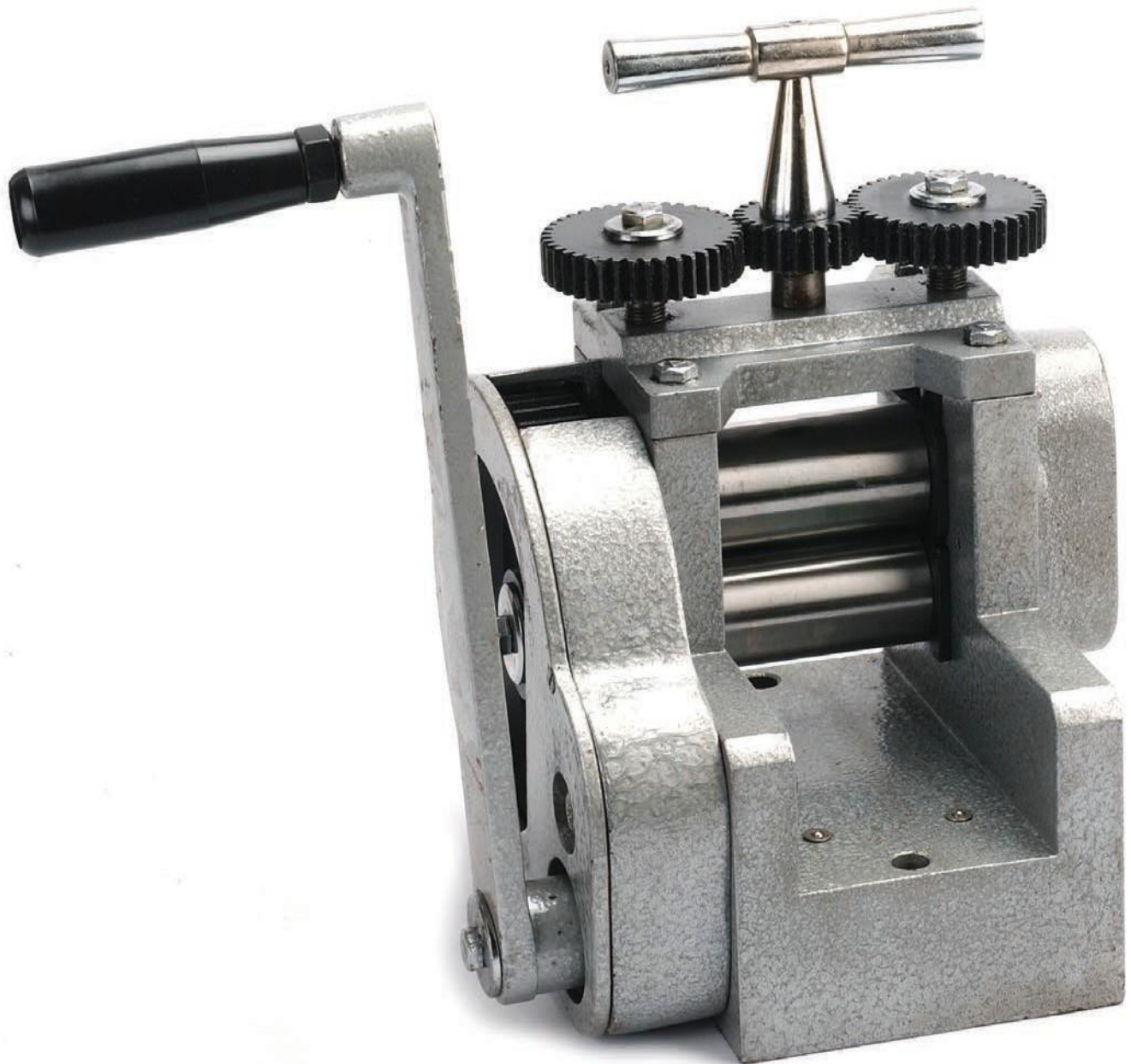


# Rolling Mill with Reduction Gear



# Rolling Mill with Reduction Gear

## Owners Manual

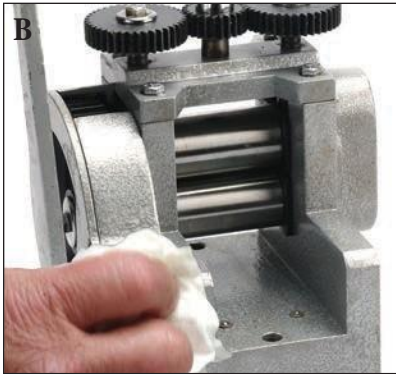
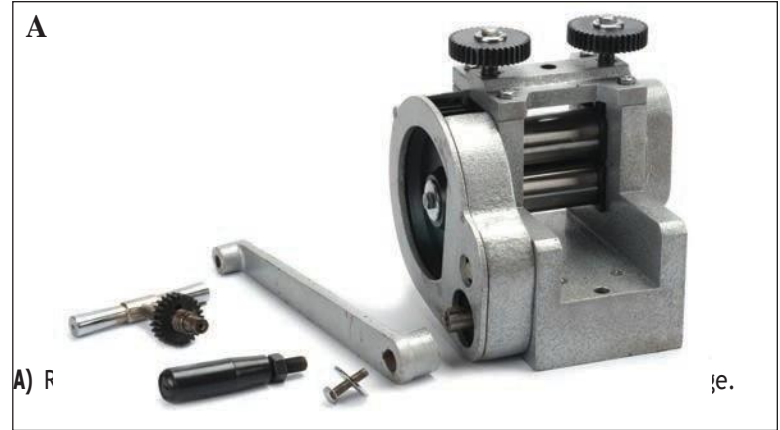
The Rolling Mill is a light duty rolling mill suitable for rolling soft precious metal alloys like gold, silver and copper. To insure a long, useful service life, always make sure you anneal your metal often and refrain from making large reductions in metal thickness. The Rolling Mill has a 12-month warranty from date of purchase. We will replace any part that fails at no charge during that period. Any modifications to this mill will void the warranty, including but not limited to attempting to motorize this unit.

The Rolling Mill requires minimal assembly. The carton contains:

- The Rolling Mill Main Assembly with 2 Flat Rollers Installed
- The Rolling Mill Large Handle
- The Rolling Mill Small Plastic Handle
- T-Top Roller Adjuster



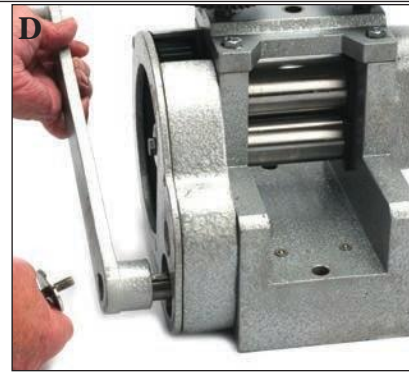
T  
Screwdriver  
Crescent Wrench



**B)** Your new rolling mill is covered with a coating of grease to protect it from rust. Wipe away the grease from the rolls and the roller frame and covers. Do not remove the grease from gears or any moving parts. (Please read the maintenance instructions for detailed information on the care and lubrication of your rolling mill).



**C)** Screw the small handgrip handle into the large handle.



**D)** Using the bolt and washer supplied on the main assembly, install the large handle to the mill.



**E)** Before installing the Mill Wheel to the Top Gear Assembly, you will need to properly align the top gears. Make sure both gears on the top gear assembly are fully "screwed" down so that the top flat roller is in full contact with the lower flat roller.



**F)** Once you have the top gears balanced install the T-top roller adjuster

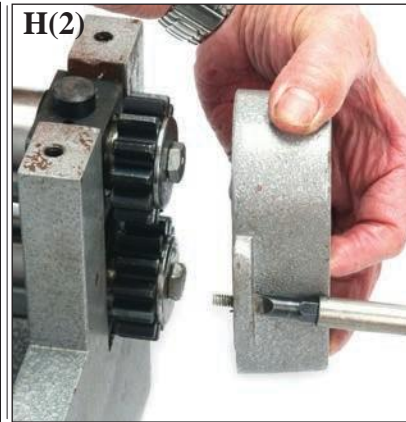
Your rolling mill is now assembled. Before using, make sure you remove any excess grease from the surface of the rolls. After use, always re-apply a coating of oil or grease to the rolls. Unprotected dry rolls will rust. You can also cover the rolls with a soft cloth that has been lightly oiled to help protect the roll surface.

## How to Change Rollers

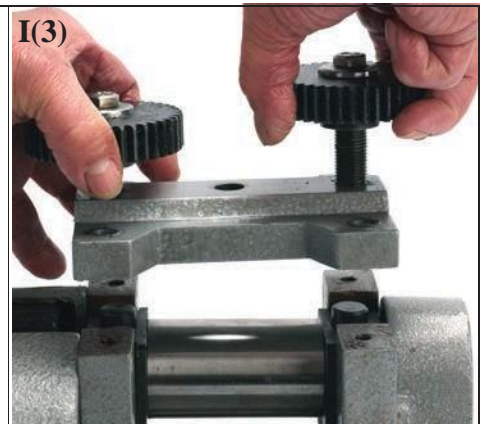
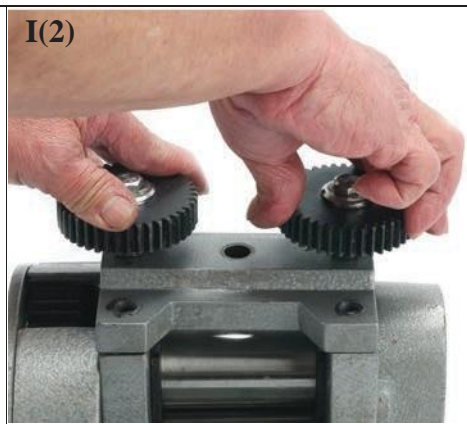
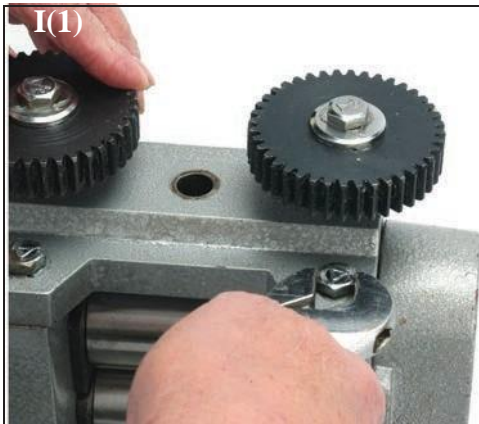
There are a variety of optional pattern and wire rollers will fit your Rolling Mill. If you would like to use them, you will need to partially disassemble the mill to switch out the rolls. Most of the optional rolls are upper rolls only used with the lower flat roll that is installed on the mill. The directions that follow are for switching out an upper roll. If you purchased an optional matched upper and lower wire mill set, the instructions for switching out the lower flat roll continue at step Q.



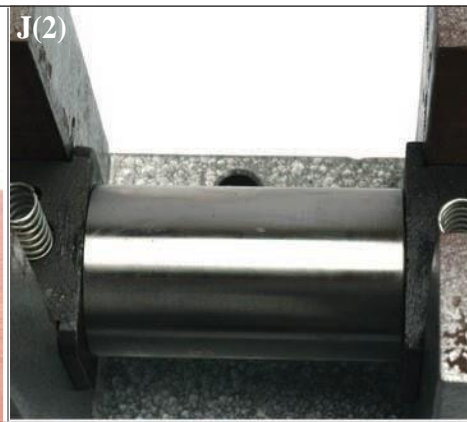
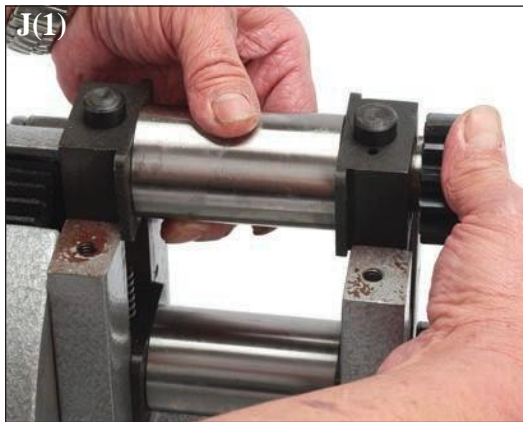
G) Remove Top T-Wheel Assembly.



H)-1,2 Remove the Side Gear Cover that is secured with two screws.



I)-1, 2, 3 Remove the Top Gear Assembly by removing the four bolts on top of the mill.



J)-1, 2) Remove top roller-Note: Be careful with the springs between upper and lower rollers, they provide tension and are very important. In order to prevent loss, put aside in a safe spot until reinstalling them.



K) Remove the bolt that secures the gear and block to the upper roll.

(Continuing from step P.)



**L**

L) Remove the gear from the rolls.



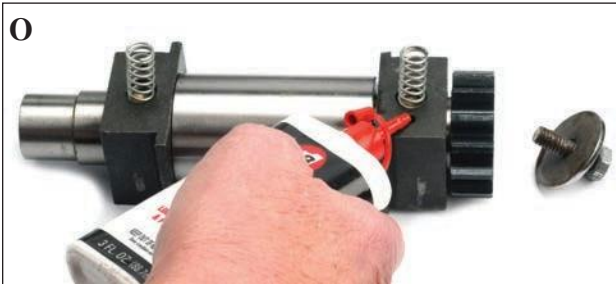
**M**

M) Remove the block from the rolls.



**N**

N) You have now disassembled the upper roll.



**O**

O) Lubricate the flat surfaces or the blocks that bear the weight with oil, bottom roll.

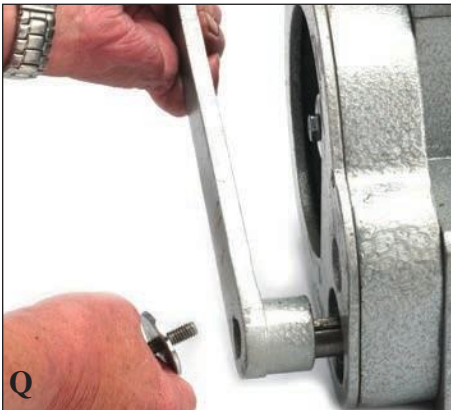


**P**

P) Lubricate the flat surfaces or the blocks that bear the weight with oil, upper roll.

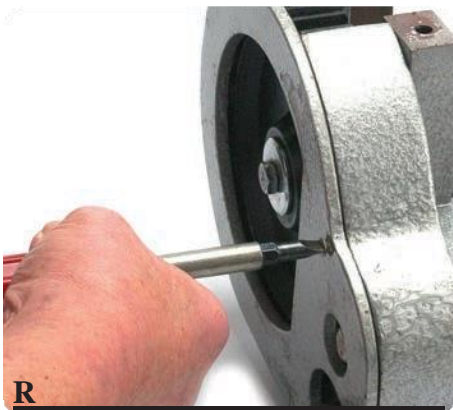
If you are only switching out an upper roll, you are now ready to re-assemble the mill. Do so by following the directions in reverse. If you need to switch out the lower flat roll, continue with step Q.

### *How To Change the Lower Flat Roller*



**Q**

Q) Remove the handle from the mill.



**R**

R) Remove the three screws that hold the outer reduction gear cover.



**S**

S) Remove the outer reduction gear cover.



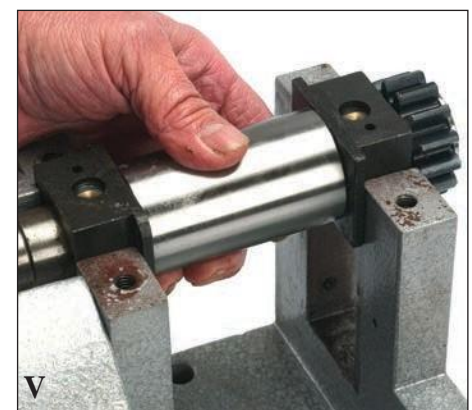
**T**

T) Remove the bolt that holds the large reduction gear to the mill.



**U**

U) Remove the large reduction gear from the mill.



**V**

V) You can now access the lower roller and remove it from the mill.

Note that you treat this part just like the upper roller. See instructions above part L through Q. Re-assemble the lower wire roller and reverse the order of these instructions to re-assemble your mill.

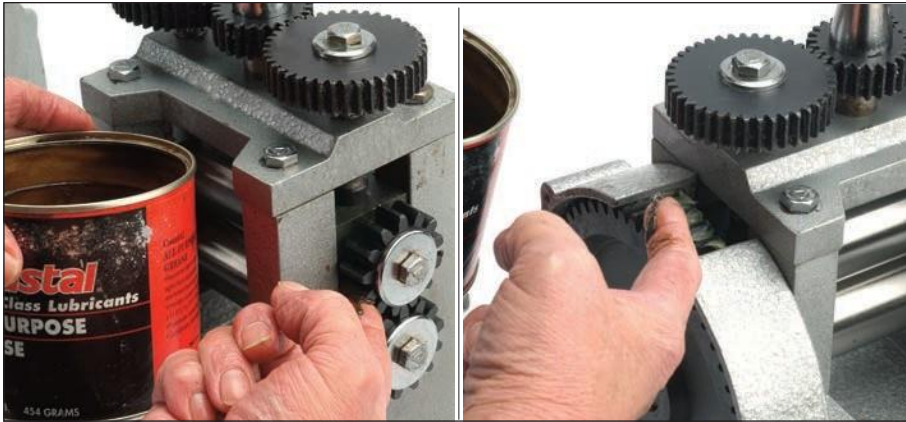
# Rolling Mill Maintenance

Proper lubrication of all moving parts is essential for the maintenance of your rolling mill. You will need the following items:

*All-purpose grease  
Motor or Machine Oil*



Any multi-purpose grease and machine or motor oil you can have will be sufficient. There is no particular recommended brand or grade.



## ***Grease Points:***

Before using your mill, make sure that the gears are well greased. If in doubt, lubricate. Every so often, place a tablespoon or so of grease on the side gears and the reduction gears. Early models without the opening will require you to remove the covers and then grease the gears.

Before use, always clean the rolls to remove all lubricants. After use, re-lubricate the rolls with oil or grease. The rolls will rust if they are left un-lubricated. Check the tightness of all the nuts and bolts before use.

## ***Do's and Don'ts***

**Don't** lift the mill by the center mill T-wheel-It is not attached to the mill.

**Don't** put ferrous metals through your mill-They will ruin your rolls.

Do oil or grease your rolls after each use.

Do wipe the rolls clean of oil or grease before each use.

Do cover your rolls with a lightly oiled cloth after each use.

Do inspect your rolling mill before and after use for loose nuts.

Do anneal your metal often.

**Don't** make large reductions in metal thickness with your mill.

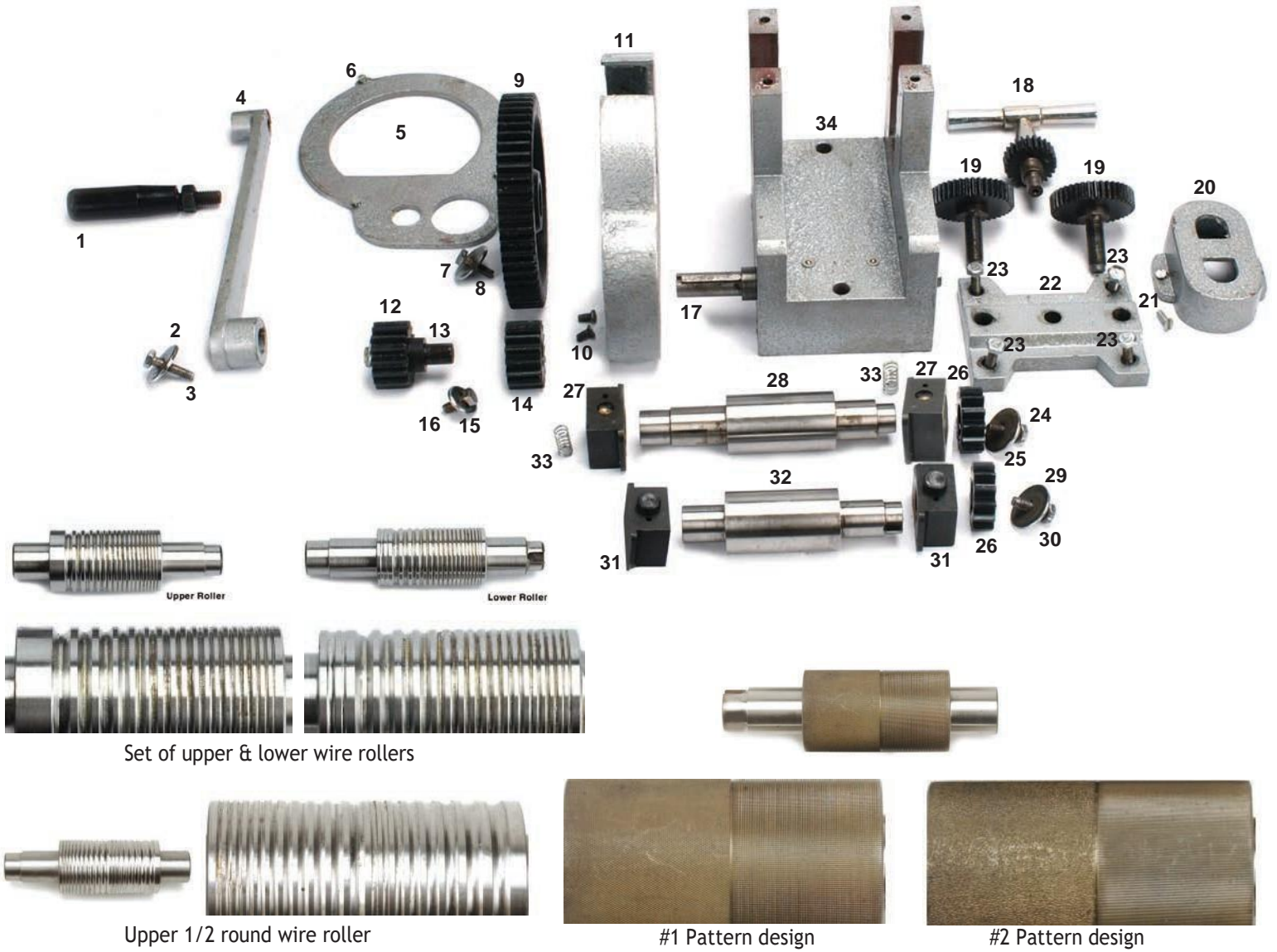
Do make many small passes to reduce the thickness of your metal.

**Don't** let uninformed people use your rolling mill.

Do make sure your rolling mill is well lubricated.



# Rolling Mill Parts List



	Description		Description
1	Small plastic handle	18	T-top roller adjuster
2	Washer	19	Roller adjusting wheels
3	Nut	20	Side gear cover
4	Large handle	21	Screws for side gear cover (2)
5	Side Reduction gear cover	22	Mill top
6	Screws (3)	23	Top nuts (4)
7	Washer	24	Washer
8	Nut	25	Nut
9	Large reduction gear	26	Side gears (2)
10	Screws-for Inner reduction gear cover (2)	27	Lower bushing blocks (2)
11	Inner reduction gear cover	28	Lower flat roller
12	Small reduction gear	29	Washers (2)
13	Idler shaft	30	Nuts (2)
14	Drive shaft gear	31	Upper bushing blocks (2)
15	Nut	32	Upper flat roller
16	Washer	33	Adjusting springs (2)
17	Drive shaft	34	Body

# Optional Upper Rolls Rolling Mills Deep Cut Bangle



#4 Deep cut special bangle design



#67 Deep cut special bangle design



#64 Deep cut special bangle design



## Standard Bangle



#52 Bangle design



#54 Bangle design



#55 Bangle design



#59 Bangle design



#60 Bangle design



## Texturing Designs



#4 Design pattern



#5 Design pattern



#6 Design pattern



#7 Design pattern



#8 Design pattern



1

#9 Design pattern

# Optional Upper Rolls for Rolling Mills

## Etched Designs



#48 Design pattern



#10 Design pattern



#11 Design pattern



#12 Design pattern



#25 Design pattern



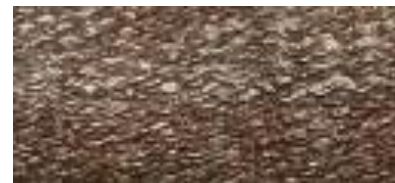
#26 Design pattern



#27 Design pattern



#28 Design pattern



#29 Design pattern



#30 Design pattern



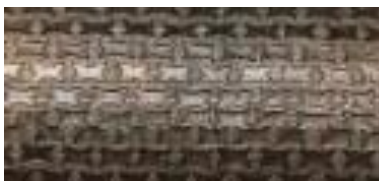
#31 Design pattern



#32 Design pattern



#33 Design pattern



#34 Design pattern



#35 Design pattern



#36 Design pattern