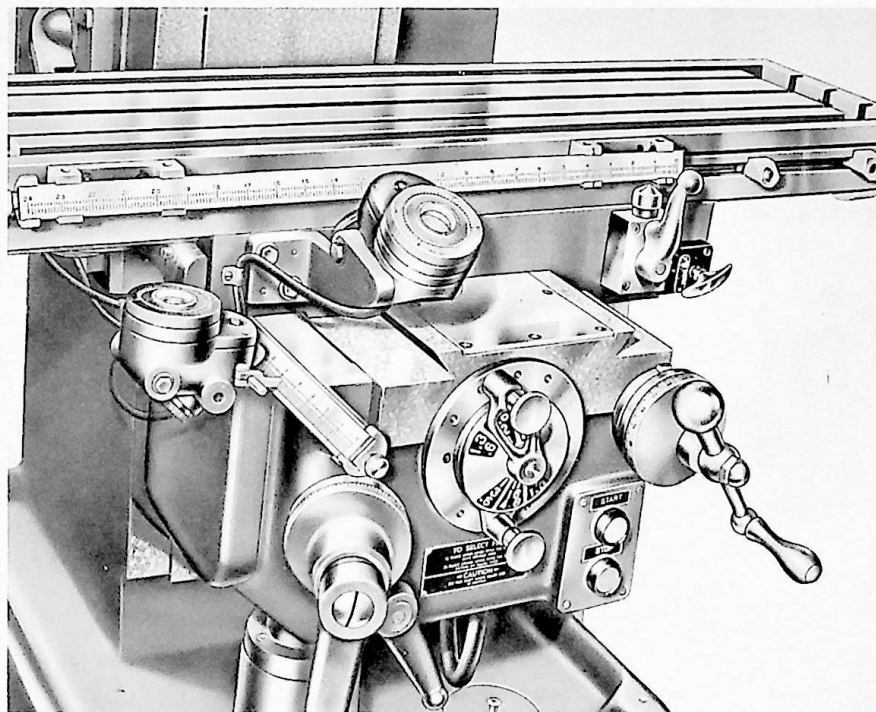




Linear Measuring Equipment . . . *Optical Vernier Attachment . . .*



Direct reading linear positioning to ten thousandths of an inch.

The Optical Vernier Attachments provide a very precise and extremely simple method of making linear measurements on machine tools. The optical principle offers definite advantages over other methods as no loose standards or dial indicators are required. The practice of maintaining pressure or establishing a zero setting is eliminated. The Optical Vernier Attachment is faster and more dependable than length rods, vernier scales and dial-controlled lead screws. It is not subject to dirt or temperature changes due to handling, nor can it be damaged by power feeds.

The Optical Vernier Attachment scales are graduated in 50 thousandths of an inch.

All Optical Vernier Attachments are mounted on machines at the factory. The accuracy built into the scales and microscopes of the optical vernier attachments require the most exacting standards in installation to insure the built-in quality of perfection of the measuring equipment.

The scale markings are magnified by a precision microscope and projected by built-in illumination onto a ground glass screen where they are easily observed with both eyes at normal reading distance. No focusing is necessary. By rotating a dial on the microscope, the fifty thousandths graduation on the scale can be divided so that readings to four decimal places are easily determined.

The Optical Vernier Attachments can be used for a great variety of measuring needs in the machine shop. They speed measuring operations, increase accuracy and permit more flexible machine use. Your Van Norman milling machine equipped with Optical Vernier Attachments, for example, can be used as a jig borer.

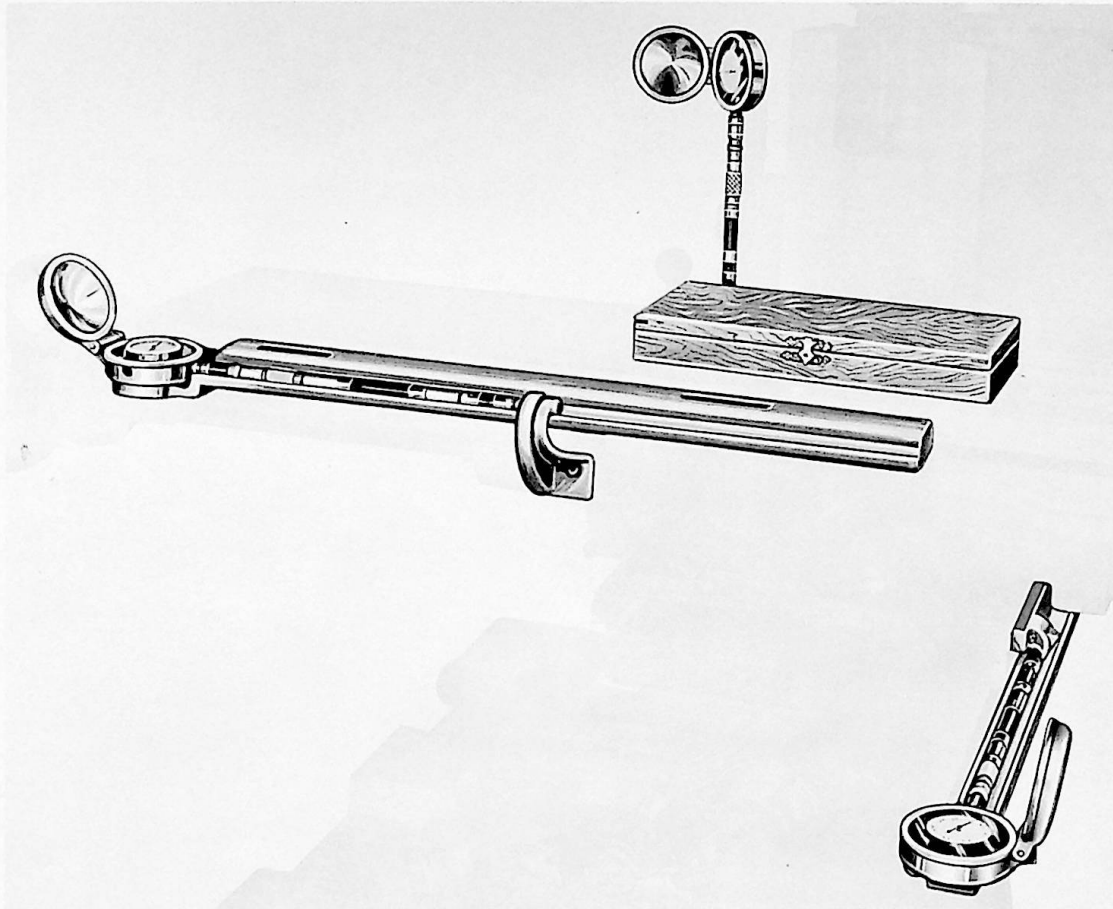
Optical Vernier Attachments are available for longitudinal and cross-feed. Each attachment consists of a microscope and a scale of proper length to correspond to maximum length of movement. In addition, each complete installation is provided with a transformer to change 60 cycle current from 110 volts to 6 volts for microscope illumination.

VAN NORMAN MACHINE COMPANY

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Gauge Block Attachments . . .



Gauge Block Attachments for the longitudinal, cross-feed and vertical movement are available for all Van Norman Ram Type Milling Machines.

The Gauge Block Attachment consists of a dial indicator measuring in .0001", measuring rods and inside micrometer. They come in a fitted box for their protection. In addition, a trough for holding the measuring rods and indicator is mounted on the machine along with a stop.

The Gauge Block Attachments are necessary for tool room operations that require accuracy beyond the usual milling machine limits. The Gauge Block Attachments are simple to use and will make it easier for the operator to make close adjustments. In combination with the Boring and Drilling Attachment, the Gauge Block Attachments can be used for the most intricate jig boring operations.

Gauge Block Attachments can be furnished for any one direction of travel or for any combination of the three movements.

CHAS. W. STONE CO.
1914 LaSALLE AVE.
MINNEAPOLIS 3, MINN.

Plain Vernier Attachment . . .

Another type of accurate measuring instrument available is the Plain Vernier Attachment which may be fitted to all Van Norman Ram Type Milling Machines in place of either the Optical Vernier or Gauge Block Attachments. They can be furnished for any one direction of travel or for any combination of the three movements.

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