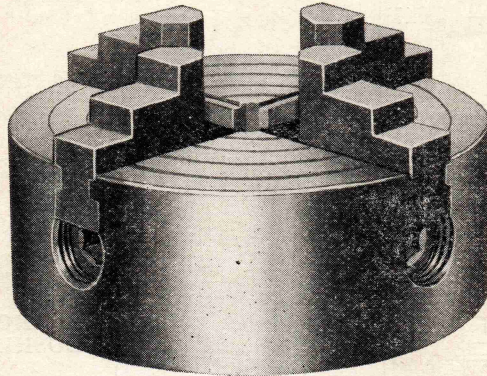


July 1932

Why Pay More?



PAT. PNDG.

THE WATSON JUNIOR LATHE CHUCK

INDEPENDENT

3 inch - - \$3.50

4 inch - - \$4.50

5 " \$6.50

6 " 8.00

*No
Scroll
Chucks*

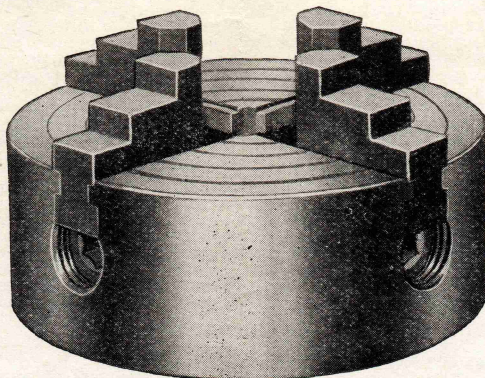
THE WATSON MFG. CO.

TOLEDO, OHIO

WATSON JUNIOR LATHE CHUCKS

3 INCH \$3.50

Independent



4 INCH \$4.50

Reversible Jaws

A COMBINATION OF QUALITY AND PRICE NEVER BEFORE OFFERED

This is made possible through improved construction and better design

WILL DO ANYTHING ANY CHUCK OF LIKE TYPE WILL DO

Holds Any Work That Can be Chucked Either Concentric or Eccentric

The DEMAND for a GOOD CHUCK AT A MODERATE PRICE IS WELL KNOWN

Watson Junior Chucks Meet This Need 100% For They Are Dependable Tools and Are Sold at Amazingly Low Prices

SIMPLE

STURDY

DURABLE

CAN BE MOUNTED ON ANY MACHINE SPINDLE

SPECIFICATIONS

3 inch Chuck Will Hold Work 3/16" to 3"
BODY: Close grained high tensil strength grey iron
JAW SCREWS: Steel hardened with hex socket for wrench

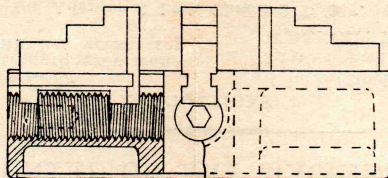
4 inch Chuck Will Hold Work 3/16" to 4"
JAWS: Steel heat treated and hardened in color
WRENCH: 7/32" hezagon

Diameter of Counter Bore for Adapter 3 inch Chuck 2 13/16". 4 inch Chuck 3 13/16"

THE WATSON MFG. CO., TOLEDO, OHIO

A GOOD CHUCK AT A RIGHT PRICE

CONSTRUCTION



DETAIL

PAT. PNDG.

The need has long been known for a good substantial chuck of light pattern and in the smaller sizes which could be sold at a price within the reach of all.

The Watson Junior Lathe Chuck is the Answer

A sturdy chuck properly built of the best materials and at a remarkably low price.

Design

These chucks are constructed on an entirely new principle which produces a chuck that will do anything any independent chuck of like size and character will do and at the same time reduces manufacturing cost to the minimum.

Workmanship

These chucks are built in our modern daylight factory, by highly skilled mechanics and on the most up-to-date equipment obtainable. The result is a high grade product in every particular.

Inspection

Our chucks are all assembled from interchangeable parts, each part being made to master gages with close limits of tolerance and a constant inspection is maintained throughout the entire process of manufacture.

Finish

Chuck bodies are polished on the face, ground on outside diameter and the jaws are hardened in color, giving the completed job a very fine appearance.

GUARANTEE

We warrant these chucks free from imperfections of material or defects in workmanship and should any chuck or any part of any chuck, upon use, prove defective, we will upon its prepaid return for our inspection, replace it free of charge. We cannot however, assume the responsibility where original imperfection does not appear, nor can we replace chucks or parts which have been abused.

ATTACHMENT

No matter how good or how accurate a chuck may be made it can never be better or more accurate than the mounting which is used to attach it to the machine spindle on which it is to be used. Therefore it is essential that mounting be properly and well done to insure best results from the use of chuck.

Since lathe or other machine spindles upon which chucks may be used vary so much in diameter, length of threaded portion, form and pitch of thread and in other ways, chucks cannot be made to fit all spindles direct but must be made in such a way that they can be mounted on any machine spindle.

Common practice has always been to make chucks with a recess in the back to receive a separate piece known as an adapter or back plate which is in turn fitted to the machine spindle. Watson Junior Chucks are made not only to meet this condition but to make some other simpler and cheaper forms of mounting possible as well, where conditions will permit.

In mounting chucks it is necessary to have the machine spindle on which chuck is to be used at hand for careful and close fitting, consequently we always recommend that this work be done by the purchaser or that he has it done for him in some good local shop as this is usually found to be the best, quickest and cheapest method.

Where this is impossible or impractical for any reason and the chuck purchaser will provide us either with the machine spindle to be fitted or with a gauge which is an exact duplicate of that portion of spindle where chuck or adapter seats, we can provide the necessary part, when needed, and make whatever mounting is desired. However, it must be distinctly understood that any materials used as well as any work we may do in the nature of mounting whether it be bushing hub, or the making of adapter or arbor is ALWAYS an extra and must be paid for in addition to the price of the chuck.

As a convenience we enclose with each chuck shipped, detailed and illustrated instructions for making several different mountings.

WATSON JUNIOR LATHE CHUCKS

Junior chuck bodies are counterbored in the back of the rim to receive "back plate" or "adapter", much the same as all other chucks. In addition to this these chucks have a heavy central hub cast integral with the body which is bored with a $\frac{3}{4}$ -in. straight hole admitting of other simple mountings such as, attaching direct to shaft or arbor with set screw or bushing with inserts bored or threaded to fit spindles of small diameter.

ON BACK PLATE OR ADAPTER

We recommend this form of mounting for the reasons that it admits of rigid attachment to any spindle of any size, that the back plate supports the chuck body thereby increasing its rigidity and strength and that this is the only type of mounting suitable where the machine spindle is over $\frac{3}{8}$ -in. in diameter.

This mounting is best accomplished by first, securing a good sound grey iron casting of proper dimensions for making the back plate; second, boring or threading this plate to a perfect fit for machine spindle; third, finish machining the plate while properly seated on the lathe spindle upon which it is to be used, being careful to see that the plate is faced in a flat plane where it seats in the chuck and that its diameter is a snug fit in the counterbore of the chuck, and fourth, drill the chuck body, drill and tap the back plate and insert four flat head machine screws as shown in FIG. 1.

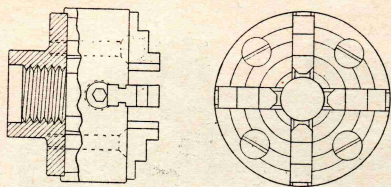


FIG. 1

WITHOUT THE USE OF BACK PLATE OR ADAPTER BY BUSHING CHUCK HUB TO FIT MACHINE SPINDLE DIRECT.

This is a simple and cheap method of mounting which is found satisfactory where chuck is to be mounted on machines having small spindles and where the chuck is to be used for light work only.

Where the threaded portion or "nose" of machine spindle on which chuck is to be used is not over $\frac{3}{8}$ inches in diameter the chuck hub can be bushed to mount direct on spindle.

This is done by making a special bushing which is accurately machined inside to fit the "nose" of machine spindle and turned outside concentric with that bore to a press fit in the $\frac{3}{4}$ -in. hole in the chuck hub.

CAUTION: See that the bushing does not extend into the chuck hub more than $\frac{11}{16}$ inch. This is to avoid interference with operation of jaws. The bushing should be locked in position with set screw as shown in FIG. 2 which illustrates this method.

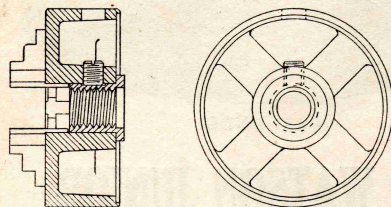


FIG. 2

ON A TAPERED ARBOR WHICH IS MADE TO FIT THE TAPER BORE IN LATHE SPINDLE.

Where small chucks are to be used on large lathes and for light work only, this method presents the advantage of cheapness and quick attachment or detachment.

It consists simply of making an arbor one end of which is turned taper to fit the bore in lathe spindle, or tail stock, and the other a press fit in the $\frac{3}{4}$ -inch hole in the chuck hub. Lock with set screw as shown.

NOTE: Do not allow arbor to extend into chuck hub more than $\frac{11}{16}$ inch also that this arbor may be hollow bored to admit of rods passing through the headstock. FIG. 3 shows this method clearly.

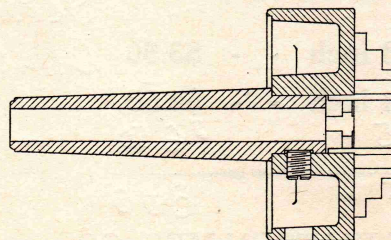
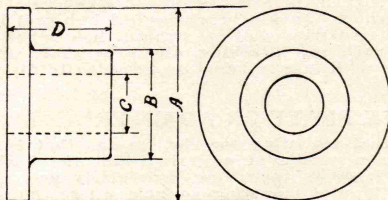


FIG. 3

The Watson Mfg. Co.

Toledo, Ohio

We can furnish adapter or back plate castings (not machined) for mounting Watson Junior Chucks as shown and listed below.



Chuck size	Adapter Number	A	B	C	D	Postpaid Price
3"	No. 1	3"	1 1/8"	solid	1 1/8"	\$1.75 ea.
3"	No. 2	3"	1 3/4"	3/4"	1 1/2"	\$1.80 ea.

Chuck size	Adapter Number	A	B	C	D	Postpaid Price
4"	No. 3	4"	1 1/4"	solid	1 1/8"	\$1.85 ea.
4"	No. 4	4"	1 1/2"	3/4"	1 1/8"	\$1.00 ea.
4"	No. 5	4"	2 1/4"	1 1/2"	2 1/8"	\$1.50 ea.
4"	No. 6	4"	2 3/4"	1 3/4"	2 1/8"	\$2.00 ea.

The Home of Watson Junior Chucks
and Baby Grand Tools



WATSON tools need no introduction to the trade for back of every WATSON product is thirty years of experience in building fine tools.

WATSON BABY GRAND Lathes, Grinders, Bench Drills, etc., have a well established reputation for simplicity, accuracy, sturdiness and high quality, which reputation is not compromised, but strengthened, by the addition of the WATSON Junior Chuck.

No WATSON tool has ever been sold except on an unqualified money-back guarantee.

THE WATSON MFG. CO.

TOLEDO, OHIO