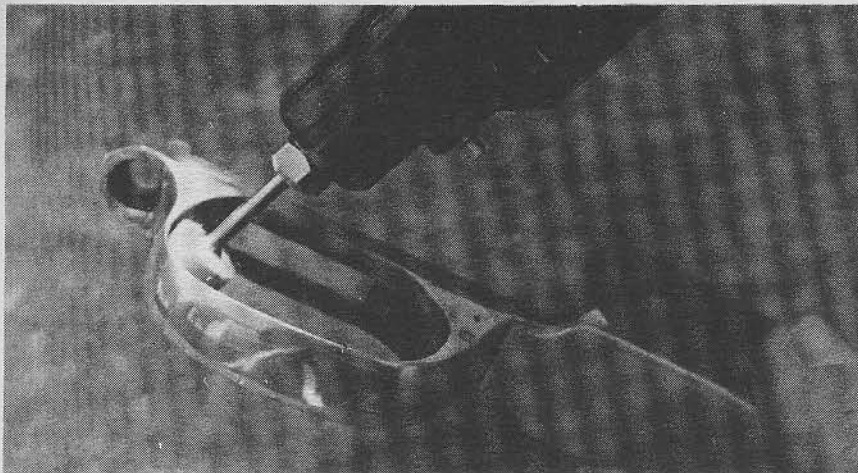


Chapter 6

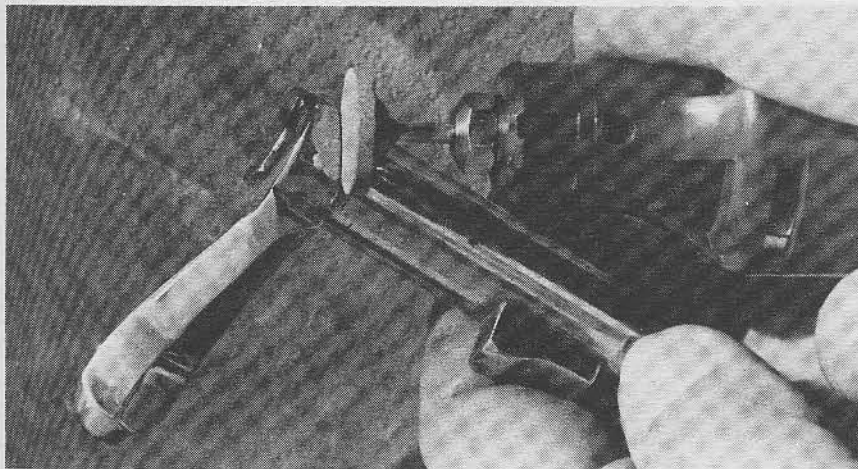
TINY TOOLS FOR GUNSMITHS

*The Dremel Moto-Tool Does Dozens Of
Jobs In Minutes — Not Hours!*





Using the Dremel Moto-Tool, the inner surfaces of a trigger guard can be polished quickly and efficiently. If reshaping is required, this can be done best with use of sander, buffer.



Newly welded custom bolt handles are smoothed up easily, when polished with minute stones at 30,000 rpm.

MOST GUNSMITHS, whether professionals or neophytes will concede that the bench vise is the most used piece of equipment in their shops. Though the bench vise is invaluable, it also can ruin fine guns or such articles as gunstocks, unless the steel jaws are padded with removable cork, lead or brass jaw plates to prevent marring surfaces being worked on.

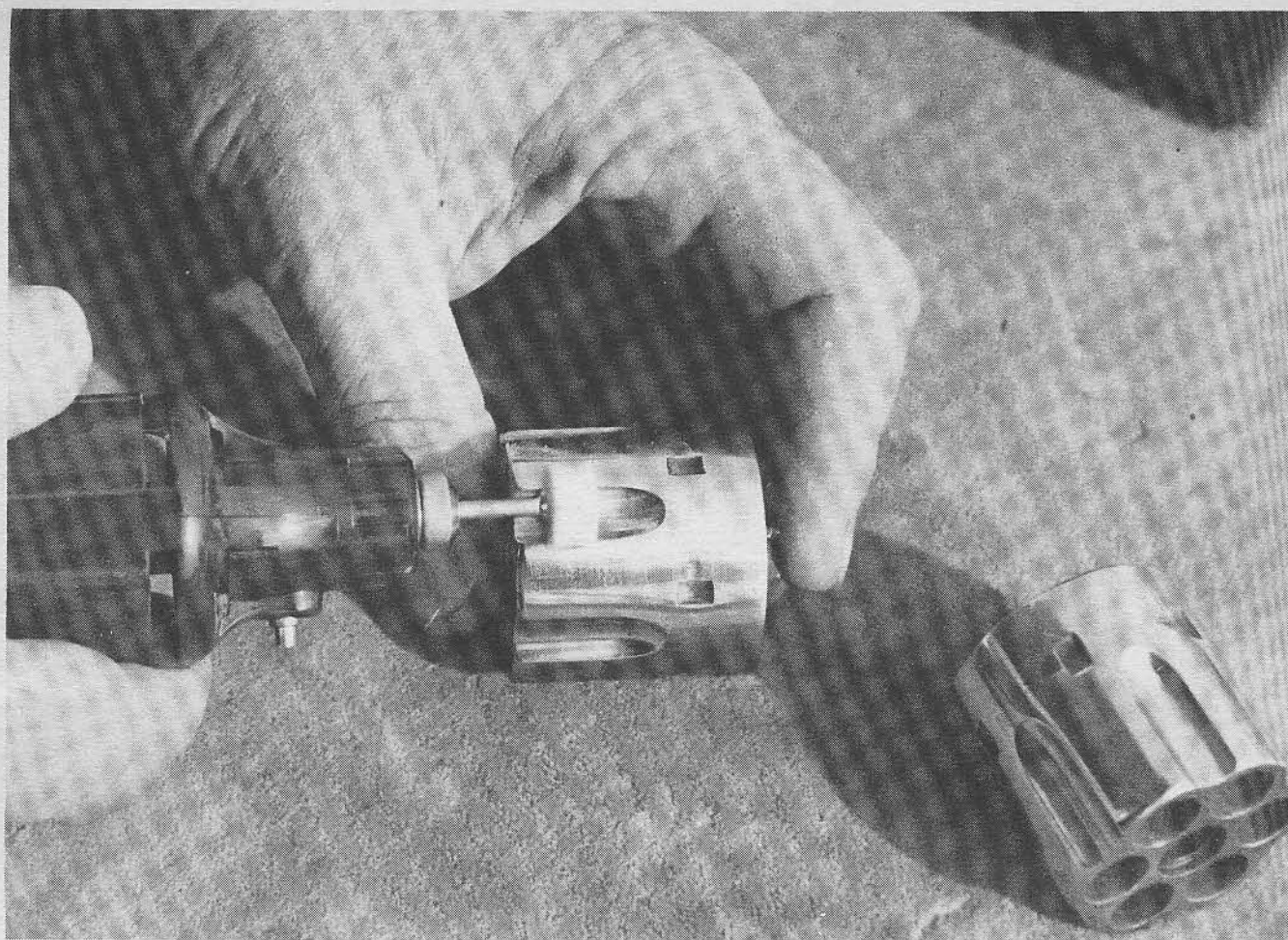
Running second to the bench vise possibly would be the drill press and the lathe as those used most.

But, the vise, doing its thing of holding various gun components between its hardened steel jaws, contributes little else. Each gun component, whether lock, stock or barrel is placed in the vise jaws for the sole purpose of having work done on it. This can include file-fitting, smoothing up, minor or major alterations such as grinding, polishing, routing, deburring, shaping or carving and the million and one other little chores that go into building or customizing any rifle, pistol or shotgun.

With the gun part clamped in the vise jaws, the next consideration is the proper tools to use in finishing the job in a precise manner. It may be a series of hand-held files, crocus cloth or emery paper, a hacksaw or some abrasive substance needed to remove the tough case-hardening. Or the part may need only minor honing.

About thirty-five years ago, I purchased a small, compact electric hand unit known as the Dremel Moto-Tool. In the years that have followed, this little gem has paid for itself over and over again in time saved and the precision work it has performed on rifles, pistols and shotguns that passed through my shop for everything from major rebuilding and customization down to minor repairs. I found that there was little this tiny tool couldn't do in most phases of general gun work, providing the proper accessories were used. Proving that the makers don't believe in fooling with success, the design has changed little over the years.

My original unit is now in worn condition and is using its umpteenth set of replacement armature brushes. Feeling



that it was time to retire this aged work horse, I purchased a new Model 280 (Model 281 in kit form) Dremel Moto-Tool. This unit churns up 30,000 revs per minute, weighs only eleven ounces and its powerful motor won't stall until loaded to sixteen ounce-inches of torque! The complete hand tool, with fitted case, contains twenty-three useful accessories and operates on 110-volt current.

While the Dremel tool is not intended for the heavy cutting, polishing or routing applicable to heavier bench-mounted equipment, it still will prove its worth to the gun mechanic on such precision chores as final stock and action bedding, bolt and trigger alterations, precision grinding on small parts and in removing case-hardening from rifle receivers prior to drilling for scope mounts. It also is used for such precise work as opening up guide rails in rifle receivers to accept larger magnum cartridges, inlay work, trigger guard polishing and reshaping, honing and action polishing and carving. But for all-around precision workmanship, the operator must understand its capabilities and limitations.

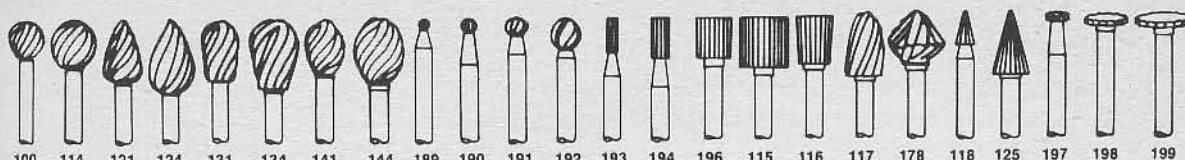
Available for this tool are various sizes and shapes of emery and abrasive wheels, cut-off wheels, engraving cutters, steel burrs, felt and cloth buffing and polishing wheels, mandrels, drum sanders, rotary brushes in both wire and bristle, emery points, rubberized polishing and honing wheels, steel saws, carbide cutters in five shapes and various other accessories. All are invaluable in general gun craftsmanship.

Above: Polishing flutes in a revolver cylinder is done easily with a small felt buffer that is furnished with the kit. (Below) With the aid of the small wire wheel, rust is removed from sights, trigger assemblies, chambers.



High Speed Cutters

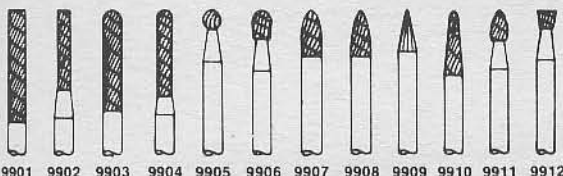
Made of high quality steel. All have $\frac{1}{8}$ " shanks. Can be used for shaping, hollowing most metals, plastics and woods.



Do not run accessories in excess of 30,000 RPM

Tungsten Carbide Cutters

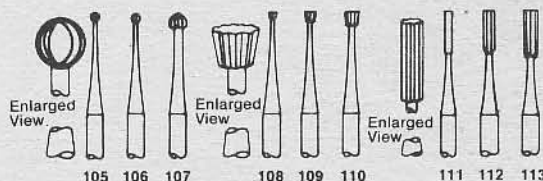
Carbide cutters outlast high speed cutters many times over. $\frac{1}{8}$ " shanks with maximum cutting head of $\frac{1}{8}$ ".



Do not run accessories in excess of 30,000 RPM

Small Engraving Cutters

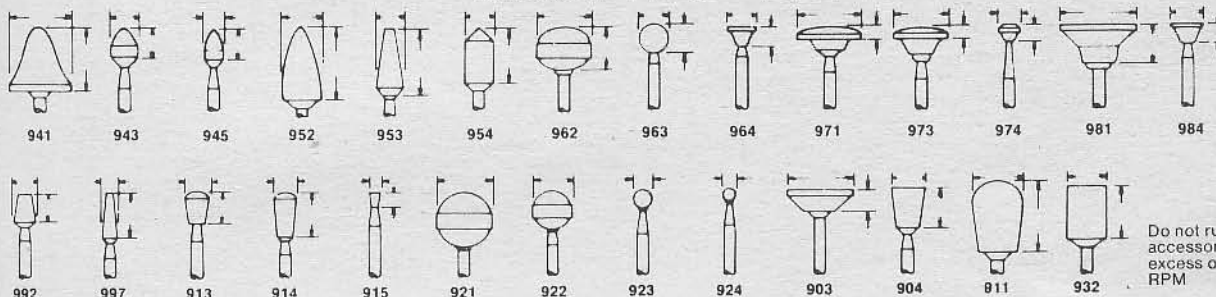
Ideal for engraving, carving, routing in wood, fiber, plastic and soft metals — everything except hardened materials. $\frac{3}{32}$ " shanks only.



Do not run accessories in excess of 30,000 RPM

Mounted Aluminum Oxide Wheel Points

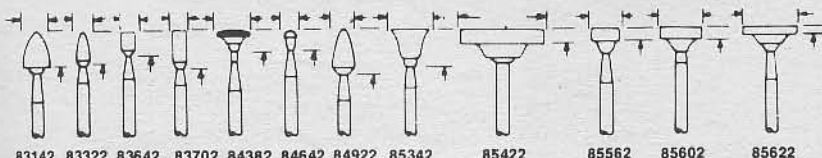
Highest industrial quality with long abrasive life. $\frac{1}{8}$ " shanks. Ideal for sharpening, deburring and general purpose grinding.



Do not run accessories in excess of 30,000 RPM

Silicon Grinding Points

Made especially for grinding on hard steel, ceramics, glass and other hard materials. $\frac{1}{8}$ " shanks.

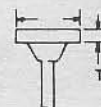


Do not run accessories in excess of 30,000 RPM

Plain Shaped Aluminum Oxide Wheel Points

Ideal for sharpening, deburring and general purpose grinding. All have $\frac{1}{8}$ " shanks.

No.	Dia.	Thickness	No.	Dia.	Thickness
8153	3/16"	3/8"	8175	3/8"	3/8"
8160	1/4"	1/4"	8184	1/2"	3/8"
8162	1/4"	3/8"	8193	5/8"	3/8"
8163	1/4"	1/2"	8200	3/4"	1/8"
8173	3/8"	1/8"	8202	3/4"	3/8"
8174	3/8"	1/4"	8215	1"	1/8"



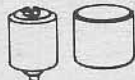
Do not run accessories in excess of 30,000 RPM

Sanding Accessories

Drum Sander
No. 407

Drum Sander
Bands No. 408,
No. 432

Sanding Discs, No. 411,
No. 412, No. 413



No. 407 Ideal for rough sanding wood and smoothing fiberglass. Sander bands are replaceable and available in 1/2" size. Comes with one band. 1/8" shank.

No. 408 1/2" dia. Coarse Grit Sander Band.

No. 432 1/2" dia. Fine Grit Sander Band.

No. 411 3/4" dia. Coarse Grit Sanding Discs (Use w/Mandrel No. 402).
No. 412 3/4" dia. Medium Grit Sanding Discs (Use w/Mandrel No. 402).
No. 413 3/4" dia. Fine Grit Sanding Discs (Use w/Mandrel No. 402).



No. 411 3/4" dia.

Brush Accessories

Wire Brushes



428



442

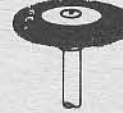


443

Nos. *428, *442, *443 Small, versatile steel brushes for efficiently removing rust and corrosion, polishing metal surfaces. 1/8" shanks.

*(Do not run in excess of 15,000 RPM)

Bristle Brushes



403



404



405

Nos. 403, 404, 405 For cleaning and polishing silverware, jewelry and metal surfaces. Ideal for hard to reach places. 1/8" shanks.

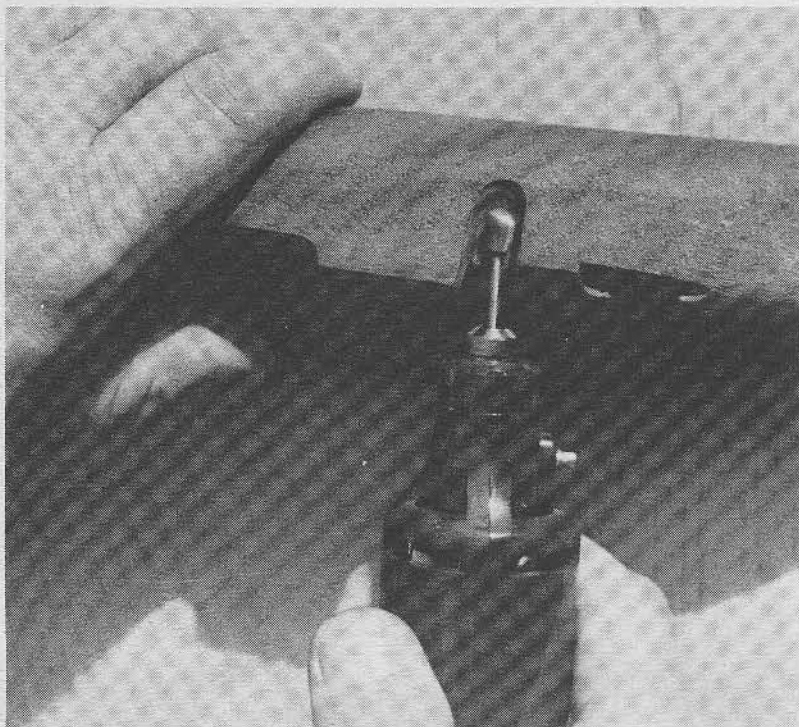
DREMEL ACCESSORIES

Interchangeable chuck collets ranging from 1/32- up to 1/8-inch are furnished with each kit. These collets will accept any cutting and abrasive tools designed for hand-held rotary tools such as the Dremel. All are of tool steel.

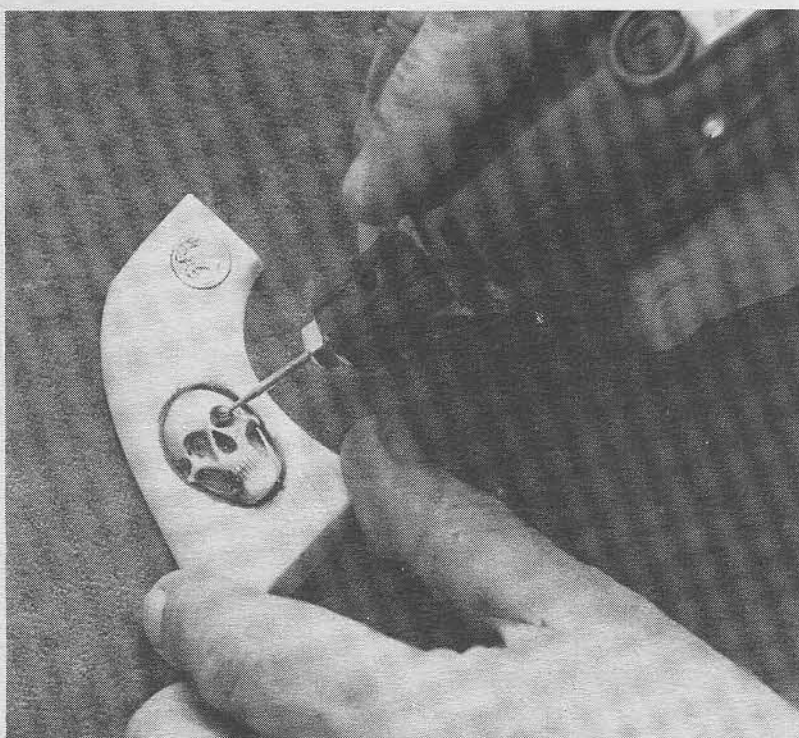
Some years ago, while building my first magnum conversion from a standard Model 98 Mauser action, I had the rifle almost finished. The bolt had been opened up to accept the larger head diameter of the magnum case, the stock was finished, except for checkering, and even the extractor had been reshaped accordingly.

The problem facing me was the exacting chore of opening up the guide rails in the receiver to allow smooth feeding of the larger cartridges into the chamber. Up to this point, I never had encountered a situation just like this. How and in what way was I to go about refacing these rails to assure that the cartridges would feed properly?

After due consideration, I chucked a rounded half-inch abrasive wheel into the tool's collet and went to work. I soon had the new rifle feeding belted magnum rounds as smooth as silk into the chamber of the rifle. This was the



Bolt handle slots and similar inletting jobs are done easily and quickly with steel burrs of the appropriate size and shape. The manufacturer offers a wide variety.



Ivory or rare wood pistol grips can be carved in a variety of patterns with the tiny steel burrs. Bish puts the finishing touches to a skull carved into the ivory.



Author has found that he can use this tool to fit grips to automatic, revolver frames, using circular emery discs.

first time I had used such a tool on what I consider a highly crucial bit of gun work. A sloppy or haphazard job could have turned the entire receiver into scrap iron!

Reshaping and polishing such components as trigger guards, bolt sleeves, flutes in revolver cylinders, altering rifle receivers to accept custom triggers with thumb safeties, broken screw removal, sight alterations and milling mortises in stocks for custom triggers are some of the uses I've found. Polishing and sharpening small tools, such as inletting chisels, and polishing in hard-to-get-at places prior to final bluing are within the capabilities of this type of tool. With its high speed motor and the correct acces-

sory chucked tightly in the collet, it is fully capable of working in places where it would be impossible to accomplish anything with hand-held, non-power tools.

I have bottomed out mortises to accept gold, silver or ivory inlays in stocks and to precision-fit forend tips and custom pistol grip caps, but to attempt removal of large quantities of steel, such as milling the ears off an Enfield rifle, would be fruitless. It could be done, possibly in a period of weeks or months, but such jobs as this are best left to heavy duty grinders or milling machines.

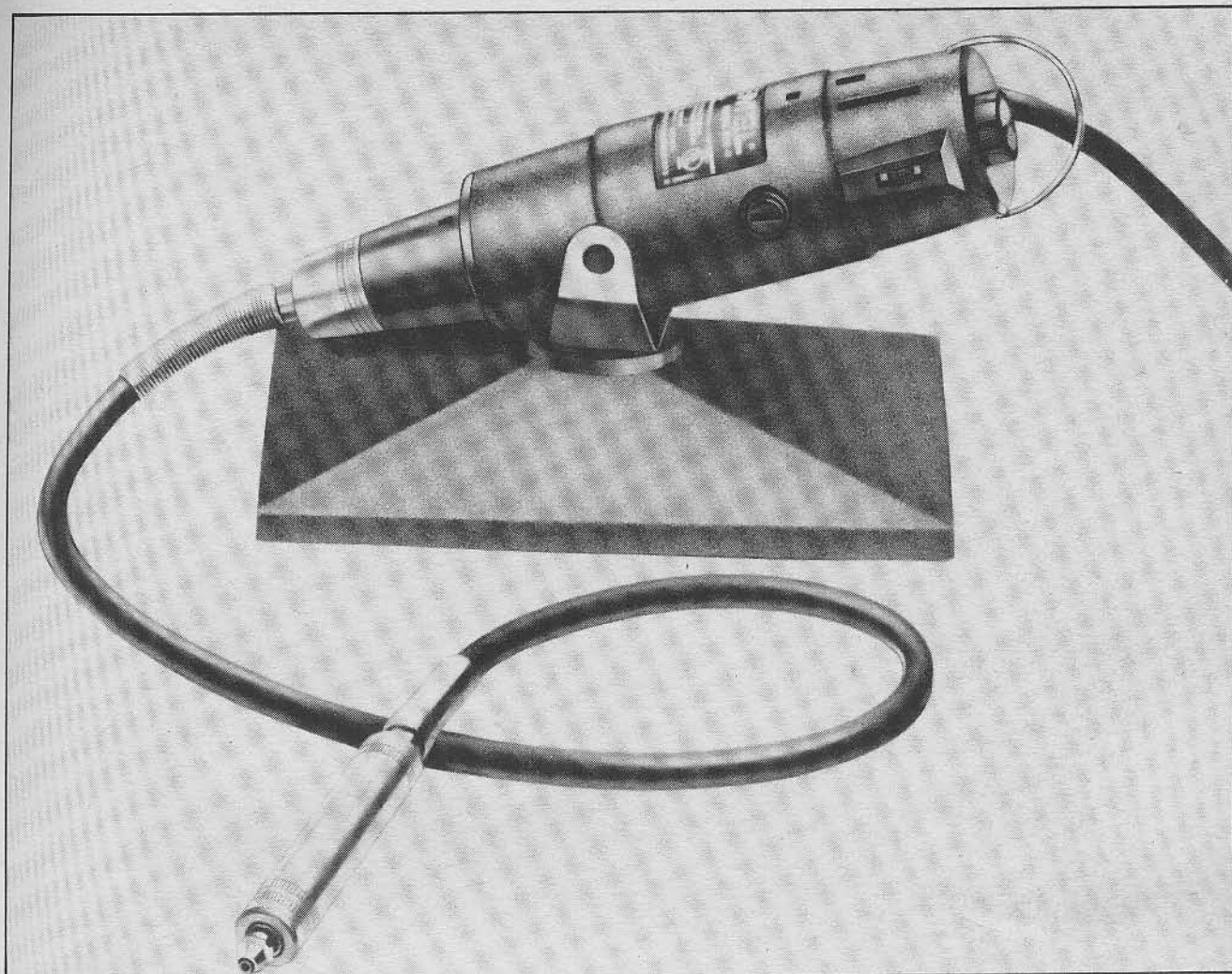
For those building replica antique firearms or repairing old originals, the tool can be invaluable for inletting com-



The author has used this particular unit for more than a dozen years for a variety of chores.

plicated mortises to accept both back action and bar-type locks. Building and restoring antique arms, from the match-lock on through the many and varied types of wheellocks, flintlocks and percussions requires such chores as inletting locks and triggers, cutting barrel key slots, inletting the sometimes complex designs in aged trigger guards and butt plates and repairing and smoothing up of the locks themselves.

On numerous occasions I have constructed, from both cold-rolled and tempered tool steel, complete flint and percussion locks for shooting replicas of antique rifles and pistols. Had it not been for such a tool, my work time on these guns would have been extended by many days, if not weeks, in cutting, milling and shaping parts as the hammers, frizzens, yokes and stirrups, side plates and other complicated parts.



The Motoflex Model 332 V.S. has undergone few changes over years. (Left) Current model has solid-state variable speed control as well as override power switch.