

A Candid Look at

By R. J. DE CRISTOFORO

Rockwell's Uniplane can almost shave the fuzz off a peach without harming the skin, yet it's rugged and versatile enough to give you a respectable finish across the end grain of a six-by-six piece of hard maple. One was delivered to my

shop for testing when the tool was first announced some months ago. Though it's an expensive tool—\$238 for the basic machine—I believe it's here to stay.

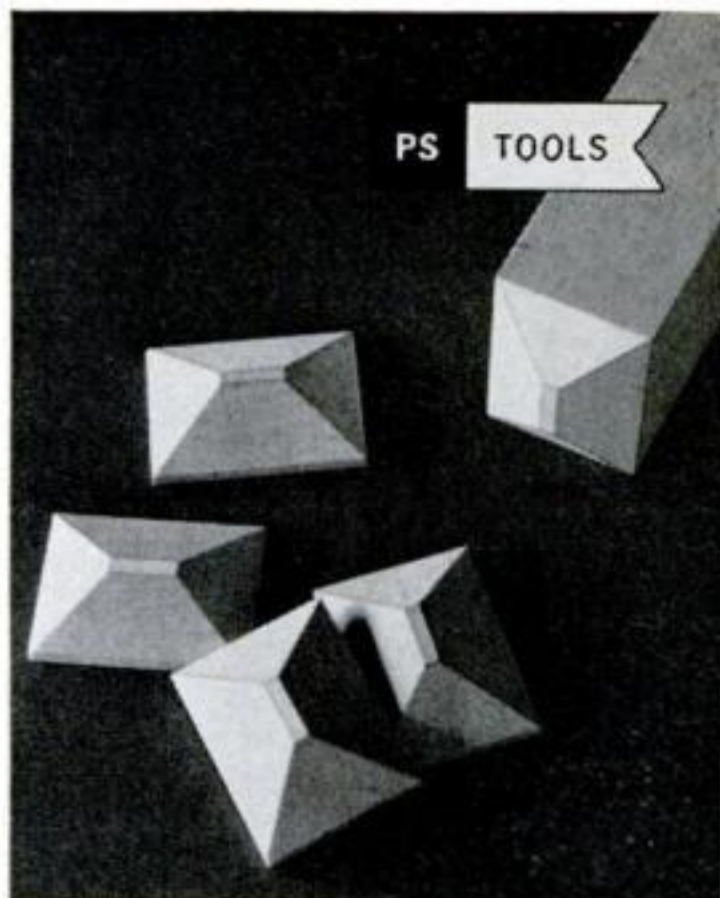
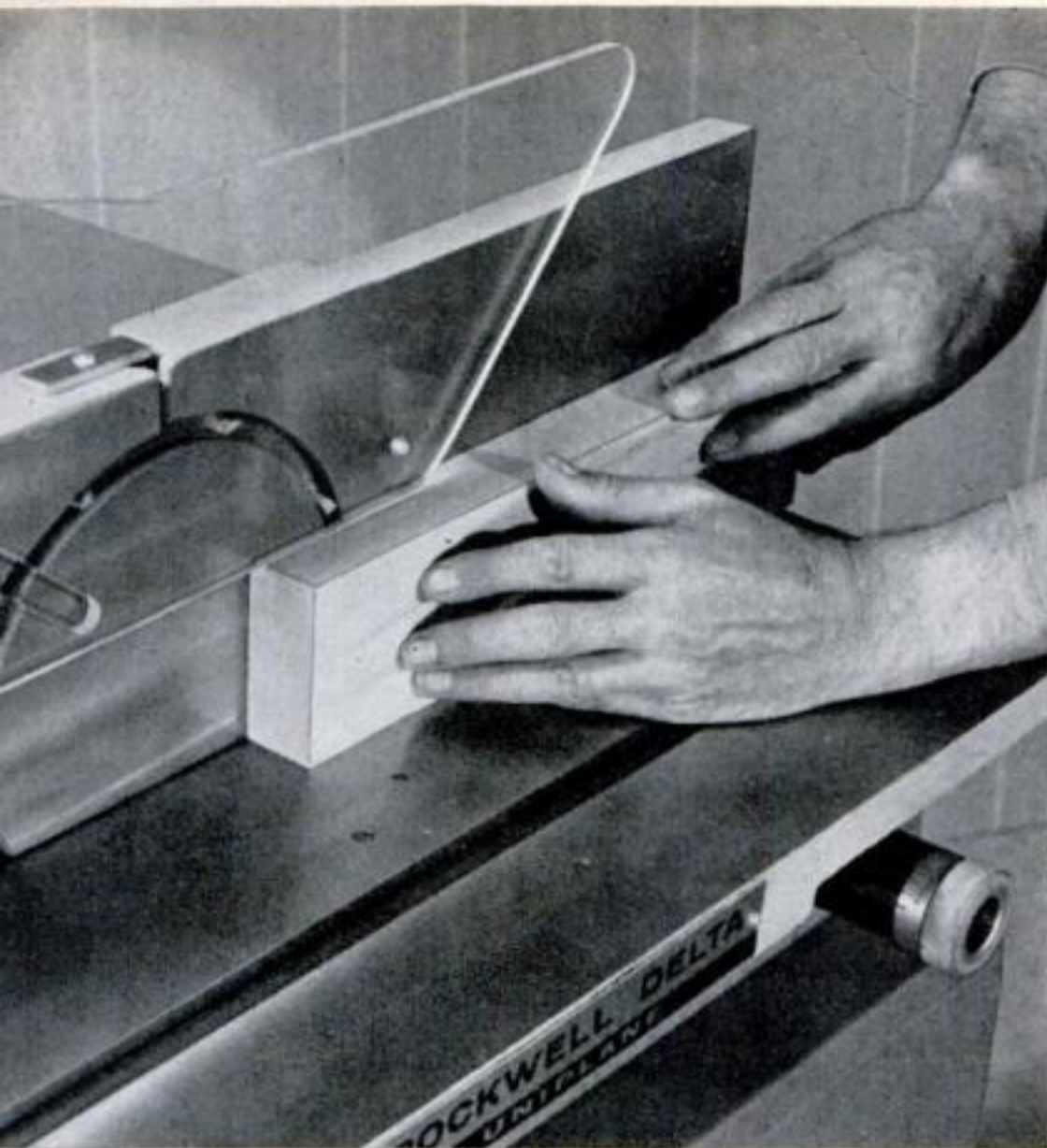
In essence, it's a highly sophisticated rotary planer mounted in a heavy-duty structure similar in appearance to a jointer. The comparison is inevitable and it is not farfetched to state that the new



Micrometer marked off in 64ths of an inch keeps backlash to minimum but still allows a little play.



Table tilts up to 45 degrees for chamfer and bevel jobs. For cuts beyond maximum, make repeat passes.



Uniplane's eight cutters revolve around outer rim of visible disk. Depth of cut is determined by location of infeed fence. Plastic cover provides safety (photos left). Tool cuts end grains so smooth you can shape end stock (photo above), cut off and glue pieces back to make faceted panels. Same technique produces molding.

DELTA'S UNIPLANE

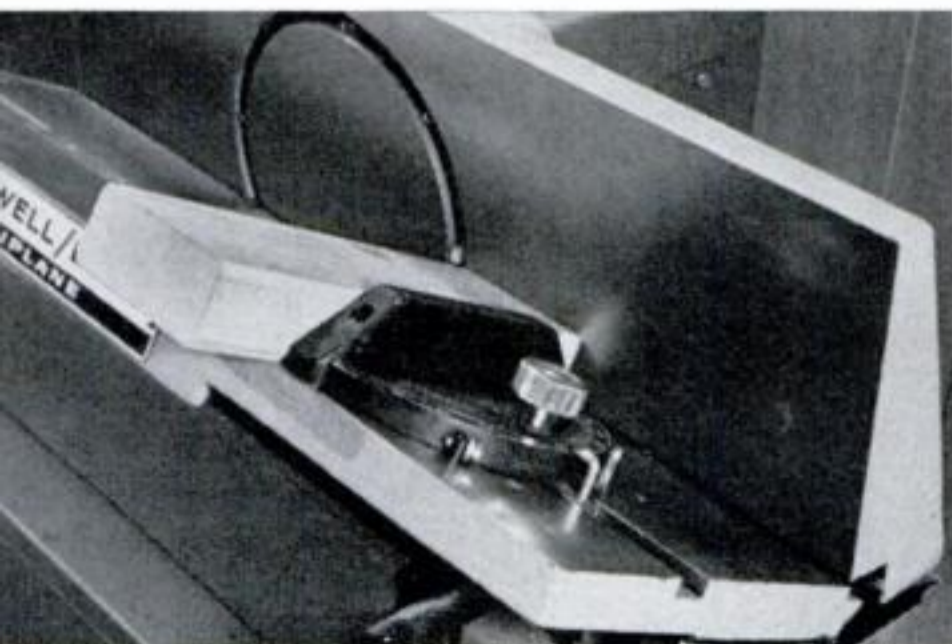
tool will *almost* make the other obsolete. The "almost" is necessary because some few jointer functions—rabbeting for one—are not done on the Uniplane. And speaking of functions, I found myself using the new tool for many jobs I used to do on a disk sander.

How does it work? The cutting action is on a vertical plane and it's so smooth

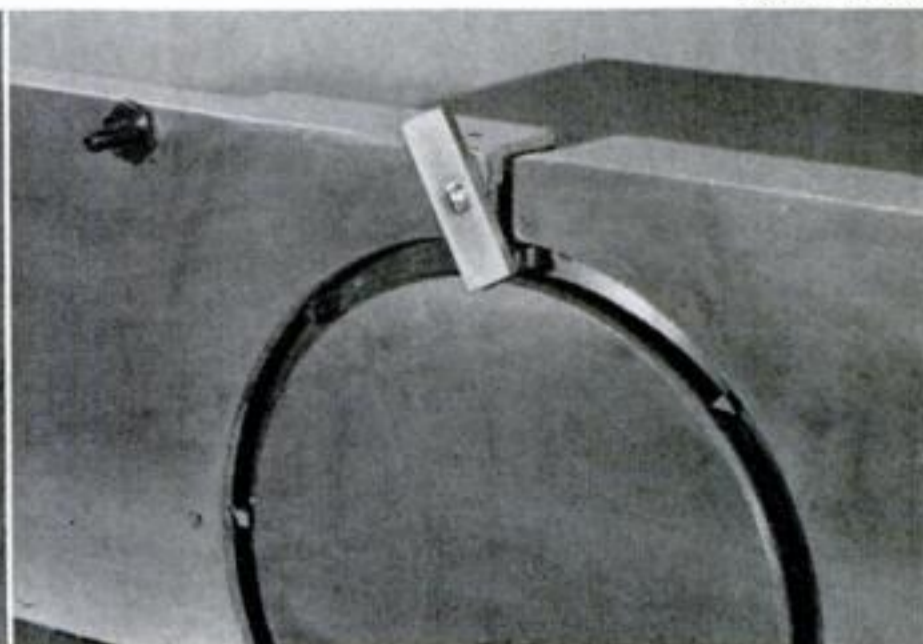
and fast—better than 30,000 cuts per minute—that very little pressure is required to feed the work or to keep it in contact with the fence. There is no tendency for the work to be kicked back or lifted—unlike a conventionally mounted cutter head.

The head is a heavy, balanced cast-iron disk better than eight inches in diameter. The disk mounts eight cutters, each finely

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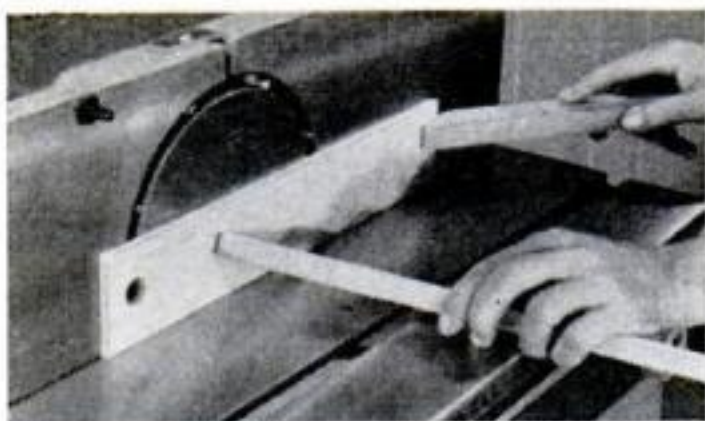


Miter and compound-angle cuts are play with Uniplane. You can rough-cut by hand, finish with power.

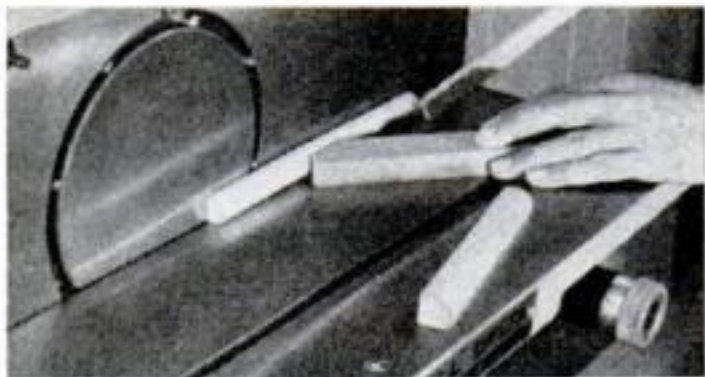


Gauge sets cutters accurately after sharpening. As each one contacts gauge, setscrew is tightened.

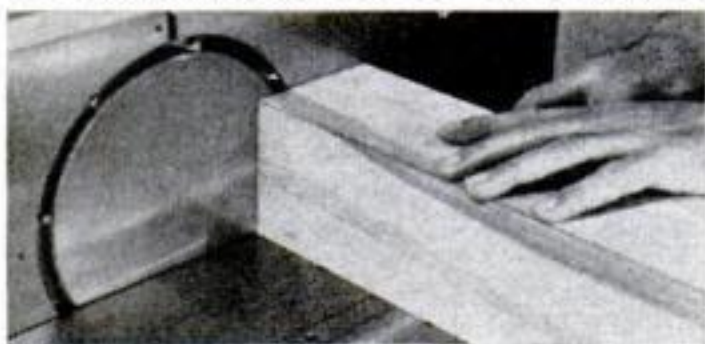
Jobs you can do with the Rockwell Uniplane



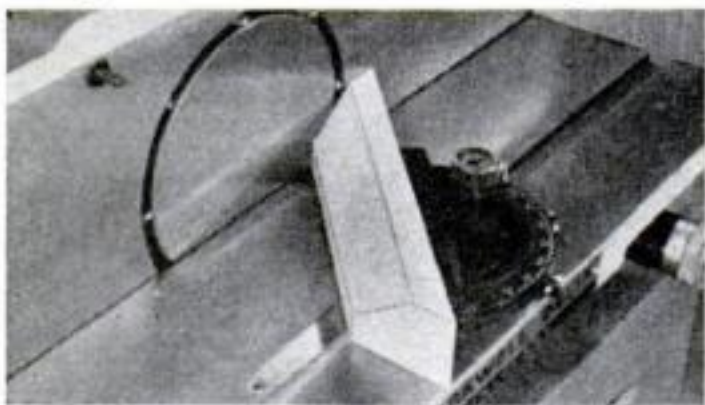
Safe, fast planing of thin stock is achieved by using push sticks both for feed and to hold piece against fences. Though removed here for photo, always use guard.



Cutting flats on small dowels is an easy chore for the Uniplane. A push stick to keep fingers away from cutters should be standard work practice on such jobs.



From small job to big, there's no noticeable difference in feed pressure. Should there be any feathering in heavy work, clamp wood slab to table as back-up block.



Fastest neat miter you'll ever cut—miter gauge is the secret. It adjusts quickly, stays where it's put. Gauge should be used for all end work including chamfering.



It does good plywood job, but use back-up block to prevent feathering and splintering when cutting cross-grain on veneer.

honed. The design and projection of the cutters account for the superb finish you get, provided you follow the essential rule of not rushing a job.

Four cutters are roughers, four are finishers, located alternately around the rim of the disk. It's like a double shave. The finish cutters, projecting .002 inch farther than the roughers, do the final touch-up work. To use the machine correctly you *must* make a pass that takes the work completely across the cutter-head area. On the up side of the disk the finish cutters alone are working. Don't expect the kind of chips you get from a conventional planing machine. The waste looks more like the dust from a coarse belt on a sanding machine. The depth of cut is set by moving the infeed fence in or out. The plastic guard does a fine job.

Cutter settings are important. A precision-ground steel gauge, provided with each tool for re-seating cutters after honing or grinding, makes an accurate job surprisingly simple. You simply push the cutters through the right openings in the cutterhead until they bear lightly against the gauge. Screws lock the cutters in place.

Maximum depth of cut is $\frac{1}{8}$ inch, but you'll be impressed mostly by how *little* you can remove. Shaving off $\frac{1}{64}$ inch, or even less for that matter, is a routine chore. Grain direction, in relation to the pass, has no effect on the finish you get; it's always smooth.

What you can do. Typical outstanding jobs are jointing, surfacing (to smooth rough stock or to reduce thickness), chamfering, beveling, tapering, finishing of simple or compound miters. If I were forced to select one particular application to point up the uniqueness of the Uniplane, I think I would choose the finishing of miters—simple or compound. You can make an approximate, rough cut by hand or by using a bandsaw, for example, and then finish the job on the Uniplane. It will be accurate and ready for assembly.

The tool is safe enough so you can feed a match-stick-size piece of wood across the cutters (with a push stick) as easily as you can feed a six-by-six. Even assuming an accident, the tool can't do near the damage that a jointer can.

Limitations. Depth of cut is more than adequate for the jobs this tool does best, but it imposes a limit on tenoning. Also, since a stopped pass is needed to accomplish a tenon, an arched shoulder remains and this requires further attention to square off. You can do a square-shoulder tenon on the end of round stock but, again, there's the $\frac{1}{8}$ -inch limitation. The machine is not designed to be used for rabbeting. 95