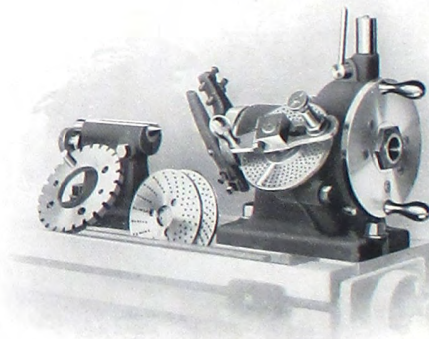


No. 1 Universal Centers,
10" swing.
Not Part of Regular Equipment.

"MILWAUKEE"
No. 1B
PLAIN
MILLER



No. 1 Plain Centers,
10" swing.
Not Part of Regular Equipment.

Table feed—automatic.....	24"	Number of feed changes.....	12
Cross feed—automatic.....	8"	Range of feed (in inches per minute).....	1/2-16
Vertical feed—automatic.....	18"	Diameter of driving pulley.....	14"
Working surface of table.....	9 1/2" x 38 3/8"	Width of driving belt.....	4"
Center of spindle to over-arm.....	5 5/8"	Speed of driving pulley (R. P. M.).....	250
B. & S. taper hole in spindle.....	No. 10	H. P. of motor for electric drive.....	3
Width of vise jaws.....	6 1/4"	Net weight in pounds.....	2900
Depth of vise jaws.....	1 1/2"	Shipping weight (domestic).....	3100
Vise opens without steel jaws.....	5 1/8"	Shipping weight (foreign).....	3500
Number of speed changes.....	18	Number of boxes (foreign).....	1
Range of speed (R. P. M.).....	15-354	Cubic feet (foreign).....	74
		Code word.....	ENSIGN

Equipment:—Vise, belt guard, oil pump for lubricating cutters and necessary wrenches.

MANUFACTURED BY
KEARNEY & TRECKER CO.
MILWAUKEE, WIS., U. S. A.

MILWAUKEE MILLING MACHINE

NO. 1B PLAIN

PLAIN describes a machine that was designed to occupy a position midway between the MANUFACTURING and UNIVERSAL types. It has power feed in all directions. When fitted with Universal Centers it is capable of performing any operation that can be done on a Universal Milling Machine with the exception of cutting spirals and when fitted with Spiral Universal Centers and Universal Milling Attachment, spirals can also be cut.

THE WORK TABLE is made of semi-steel and is finished all over, both top and bottom, as experience has shown that where the scale is left on one side the table does not long retain its accuracy. The T-slots are deep and the metal under the center slot is unusually thick. Thorough arrangements are made to catch the lubricant used on the cutters and return it through the screened pockets at the ends and telescopic tubing to the reservoir in the base of the machine.

THE BOX SECTION KNEE has no slot through the top to close when under pressure from the saddle clamps or the strain of the cut.

THE FLANGED SPINDLE used is an important improvement over the ordinary threaded end as it provides means for holding cutters for driving in either direction and the clutch collar keyed to the face of this spindle provides an ideal drive for the arbors, these arbors being tapped and held in the spindle by a draw-in rod, this same rod also being used to force the arbors out.

THE SPINDLE IS REVERSED by means self-contained within the machine so that right or left hand cutters can be used or the machine set up to run in either direction that proves to be most advantageous.

THE DRIVE is through a single pulley running at constant speed and protected by a belt guard so constructed that it can be adjusted to any angle. This guard is approved by safety experts everywhere.

THE SPINDLE SPEEDS are eighteen in number, providing a speed range from the largest cutters that will clear the over arm down to very small size end milling cutters. These changes are in geometrical progression in increments of about 20%.

THE LUBRICATING SYSTEM consists of a reservoir in the base of the machine holding several gallons of machine oil that is pumped to the top of the machine where it is distributed by a perforated pipe to all gears and bearings, cascading downward over all of these on its way back to the reservoir. Where oil grooves, in ordinary construction, are stopped short of the ends of the bearings to hold oil, in these machines they are cut clear through so that the oil will flow through them rapidly and wash away any foreign substance that otherwise might cause heating and cutting.

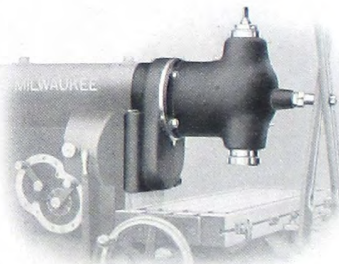
A CUTTER LUBRICATING PUMP is provided on every machine whether so ordered or not as practically every milling machine sooner or later finds its way on to steel or other material requiring lubricant and the life of the milling cutter is greatly prolonged and its efficiency enhanced by a liberal use of lubricant to wash away chips and keep it cool. Careful provision has been made for the return of the lubricant to the reservoir as indicated when referring to the work table.

U. S. PATENTS

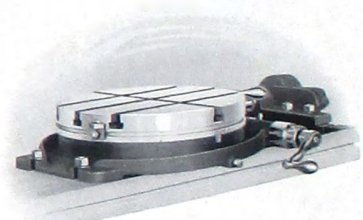
Feb. 9, 1904—Box section knee without slotted top.
 Oct. 23, 1906—Automatic lubrication.
 June 13, 1911—Cutter lubricant return.
 Mar. 12, 1912—Spindle drive gearing.
 Feb. 18, 1913—Flanged spindle.
 Other patents pending.

ATTACHMENTS:—A full line of attachments are manufactured for these machines and can be supplied at any time. These consist of the following:—

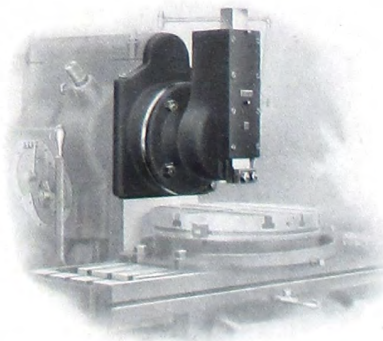
Motor Drive	Universal Milling	Slotting
Right Angle Drive	Plain Centers	Cutters
Vertical Spindle	Universal Centers	Cutter Arbors
Rotary Table	Spiral Universal Centers	Collets, etc.



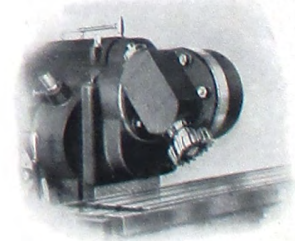
No. 1 Vertical Spindle Attachment.
 All tools interchange with the horizontal spindle.



No. 1 Rotary Table, 14 1/4" diam.
 Has power feed in either direction.



No. 1 Slotting Attachment,
 0" to 4" stroke.
 Quick return.



No. 1 Universal Milling Attachment.
 Spindle has No. 10 B & S Taper hole.
 Can be set to any position.

