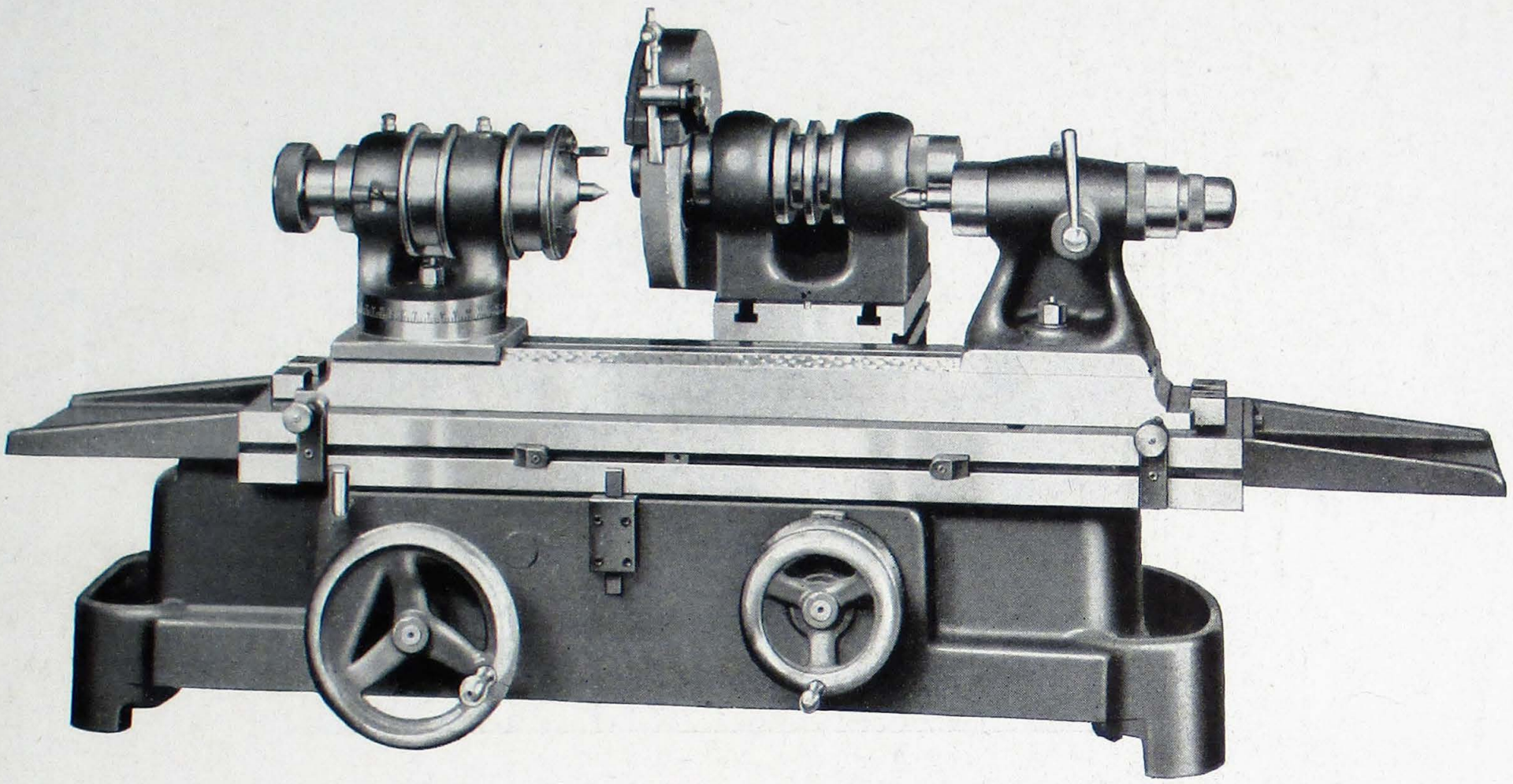
The Bench Grinder with Dial Indicator With Separate Motor V Belt Drive



A Semi-Universal grinder of as large size as is practicable in a bench machine.

Production—10" x 10½". Tools up to 1" collet capacity. Experimental work, 4 jaw chuck and collets; Work head swivels in 360 degree complete circle.

Wheel head aligns with key in plate; can be swiveled for side wheel grinding.

With 8" Diam. x 1" face wheel for heavy, fast grinding on commercial manufacturing purposes.

With double V belt drive to eliminate all vibration and noise; Delivery full 1½ h.p. to grinding wheels.

A large machine with as sensitive controls as the small size.

With Grinding wheel spindle of cone bearings of 2" diam.; work head, Cone bearing combination of 2¾" Diam.; 5"—4 jaw independent Chuck.

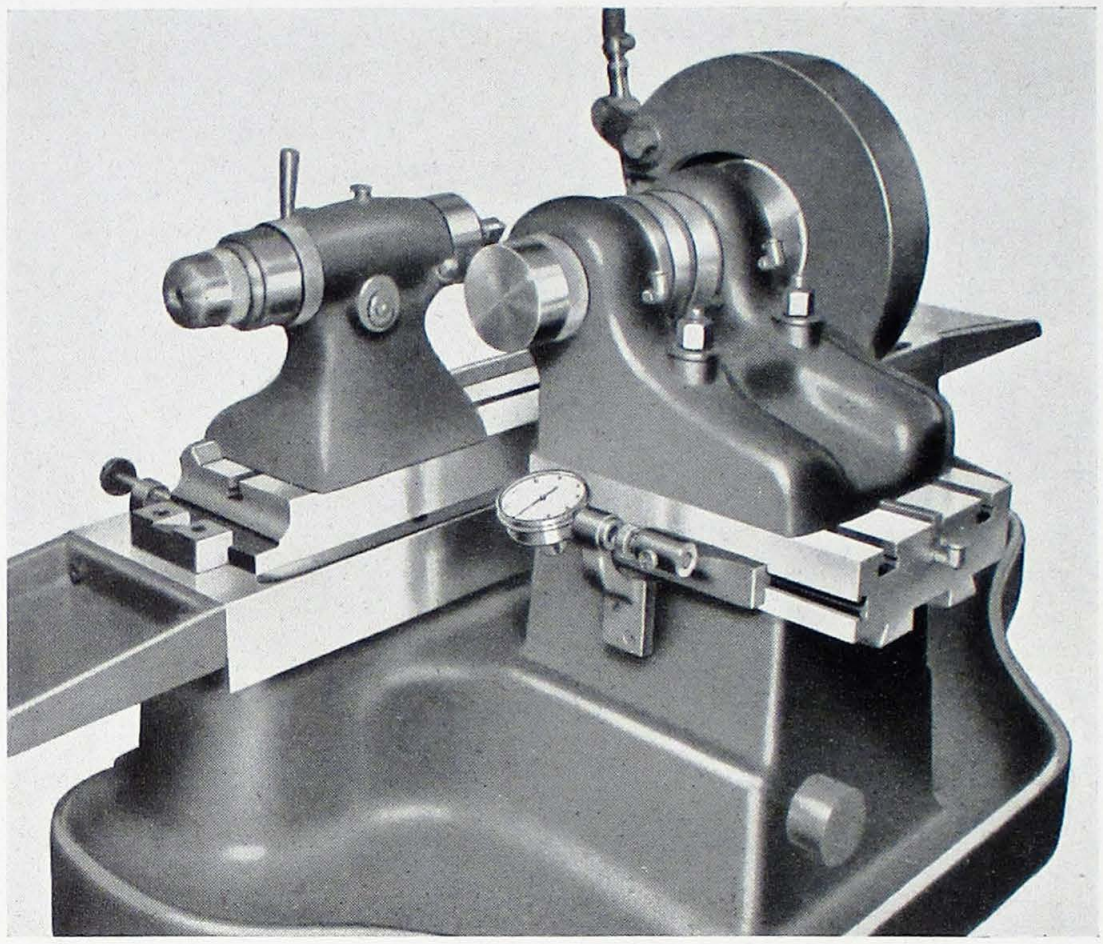
This machine will grind all your requirements.

CRYSTAL LAKE GRINDERS

NOT INCORPORATED

Manufacturers of Precision Grinders Since 1910

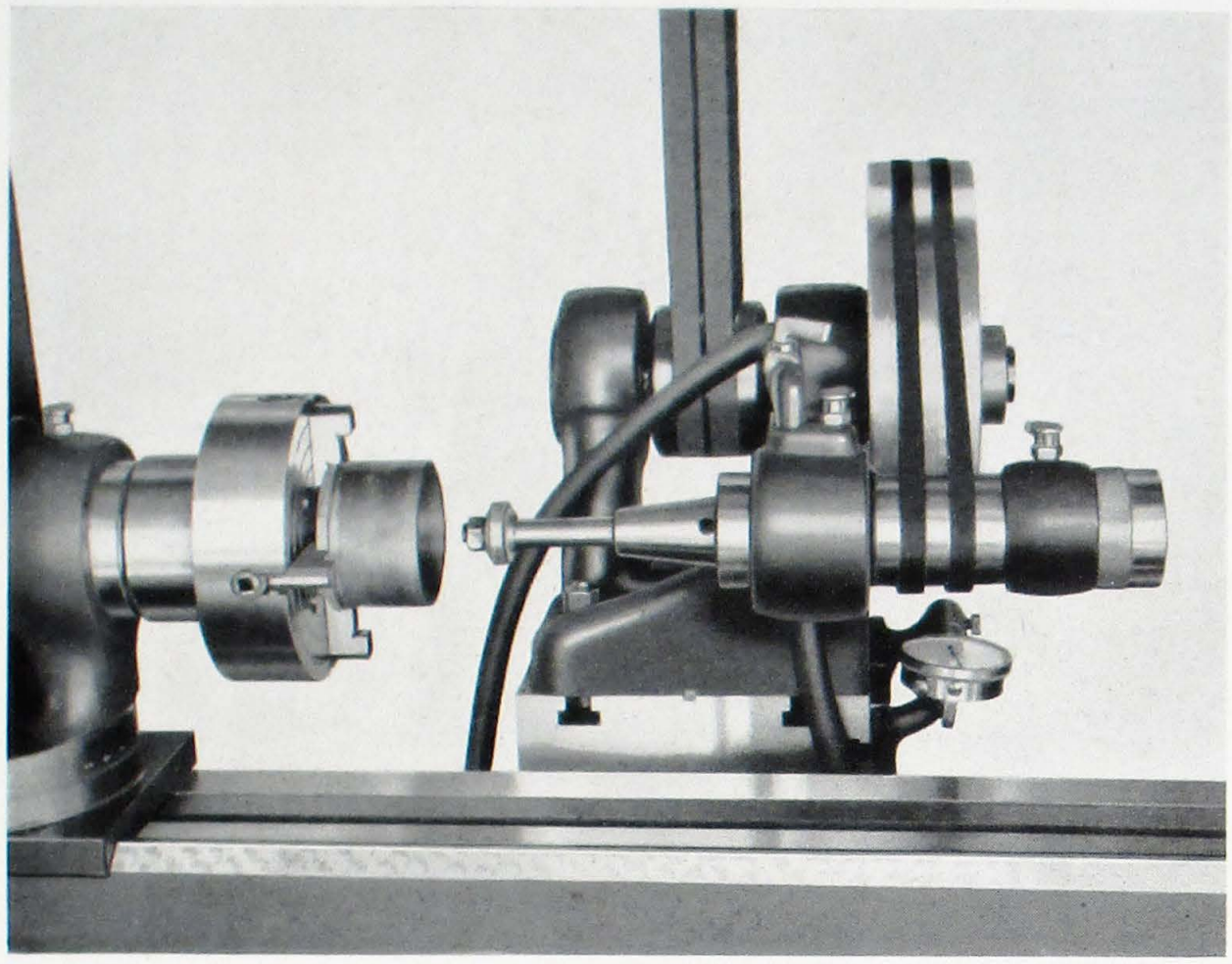
Crystal Lake, Illinois, U. S. A.



"Dial Indicator"

The Dial Indicator method of sizing has proven the most effective method known as no feel is necessary and women operators can size from .0001 to plus or minus 0, as well as gauge makers. Operator feeds grinding head into work till Dial Indicator reads zero and lets wheel spark out. Sizing can be repeated to unbelievable accuracy with this method.

Dial Indicator stop is held to slide by a friction in the tee slot making it impossible to damage indicator by sudden ramming or over-travel. After indicator has moved to predetermined depth the stop will slip in tee slot in contact with casting holding indicator.



Liquid Cooled Internal Grinder Attachment

For medium size work, 12,000 r.p.m.

The Internal Grinder is a 4 and 45 degree Plain, Ball and Roller bearing combination. The main work is done by the double taper plain bearing which is liquid cooled to take up excess heat. The belt pull and end thrust is taken by the ball and roller bearings.

The liquid is piped from coolant pump, the regular coolant being used, making only one pump necessary for external and internal grinding.

Arbors are held in spindle by a No. 5 B. & S. taper, making quick interchanging of arbors for different lengths and wheel sizes.

Drive is through ball bearing jack shaft by multiple V belts.

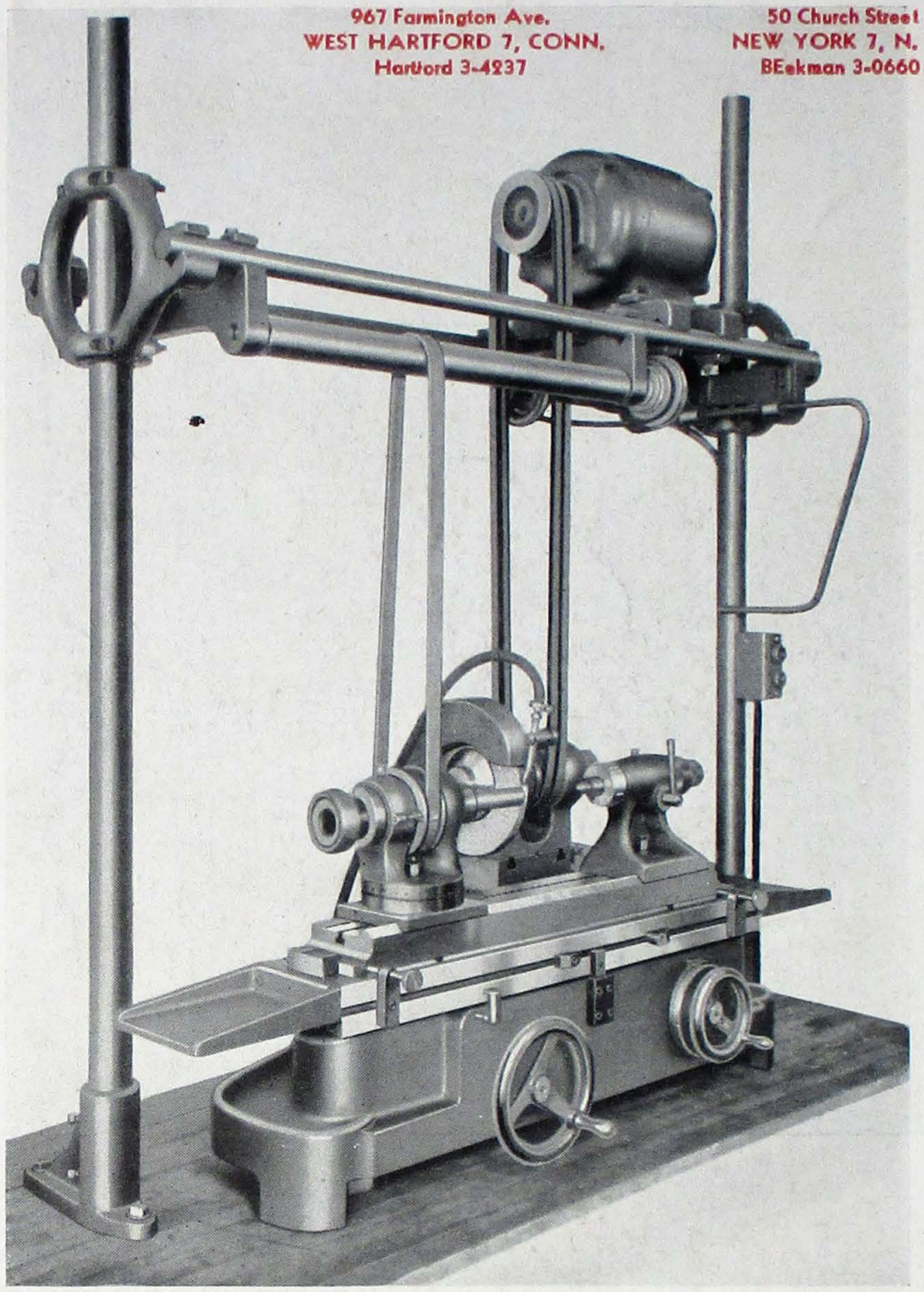
REPRESENTATIVES

ROBERT E. MORRIS COMPANY

967 Farmington Ave.
WEST HARTFORD 7, CONN.
Hartford 3-4237

50 Church Street
NEW YORK 7, N. Y.
BEekman 3-0660

238 Main Street
CAMBRIDGE 42, MASS.
ELiot 2184



Motor Drive As Illustrated Above

SPECIFICATIONS

WORK HEAD

Distance center to Platen ..... 5"
Swing over Platen ..... 5"
Between centers ..... 10½"
Hole through spindle ..... 1 3/16"
Colletts: Harding No. 5 C, capacity up to 1"
4 jaw chuck, will hold 5"
High speed steel center No. 5 Brown & Sharpe taper.
Length of Platen V and Flat design ..... 29¼"
Length of table ..... 32¼"
Length of table overall ..... 48½"
Motor Drive and four work speed changes.

DRIVE

Spindle speed ..... 2400 r.p.m.
Double V. belt drive.
5200 surface feet per minute with 8" wheel.
Wheels ½" to 1" thick, 8" Diam., 1¾" hole.
Spindle, double cone design 4° and 45°.
1½ h.p. Double shaft motor required. (Shaft extended on both ends.)

Weights net approximately 1000 lbs.

F.O.B. Crystal Lake Grinders Plant
Crystal Lake, Illinois, U.S.A.

Printed in U.S.A.