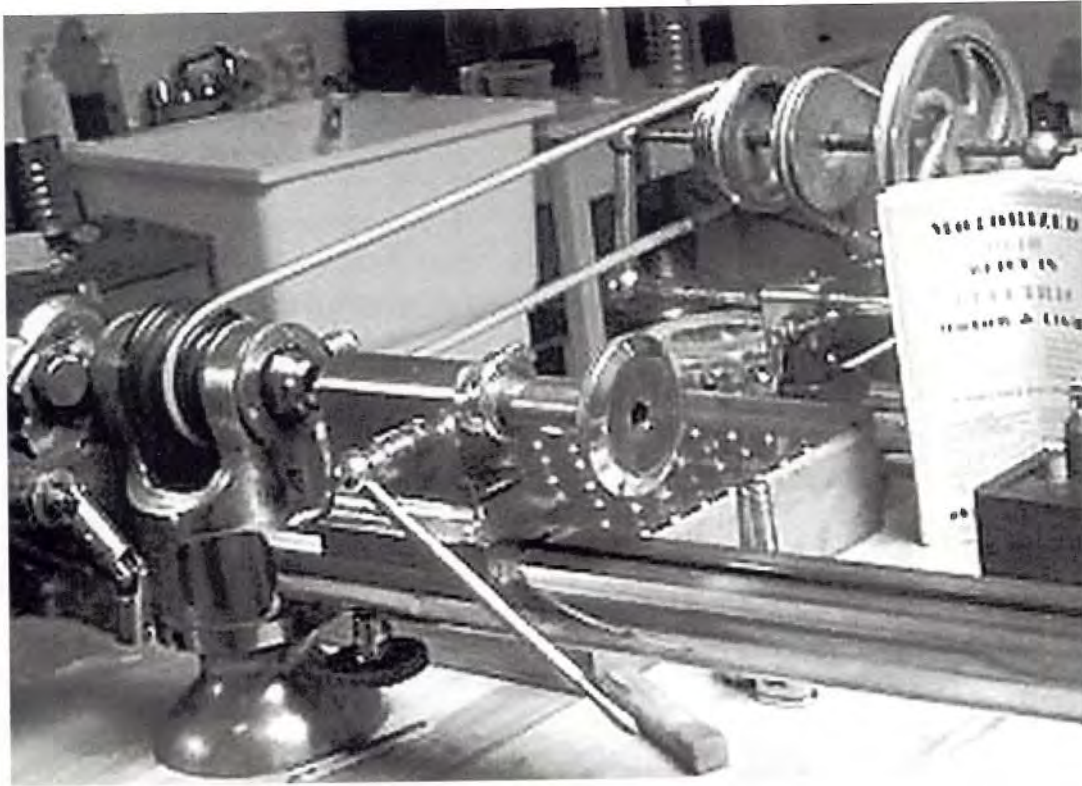
Clement Universal Lathe and 1918 Quick Change Clement Lathe Attachment one of many positions



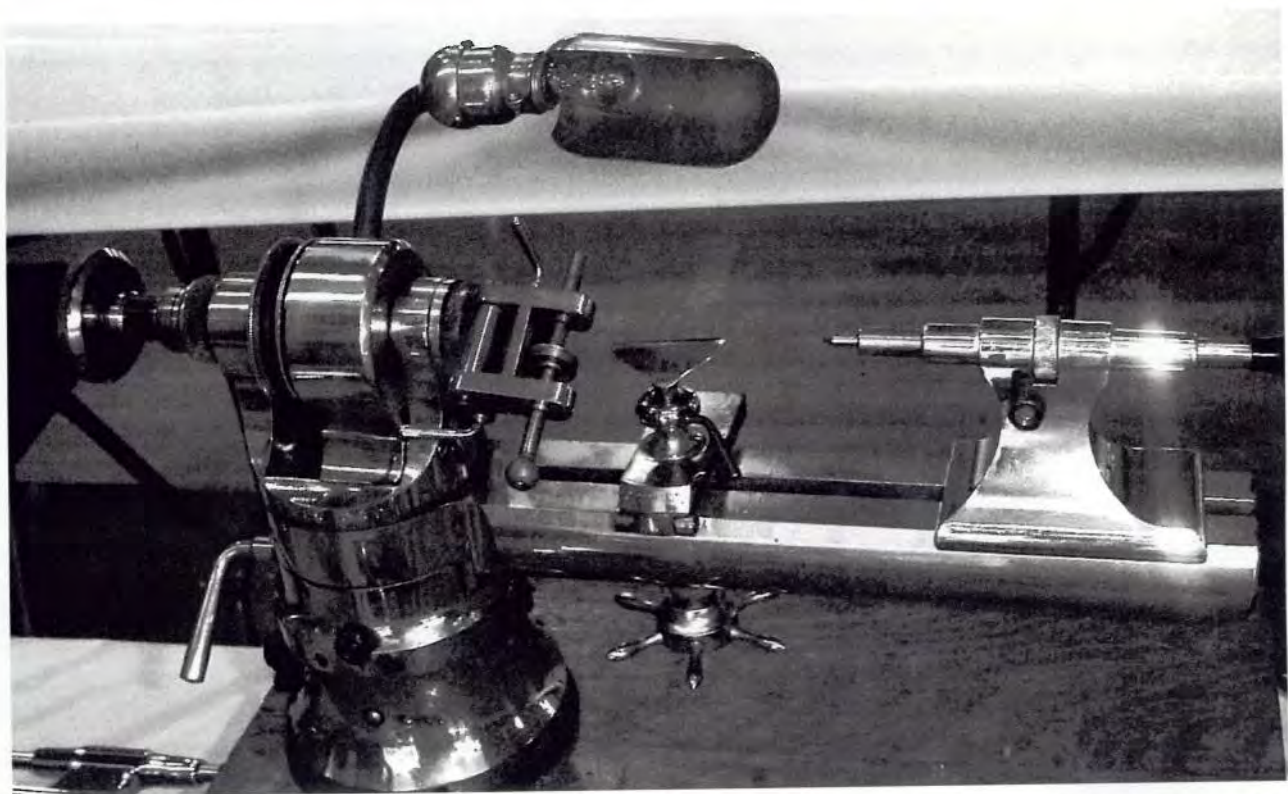
ANOTHER OF THE 1001 POSITIONS



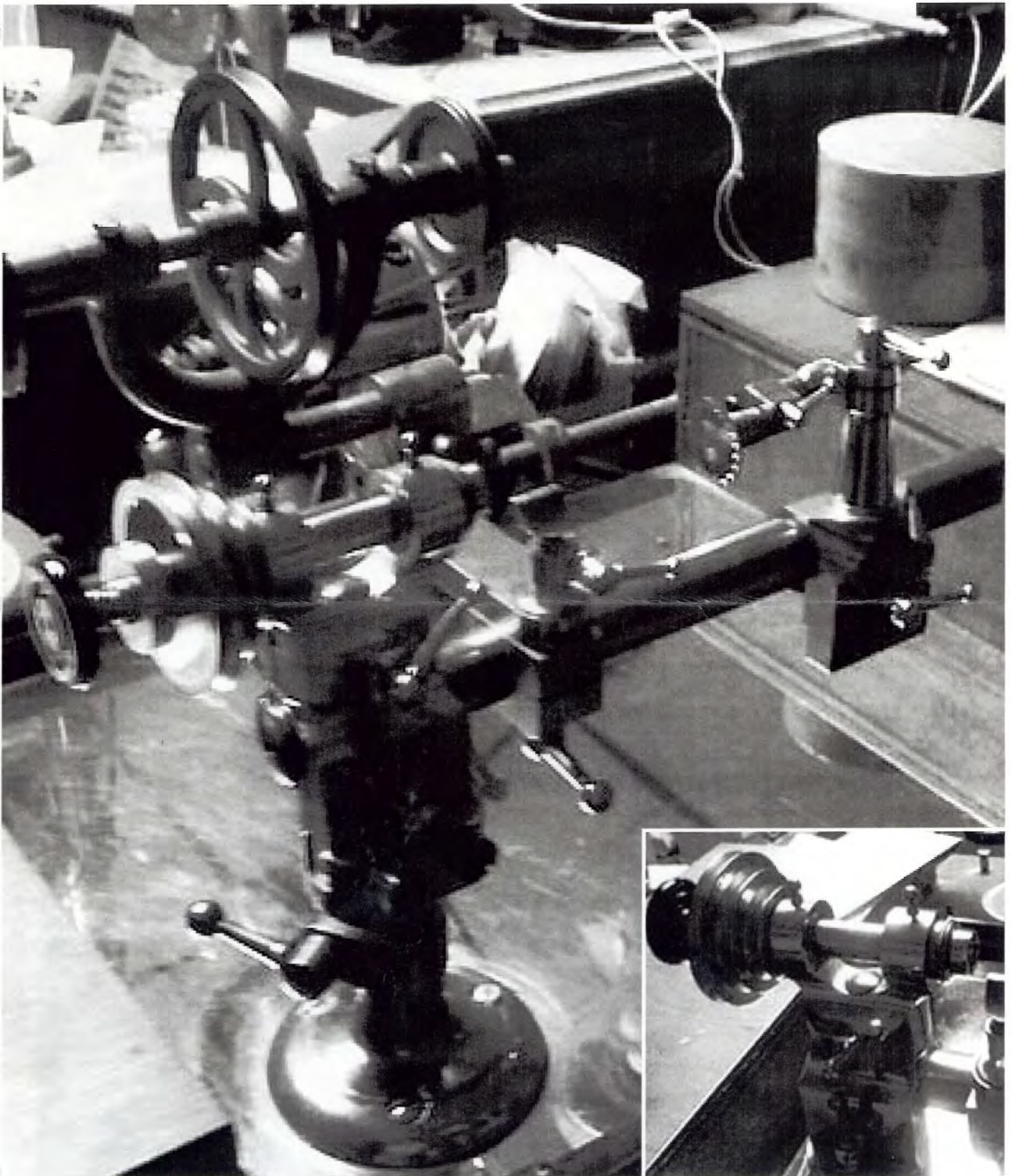
John Lelievre, Watchmaker, Tool Chapter Member & Contributor of Much of the Clement Historical Material in This Issue



Lathe Used by W.D. Clement, Now Owned by Dan Neid



Clement Lathe Owned by Harvey Schmidt, Chapter #173 President



Boley Lathe With Rotating Headstock

Chapter 173 financial report for Fiscal Year 2000

HOROLOGICAL TOOLS CHAPTER 173
 NATIONAL ASSOCIATION OF WATCH AND CLOCK COLLECTORS

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Dec. 01, 2001

Financial Statement for FY 2000

(equivalent data for FY 1999 in parentheses)

Starting Balance July 1, 2000	\$2434.09	(\$1923.40)
Income		(\$1060.00)
Member Dues	\$1565.00	
Boley Catalog Contribution	170.00	(205.00)
Video Sales	75.00	(15.00)
Donations	50.00	
	<hr/>	<hr/>
Total Income	\$1865.00	(\$1280.00)
Expense		(\$261.78)
Mailing	\$ 387.07	(354.80)
Printing	375.51	(32.73)
Supplies	47.66	
Reprints	428.48	(120.00)
Video Purchases		
	<hr/>	<hr/>
Total Expense	\$1238.72	(\$769.31)
Net: Income - Expense	\$626.28	(\$510.69)
Ending Balance June 30, 2001	\$3060.37	(\$2434.09)

Respectfully submitted,



Thomas M. Hammond
 Treasurer, NAWCC Chapter 173

Tool Chapter Financial Statement

Wanted:

Levin 3C instrument lathe, Aciera precision mill, Favorite jewelry tool & Portescap Gradoscope type GD #7. John Barrs, 3924 SW Holden St., Seattle, WA 98136.

Metric 10mm "D" collets & other 10mm tooling plus name of shop to replace bearings in Levin grinding spindle. David Blocker, POB 75003, Dayton, OH 45475-0003.

Derbyshire "Elect" model attachments — pivot polisher (grinder), adjustable-height grinder, double roller filing attachment, screwcutting attachment. Have items to trade or cash. Jim Dill, PO Box 5044, Greeley, CO 80634. Tel: 970-353-8561. E-mail: jimdle@yahoo.com

Antique clock & watch tools before 1900. Bruce Forman, 521 15th Ave., Bethlehem, PA 18108. Tel: 610-691-0793.

Lower suspension block for Tiffany never wind clock. Ed Foxworthy, 526 Sussex Dr. SW, Huntsville, AL 35824-1306. Tel: 256-772-3393.

Swiss or German made machinery: gear cutting equipment, unusual knurls. Shop & lab measuring devices. Mark Fulmer, call collect 330-877-2021 or e-mail: markusfu@hotmail.com

Serial numbers & other details of unusual lathes, attachments & accessories made by Faneuil Watch Tool Co. or Rivett Lathe. Also Rivett "ideal" collets, .325 in. shank. Tom Hammond, 3258 Forest Gale Dr., Forest Grove, OR 97116. Tel: 503-359-1134, e-mail: thamm10502@aol.com

Webster Whitcomb well equipped lathes & original lathe & tool catalogs with prices. Greg McCreight, 1336 Allentown Rd., Lima, OH 45805.

Watchmakers lathe accessories: cross slides, milling attachments, 3 & 4 jaw chucks, collets. Harvey Schmidt, 75-80 179th St., Flushing, NY 11366.

ManSon/Master lathes. They are small, black, gray or aluminum & of unusual shape. Were current in the '50s. Daniel Semel, 245 E. 80 St., New York, NY 10021-0515.

Pieces of wheel cutting engines for parts/restoration. Mel Smith, 2631 Amawalk Rd., Katonah, NY 10536.

Offered:

Elgin horizontal milling machine, 5C spindle, 3-phase variable motor & cabinet, \$850. Mark Fulmer, 3044 Smith Kramer St., Hartsville, OH 44632.

Castings for making reproduction Rivett countershafts, \$40 to \$55. Other machining services. Tom Hammond, 3258 Forest Gale Drive, Forest Grove, OR 97116.

Rounding-up tool: see Crom's HST figures 1162 & 1163. 24 cutters in drawer, missing 5 brass wheel supports, \$750. Donald Ross, 3 Harrow Way, Middlebury, VT 05753. E-mail: ccpsdon@hotmail.com

Each current chapter member can place one "wanted" and one "offered" ad in each issue at no charge. Additional ads placed are \$25 per column inch per issue.

Send ad copy to:

Horological Tools, NAWCC Chapter #173
c/o Harry Blair
7 Hansom Ln.
Marlboro, NJ 07746

Include a SASE if reply is needed.

.....
• **Answer to "What is it?"** •
• "Machine a Roboter"—Wheel teeth finishing using a file. •
• Ted Crom book, pg. 583 •
•.....

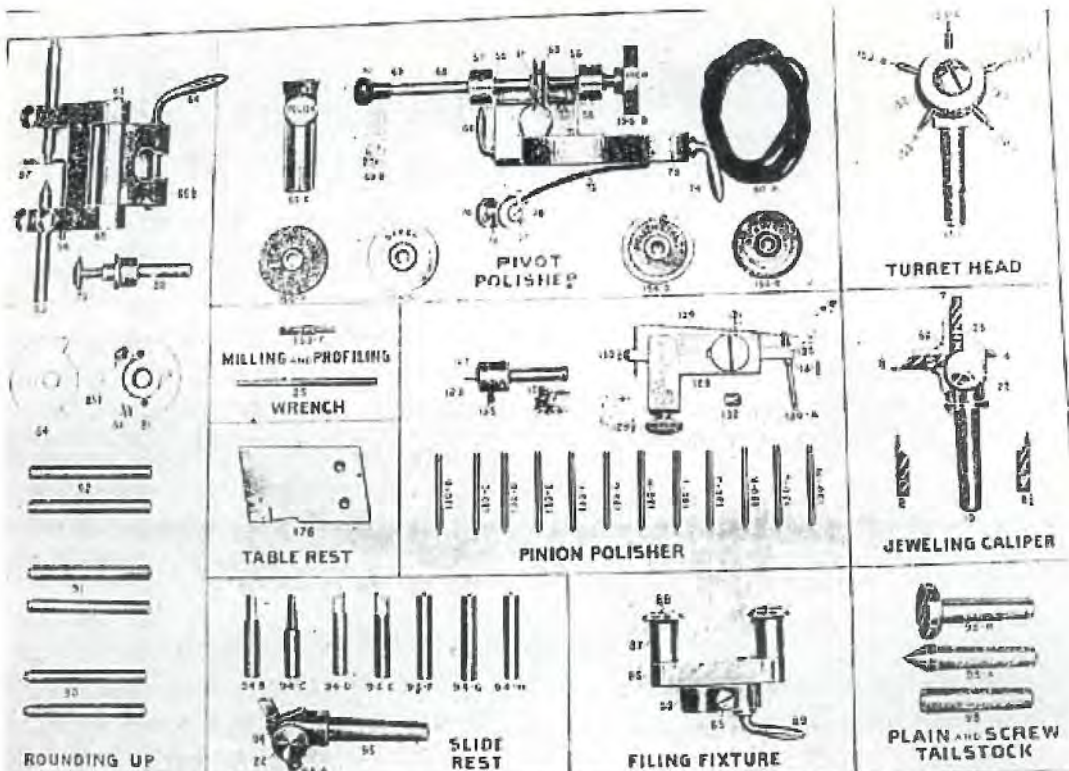
General Information:

The Henry B. Fried Annual Memorial Horological Tour has been putting a growing emphasis on horological tools, factories and tool museums, and visited England, Scotland, Isle of Man, Ireland and Norway in August 1999; Switzerland, Germany and England in March 2000; China and Thailand in September 2001. For info on the June 2002 horological tour of Russia, Finland and Hungary please call Nick Lerescu, tool chapter member and President of Advantage Tours, 1-800-262-4284.

- W.D. Clement: The Man & His Lathes
- Chapter Activities
- Classified Ads

Mr. Ronald G. Bechler
 726 Royal Glen Dr
 San Jose, CA 95133
 6/2002

Tool Enthusiasts' Round-Up
 NAWCC Chapter '173 Newsletter
 75-80 179th St.
 Flushing, NY 11366



5 INCLUDED WITH THE CLEMENT COMBINED LATHE ATTACHMENT. SOME OTHERS ADDED IN 1921 '21

W.D. Clement Lathe Accessories