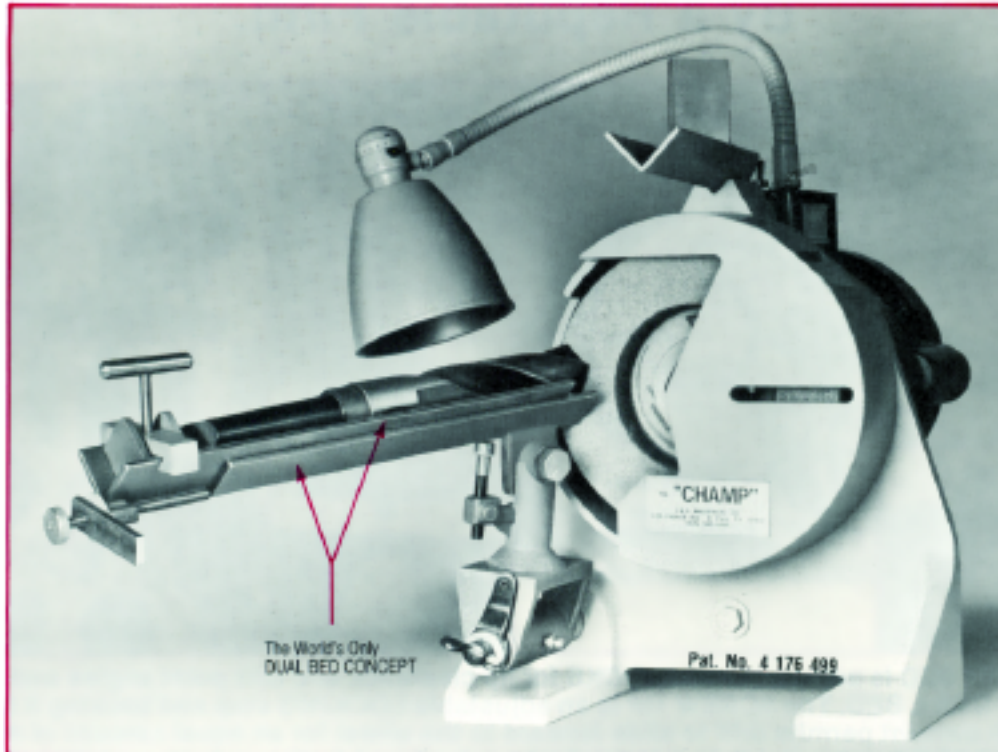


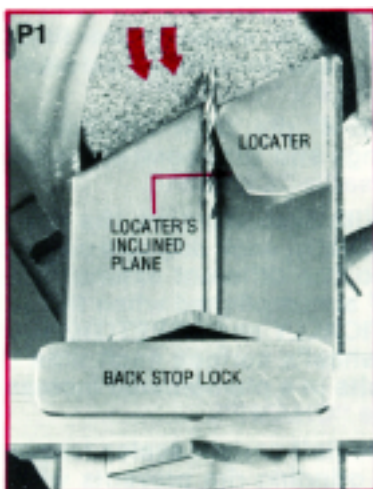
The "CHAMP"

The World's Fastest, Widest Capacity And Lowest Cost Drill & Tool Grinder

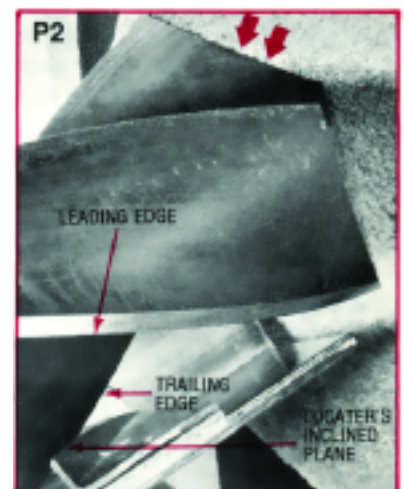
GRINDS A 2" DRILL UNDER 2 MINUTES * DIAMETER CAPACITY No. 60 THRU 3"
THE "CHAMP" ALSO GRINDS SPLIT POINTS, DUBBED DRILLS, LEFT HAND DRILLS,
SPADE BLADES, THREADING BITS, TOOL BITS, PUNCHES, DIES AND TRACK BITS.



The "CHAMP'S" patented locator astounds countless thousands of visitors at IMTS, SME, and other Machine and Tool shows throughout North America.



In P1, note that the locator's inclined plane inclines rearward, locking smaller drills at front end as shown; larger drills progressively towards open end (P2). Therefore, with NO TIME CONSUMING adjustments for different size drills, locator is BONDED in place to produce a RIGID DRILL LOCKING DEVICE.



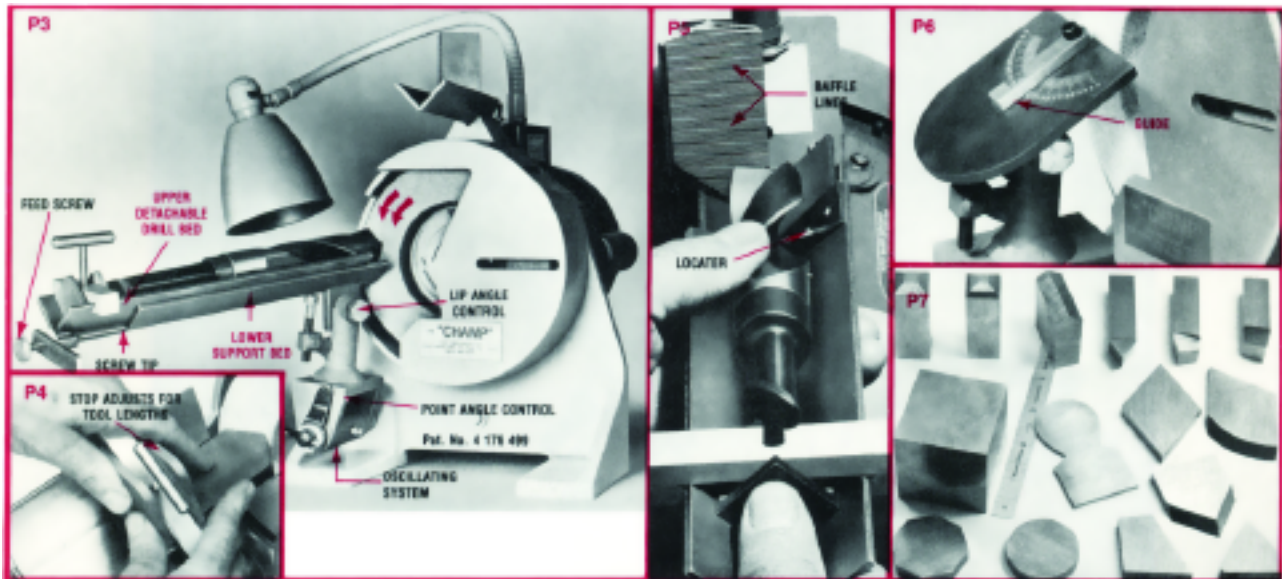
P2 - Locator's inclined plane is engaging TRAILING EDGE which isn't exposed to wear of the leading edge side, resulting in more reliable indexing and 180 degree opposite position. Wheel's downward force against the drill's face instantly TWISTS

and LOCKS trailing edge against locator's inclined plane. Thus, there's NO drill rotational movements. With bed's walls and adjustable back stop LOCKED behind drill's shank (P1), there is NO lateral, vertical, or longitudinal movements. Therefore, the wheel's FORCE SIMULTANEOUSLY grinds, POSITIONS, and IMMOBILIZES the drill. NO collets!! NO chucks!! NO clamps!!

THE "CHAMP" IS THE UTMOST IN SIMPLICITY, TOTALLY "NEW" AND "REVOLUTIONARY"

THE "CHAMP"

is the world's only machine that grinds a **"Positive Notched, Modified Split Point (PN,MSP)"**. The **"PN, MSP"** is the world's most productive drill, producing 500 percent more holes than the conventional split point drill as confirmed in a written testimonial by a reputable firm.



P3. LOWER SUPPORT BED is adjustable and LOCKS for lip clearance and drill point angles and supports the UPPER DETACHABLE DRILL BED. The SCREW TIP is an adjustable LOCKING stop and backing it off from rear edge of lower bed a given amount permits drill to slide forward to the wheel for an equal amount of metal removal. As the drill is ground, SCREW TIP establishes lower bed contact and further grinding ceases. Angular and feed screw settings remain LOCKED and UNDISTURBED to grind both sides of the drill point, resulting in a PERFECT point; dead on CENTER with IDENTICAL point and lip clearance angles and cutting lip dimensions. Inaccuracy is virtually IMMEASURABLE. The "CHAMP'S" mightiest and a most accurate KNOCKOUT punch.

Drill grinding is FAST and SIMPLE: INDEX the drill and select point and lip angle settings: Additional drills ground at same angle settings require ONLY drill Indexing. That's a mighty fast KNOCKOUT by the "CHAMP"!

THE OSCILLATING SYSTEM (P3) allows operator to sweep the drill across the grinding rim, allowing finer finish; faster and cooler grinding action; no wheel grooving; less heat, glazing and loading, and constitutes automatic wheel dressing, increasing diamond dresser and wheel life. Another KNOCKOUT by the "CHAMP"!!

P4. A rapid step interchanges to Spade and Track Bit Attachment. Capacity up to 4" dia. Dual Bed Concept assures accuracy exceeding new bits. Requires only simple rapid angulation settings and 10 second step of adjusting back stop to tool's length.

P5. The Drill Indexing Gauge: An exact amount of drill point extension is a MUST! With overextension, the drill is ground with excessive lip clearance and vice versa with under extension. Mathematically, each drill size calls for its own specific extension, and a fast and slow helix on the same size drill also has different extension requirements. With the "CHAMP'S" gauge, OPTIMUM extension is AUTOMATICALLY accomplished when the cutting lip spirals into parallel alignment with its adjacent baffle line. This AUTOMATICALLY and REPETITIOUSLY places the drill point's facial surface into the same parallel relationship to the wheel's surface each time its reground, preventing repetitious time consuming wasteful metal removal that results in a phenomenal increase in wheel and drill life plus time saved by the operator. A major KNOCKOUT by the "CHAMP".

P6. The versatile Angular Tool Table. It tilts up or down and the guide adjusts to either left or right scales ranging from 90 degrees to 20 degrees on either side. The table's sweeping action across the wheel's grinding rim prevents wheel grooving and grinds a workpiece 4 x 4 inches square. The guide is removable and Table can be locked for free hand grinding.

P7. Few of many shapes the "CHAMP" KNOCKS OUT! The 2" cube proves the "CHAMP'S" powerful punch even over largest of pedestal grinders. And the "CHAMP" is a fraction of the cost, weight and horsepower. Also, faster with its higher wheel speed. TWO incomparable machines at the low cost of 1. A DOUBLE knockout!!

INVENTED, DESIGNED AND PRODUCED BY A CRAFTSMAN FOR THE CRAFTSMEN.

www.newmantools.com tel 1-800-465-1384 fax 1-800-605-2442

THE "CHAMP" IS THE WORLD'S ONLY MACHINE TO COMBINE THESE FEATURES. DEMONSTRATED AT MACHINE & TOOL SHOWS IN THE U.S., CANADA, & MEXICO.

- 1. SPEED:** The CHAMP grinds a 2" dia. drill in LESS than 2 minutes!!
- 2. DRILL CAPACITY:** No. 60 to 3" diameter, tapered or straight shank, 2, 3, or 4 flutes!!
- 3. ACCURACY:** Actually EXCEEDS new drills - Due to the infallible DUAL BED CONCEPT!!
- 4. Versatility:** Interchangeable adaptors allow grinding split points! Dubbed Drills, Left Hand Drills, Spade Bits, Track Bits, Tool Bits, Thread Cutting Bits, Inserts, Punches, Dies and other cutting tools.
- 5. PORTABILITY:** Operates UNATTACHED even on distorted surfaces - due to 3 legged support , dynamically balanced motor, and balanced wheel due to ability to dress both wheel face and side grinding rim!
- 6. SIMPLICITY:** The natural result of RADICAL CONCEPTS and SENSIBLE engineering. Drill sharpening is FAST and FOOL-PROOF!! Only THREE rapid set-up steps!!!
- 7. LOW COST:** The natural result of SIMPLICITY!!!
 - Standard alundum, silicon carbide and diamond wheels are interchangeable. Removing the wheel cover requires no tools and changing wheels doesn't disturb drill grinding mechanism!!
 - Unlimited cutting edge clearance and drill point angle range.
 - Nickel plated steel components - ILLUSTRATED manual - Single or three phase motors!!

The "CHAMP" knocks out these multifaceted points which are far more productive and durable than conventional points. READ about these points In 6/82 issue of modern Machine Shop and 5/82 issue of "Blue Book".

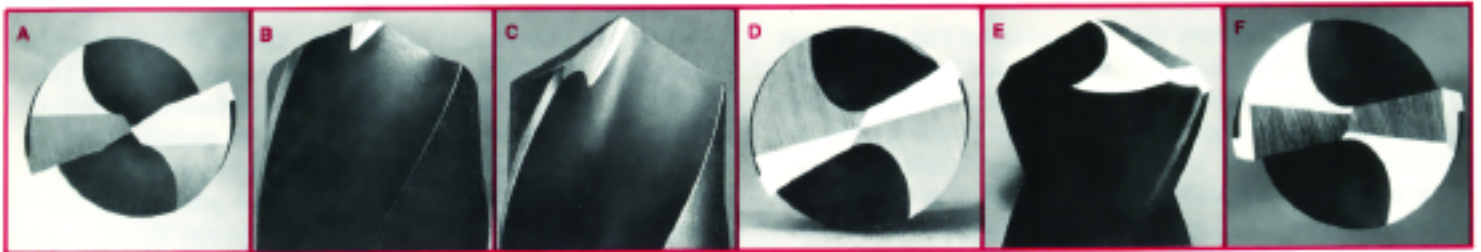


Fig. A: The MODIFIED SPLIT POINT (MSP). Note that practically all of the chisel is converted into secondary cutting edges (SCE) However, the "CHAMP" grinds these edges with a positive rake (Fig. B). Also, note that SCE gradually into the primary cutting edges, eliminating the acute angled vulnerable corners of the conventional split point (CSP). As a result, the MSP can be used on the largest of drills as well.

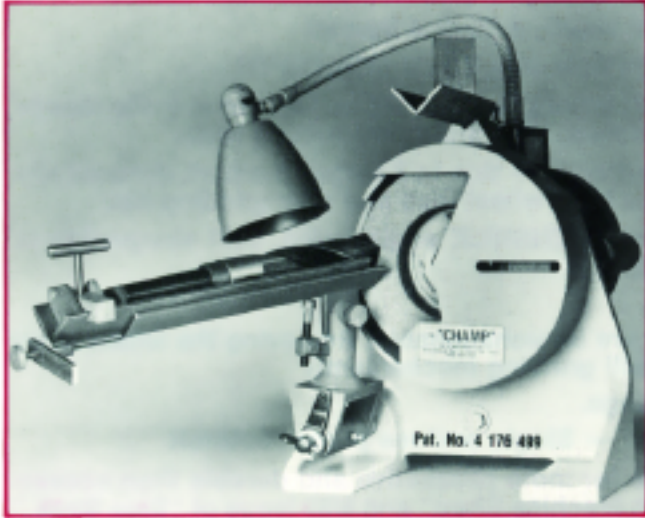
In Fig. B, the notch being parallel to the drill's spiral is self cleansing, permitting chips to flow freely up the flute. The opposite (invisible) notch is angled in the opposite direction, meaning that the web's center thickness is NOT compromised, allowing MAXIMUM reduction of the chisel's length down to .005. A minimal chisel (Fig. A) with maximum strength withstands higher crushing forces, permits outstanding extruding properties, increased drilling efficiency, increased tool life and self centering action which eliminates pilot holes. Combined with secondary cutting edges that extend to within .005" to .010" of the point's center, the MSP is one of the world's most productive twist drills. And unlike the CSP, grinding the MSP, requires far less skill.

Fig. C: The DUBBED DRILL. Cutting edges on twist drills have maximum positive rake (pitch) on the flute surfaces in the O.D. area, diminishing rapidly to neutral or slightly negative in approaching the web's center. As a result, cutting action diminishes accordingly. However, note that the dubbed (ground) surface adjacent to the central area of the web is converted to increased positive rake, thereby producing increased positive cutting action in the central area where it's needed most of all, subjected to the least amount of rotary travel. A dubbed drill also produces a shorter chisel having all the features of the MSP plus the following: Uniform positive rake across the full length of the cutting edges which drastically reduces stress in the O.D. area, thereby reducing corner break down: Equalizing the uneven thicknesses of the lands thereby producing greater hole accuracy: smoothing out uneven or rough flute surfaces which results in extended cutting edge life. And since the "CHAMP" grinds either negative or positive rake angles, the dubbed drill becomes even more superior, drilling most materials such as thin plexiglas, brass, stainless steel, econil and titanium, dubbing dramatically increases chip breaking properties and grinding the dubbed drill requires even less skill than grinding the MSP. The DUBBED drill and MSP are the "CHAMP'S" latest and GREATEST of all KNOCKOUTS. (Request a free copy of our "Drill Point Geometry").

Fig. D: SELF-CENTERING POINT. The MOST accurate of all points; ideal for NC operations and matched holes in dies. The apex across the chisel's center TOTALLY eliminates drill walking and center punching. When drilling with four faceted and a conventional point of the same diameters, the four faceted point REDUCES thrust by at least 80 percent. Note that the FAN shaped primary facets offer increased body at the outer corners for greater strength. And the "CHAMP" is the world's ONLY machine that grinds self centering drills up to 3" diameter.

Acute angled outer lip corners are the weakest and first area of the drill to break down and secondary point angles (SPA) reduce and strengthen those corners (Fig. E). SPA also produces secondary cutting lips with a back angle that cuts metal with a slicing action (Fig. F), reducing drag, binding and torque. This point lasts 3 to 5 times longer than conventional points and is unequalled for tubular materials, burrless holes and abrasive materials.

THE "CHAMP" OPERATES FULL TIME AT MACHINE AND TOOL SHOWS TO SUBSTANTIATE OUR CLAIMS!



The "CHAMP'S" safety features exceed the American National Standard Safety Code. The motor is top quality, totally enclosed, fan cooled, STANDARD "C" flange type & has a warranty with your local branch of W.W. Grainger. Standard components are used to maximum extent. PLANNED obsolescence is a CRIMINAL waste of PRECIOUS energy & materials. *Invented, designed and produced by a craftsman for the craftsmen.*

The WORLD'S LIGHT WEIGHT "CHAMP"! Ready for action at the DRILLING SITE: In the shop or IN THE FIELD!! Saves space, walking distance, TIME & MONEY!! What is your cost of drills going into the trash barrel? With DULL drills, what is your PRODUCTIVITY & MONETARY loss?? Should you buy a complex, costly machine that shop personnel WON'T use, or this simple machine that personnel WILL use??

A few of the many organizations that purchased the "CHAMP" - General Electric, Gulf Oil, Graco Corp. TRW, Eaton Corp., Rockwell Int., Eastman Kodak, Florida Light & Power Co., Abex, Chromalloy, Amtrak, ASARCO, Union Pacific, U.S. Military Services, Conrail, Edelbrock, Georgia Pacific, Hines Lumber, Square D and many others.

A typical response from satisfied customers:

"Attention: Mr. Joe Mazoff, General Manager"

"I want to thank you for your invention - "The Champ" drill grinder. In my opinion, it is the perfect tool for the job. I have used your drill grinder to sharpen as small as a #51 and large as a 1-23/64" drill. To my amazement, it gave accurate, repeatable drill points in every case. It produces equal or better results than any other grinder I have used; is incredibly fast, and easy to use. It's so simple that I can teach even the greenest trainee to produce perfect drill points every time."

"If you had created "The Champ" with only the ability to sharpen drills, it would have been sufficient; however, to its long list of attributes, you added the tool grinding attachment with which I can now accurately sharpen or shape all of my carbide and high speed steel tools."

"Thanks again for solving my drill and tool sharpening problem. You have my deepest respect for designing a simple tool to do a difficult job and building it rugged enough to last."

Good Luck and God Bless You,

Howard Hilborn

HH:rw
Therm-Art Company
2861 Westside Dr.
Pasadena, TX 77520
713/944-3713

Other responses:

"Drills sharpened on the CHAMP are lasting 3 times longer than our left hand drills that we have to send to a professional sharpening service."

"We are saving over \$16,000 a month on reaming and tapping operations due to the accurate drills sharpened on the "CHAMP."

"Drilling with 2 1/2" diameter drills sharpened by the CHAMP, oversized holes did not exceed .002."

"I always dreaded taking on a job that called for drilling econil until we purchased your machine."

And a letter dated May 31, 1980 from Gary, Indiana stated in part. "With your machine, we are able to drill faster and five times more holes per grind. Considering the machine's price and cost of sending out the drills, the machine has paid for itself in less than two months."

LOW IN COST, but with grinding precision meeting the most rigid requirements; the "CHAMP" is ideal for all shops, large or small. Combined with foolproof simplicity and sharpening speed, it is economical to resharpen the smallest drills; unskilled employees require little training in its operation; and skilled employees spend less time away from more productive operations. Unequaled in features, unequaled in price.

Newman Tools Inc.
185 Iber Rd.
Ottawa, Ontario, Canada K2S 1E7
Tel 613-836-6776 Fax 613-836-9070