

... RIVETT ...

Watchmakers' Lathes and Staking Tools

MANUFACTURED BY

FANEUIL WATCH TOOL Co.

INCORPORATED

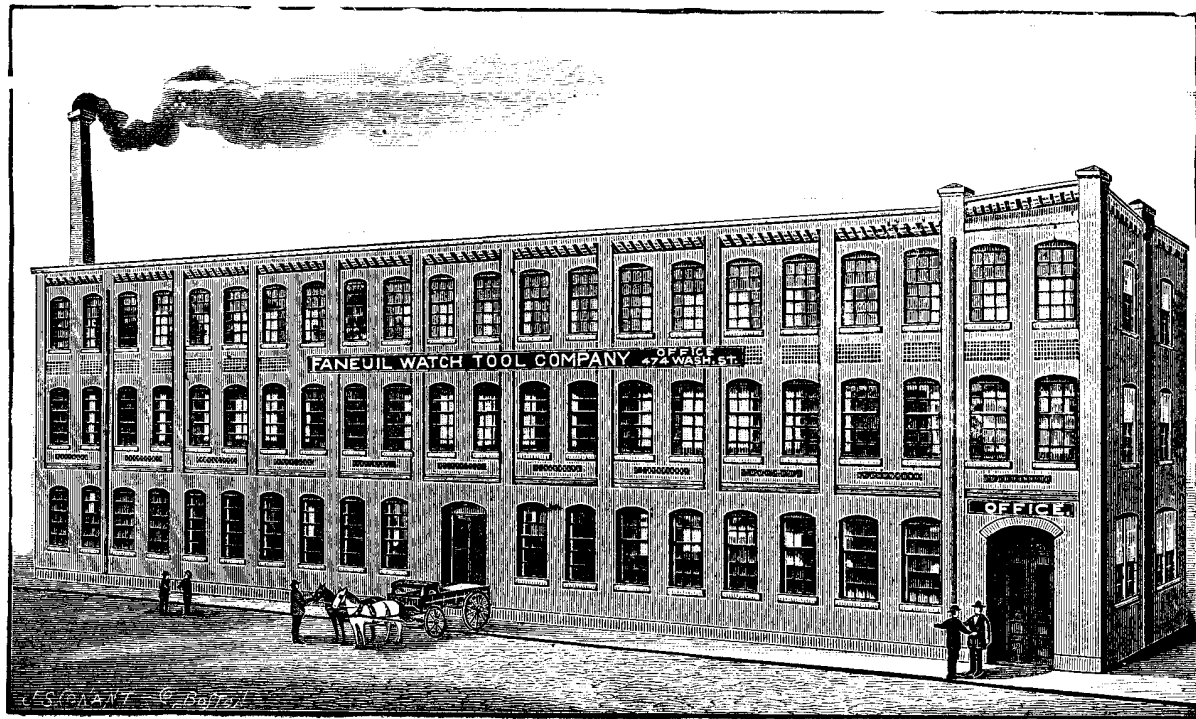
BRIGHTON, BOSTON, MASS., = = U. S. A.

1902.

JOHN D. CROSBY, Treasurer.

EDWARD RIVETT, Pres. and Mgr.

COPYRIGHT, 1895, BY E. RIVETT.



Our factory is situated in the City of Boston, Brighton District, Ward 25, six miles from the business center. It can be reached by the Boston & Albany R. R. to Faneuil Station, (100 feet from the depot), or by Electric Cars from the Subway; No. Beacon Street Watertown Line to Arsenal Gates, or Oak Square Line to Fairbanks Street.

The Rivett Watchmakers' Lathe.

Simple in Construction. Perfect in its Working.

IN introducing the Rivett Watchmakers' Lathe, attachments, etc., to the craft, we feel confident of having an article superior to any other.

The assurance of watchmakers in using the Rivett tools, is the continual improvements we are making, and our great facilities for turning out fine work. Starting from the smallest we are now the largest manufacturers of watch lathes, not only in this country but in the world, and the Rivett lathe takes the front rank in all the finest factories both in this country and in Europe.

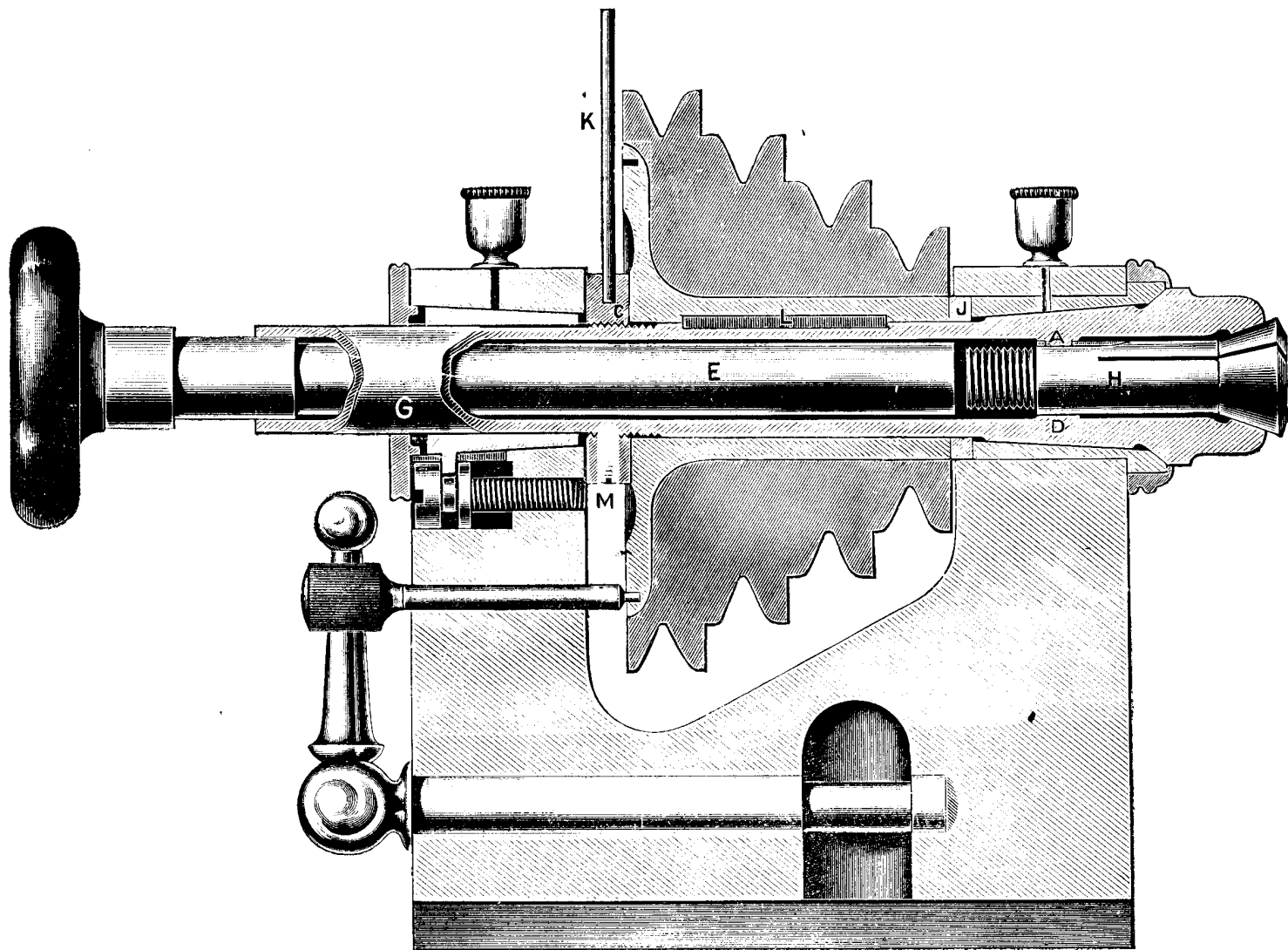
While in the beginning, Mr. Edward Rivett had but a small interest in the business, he is now the largest owner, and his whole heart and soul are at stake, he is a skilful watchmaker and machinest, and it is to his genius and perseverance that his fellow craftsmen are indebted for this much needed lathe, whereby a watch repairer, at his store or office, can do as fine a piece of work as though it were sent to a large factory.

The attachments are simple, and will turn out more and better work than any other lathe in the market.

All of these lathes are of one quality, with hardened spindles and bearings, and are ground by an automatic machine constructed especially for that purpose. The bed is made from the best of steel, being very much superior to a cast iron bed. It also takes a better finish, higher polish, and is free from all imperfections which are found in cast iron.

We guarantee the Rivett Lathe to be the most perfect one ever made, exceeding all others in accuracy, as well as in beauty of form and finish.

Watchmakers contemplating the purchase of a lathe will make a mistake if they do not examine this before purchasing. For when a man buys a Rivett lathe he not only gets the best, but one of the lathes that are being put into all of the finest Institutions in the country.



RIVETT LATHE No. 2 FOR WATCHMAKERS.
Sectional cut of Headstock showing new construction.

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Construction of Headstock of Rivett Lathe.

DESCRIPTION.

A.—Chuck seat pin.

B.—Improved bushing for taking up side-shake in the rear bearing.

This bushing differs from the old style, which was like the front bearing D. It has a taper adjustment same as before, but the contact with the spindle is straight instead of angular. This bushing has the same adjustment that we have on our fast speed grinding machine, and this is the way we make all our lathes.

C.—Binding nut to take up end-shake.

D.—Front bearing.

E.—Drawing-in spindle.

Beware of dealers who say they will sell you a lathe as good as the "Rivett" we can give plenty of proof that ours is the best.

H.—Chuck.

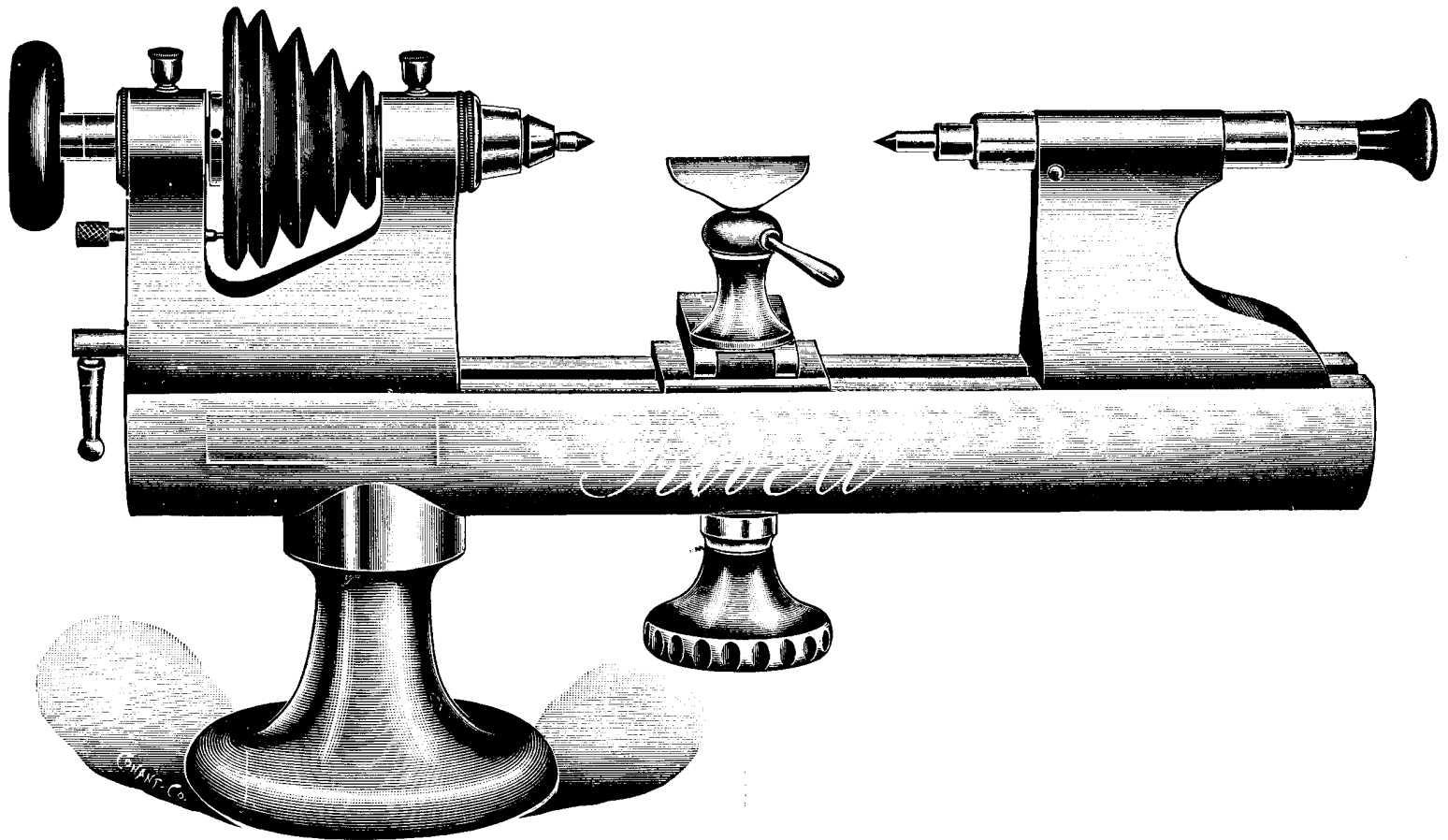
K.—Pin to tighten and loosen nut C.

In taking the head apart unscrew the nut C. which forces out the spindle.

L.—Key-way.

This is a new and more expensive style of fastening the cone to the spindle on watch-makers' lathes, which all mechanics will appreciate. The old style was to tighten the cone with a screw which touched the spindle only at one point and the result was to throw the spindle out of true. The key-way obviates this difficulty completely.

M.—Set screw to tighten nut C. when in place.



RIVETT LATHE No. 2 FOR WATCHMAKERS.

(New Style Cone has three steps instead of four.) Price, \$35.00.

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Rivett Lathe No. 2 for Watchmakers.

WE present this new Lathe to the public, sure that it will receive due attention from the craft. The new construction, described in the preceeding pages, makes a much easier and truer running lathe than the old construction in which the rear bearing was 3 and 45 degrees, exactly like the front bearing, and really a detriment to the lathe; for as all the wear comes on the front bearing the lighter the back bearing is the easier the lathe will run. The most important lathes in our shop have this construction, and we find that they are more sensitive, easier running, and that they last longer. Every Rivett lathe is run before it leaves the shop more revolutions than any watchmaker is likely to run one in all his life, and that without any perceptible wear.

The spindles and bushings are made of the best tool steel, hardened and ground. The cone of hard rubber has three steps, and an iron flange with 60 index holes.

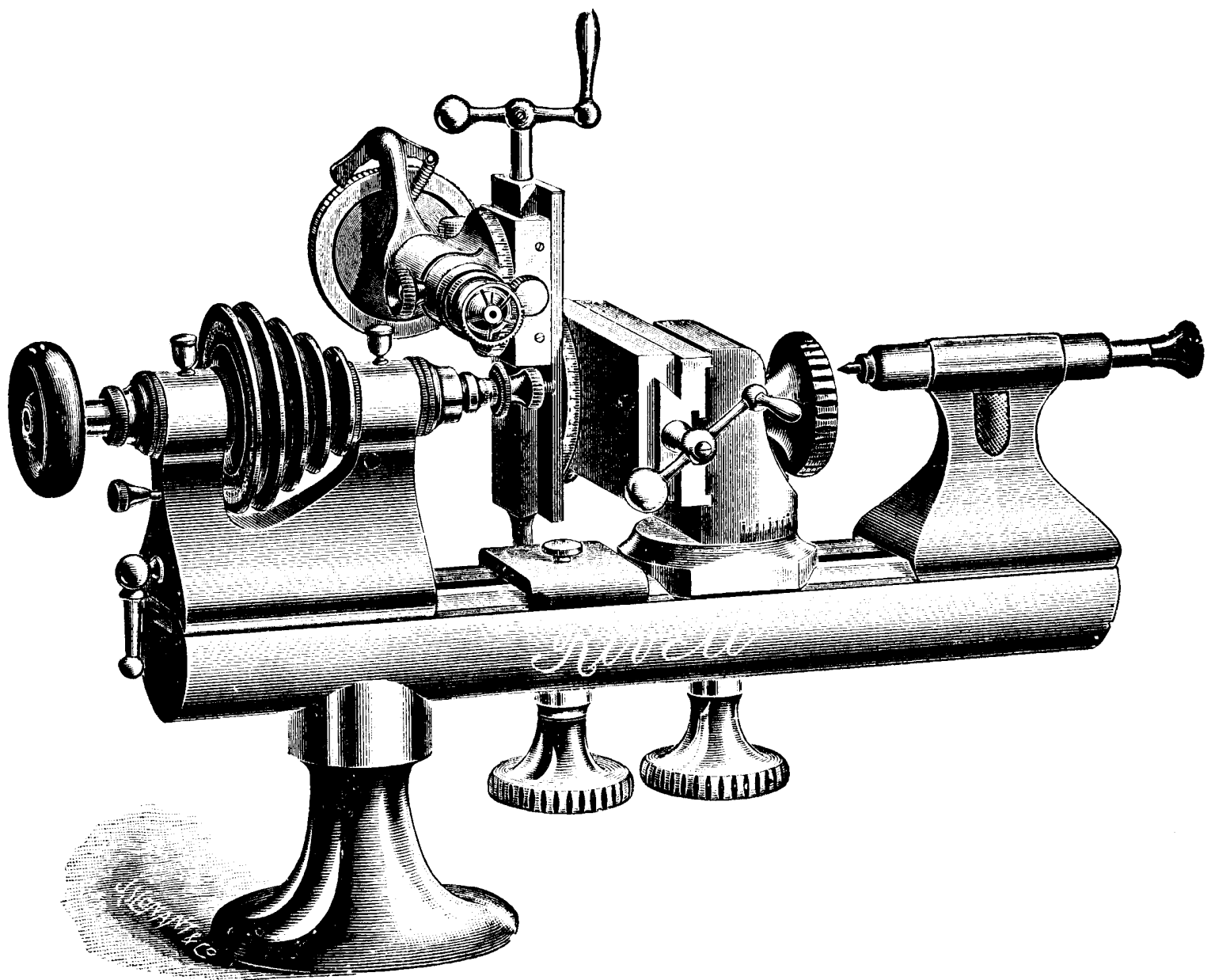
The tailstock is of a new pattern, and though the old style had a handsome curve at the front, it was really a detriment to the rigidity of the tailstock, we have now put the stock in where it is needed to make it firm, and have also put the spindle binder where it is absolutely necessary, to hold the spindle stiff. The spindle is hardened and ground.

The bed is of the center guide pattern, as we think that this has advantages over the outside guide, in that the ways are not so exposed to harm, from rust caused by perspiration from the hands, nicks and dust, any of which are apt to throw the lathe out of true.

The bed is made from solid bar steel, as this is free from all the imperfections usually found in castings, it takes a better finish, a higher polish, and a better plate of nickle, and will not rust for years with ordinary care.

DIMENSIONS OF LATHE.

Length of bed,	-	-	-	-	-	-	-	-	11 1-2 inches.
Bed to centre,	-	-	-	-	-	-	-	-	2 3-16 "
Swing,	-	-	-	-	-	-	-	-	4 3-8 "



RIVETT LATHE No. 2 WITH WHEEL CUTTING ATTACHMENT.

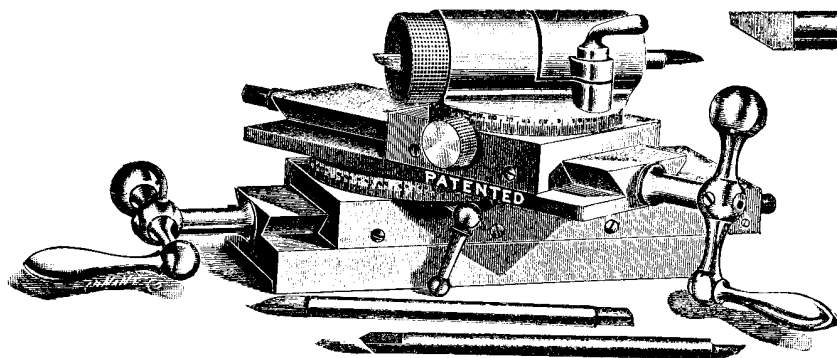
COPYRIGHT, 1895, BY E. RIVETT.

Rivett Lathe No. 2 with Wheel Cutting Attachment.

THE cut on the opposite page shows the lathe with the wheel cutting attachment mounted with the slide rest for cutting wheels. This attachment is built on exactly the same plan as the milling attachment for our large lathes. It cuts all kinds of pinions used in key and stem winding watches and wheels up to $2\frac{1}{2}$ inches in diameter. Also plate work such as milling recesses, or any milling which is required in any watches. All the milling and cutting on some of the finest chronometers made in America has been done with this attachment. It is considered by all to be the best, as it requires no extra belts or shafting, and can be operated by any one having but little experience in wheel cutting. Mr. Rivett will guarantee to teach any one to cut a wheel in an hour's time.

This attachment is useful not only in watchmaking, but has been found to be the most practical attachment in machine shops where they do fine tool-making.

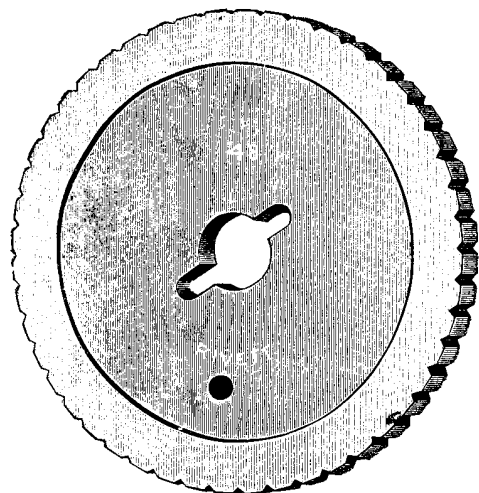
We are indebted in a large measure to our Patent Slide Rest for the success of our tools, as it has more merit than any one of the other attachments.



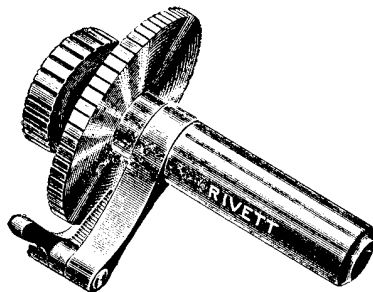
SLIDE REST. Price, \$30.00.



TOOL HOLDER.

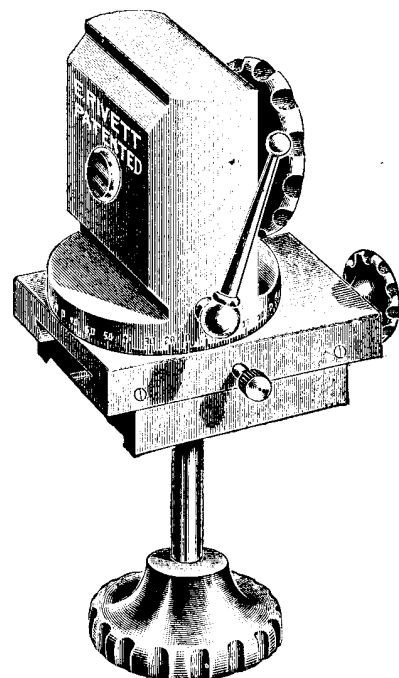


INDEX.



QUIL.

Wheel Cutting Attachment, comprising Revolvable, Tailstock, Quil and 12 Index Plates \$35.00.



REVOLVABLE TAILSTOCK.

Rivett Slide Rest and Wheel Cutting Attachment No. 2.

THE Rivett Slide Rest shown on the opposite page has two circular graduated bases, that can be set at any angle, which makes all kinds of turning easy. The binder for binding the graduated base is so constructed that by using the thumb screw with very little power, it makes the base firmer and steadier than any other in the market.

The Tool Holder is an eccentric device, easily adjusted to the center, and allowing the cutting tool to be put close to the work, making it very solid, with no tendency to vibrate or chatter when cutting. The cutting tools are of round wire, rendering it very easy for any watchmaker to make his own tools.

The Wheel Cutting Attachment consists of the Revolvable Tailstock, Quil, and 12 Index Plates with spaces of the following numbers, 22, 26, 34, 48, 50, 54, 56, 60, 64, 72, 80 and 84.

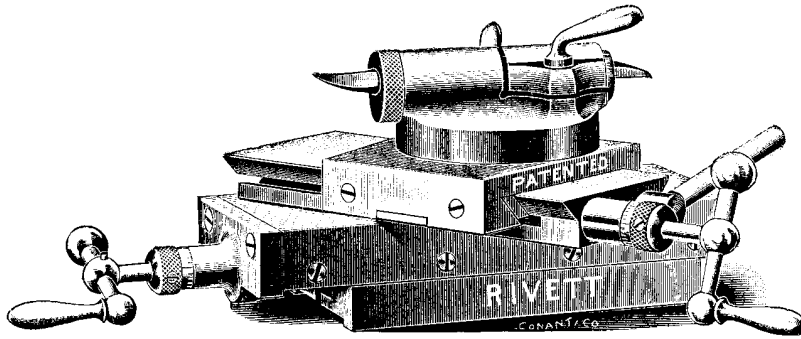
The Quil fits into the top of the Slide Rest in place of the tool-holder, and has a spindle to take the same chucks as the head spindle.

The Index Plate is kept in place by two lugs milled from the solid spindle, which makes it very firm. Our Index Plates are the same kind as those used in the watch factories. They are more convenient than pin-hole indexes, and mistakes are less likely to occur.

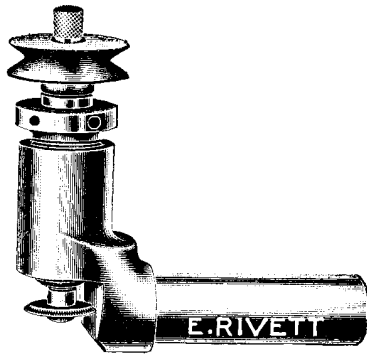
The Revolvable Tailstock fits the bed of the lathe and is secured to it with the same firmness as the headstock. The upper part is made to fit the Slide Rest. The upright is so graduated that it can be set at any angle required, and there is also a slide with lateral feed for very fine adjustment.

When the slide rest is to be used with the wheel cutting attachment the handle of the bottom slide is to be changed to the opposite end before mounting it on the revolvable tailstock.

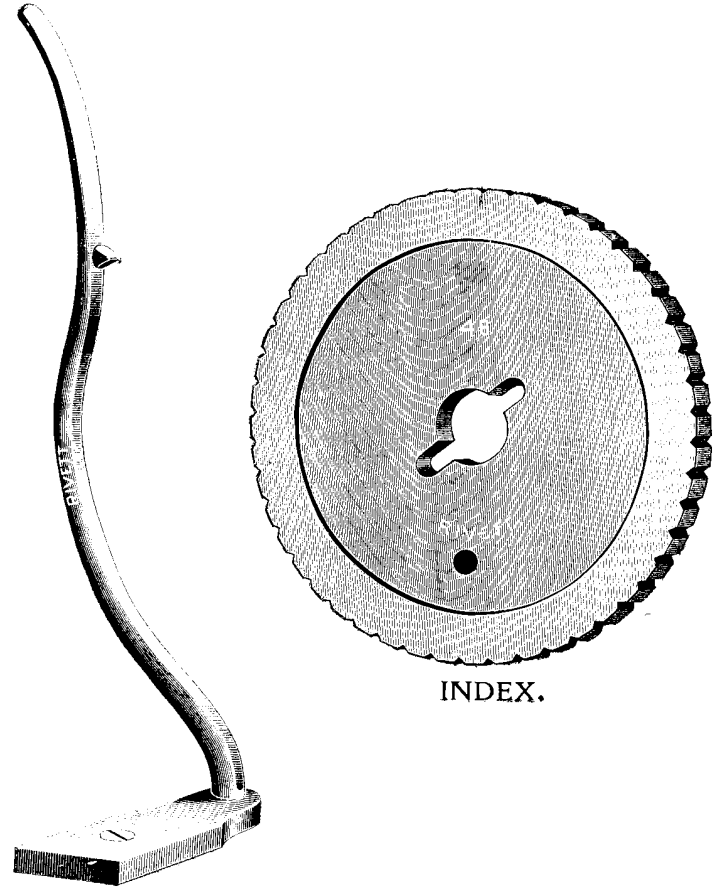
No extra belting, pulleys or countershafts are needed, and we claim that it is without exception the best attachment there is for cutting wheels.



"RIVETT SPECIAL" SLIDE REST. Price, \$17.50.



"RIVETT SPECIAL" WHEEL CUTTING ATTACHMENT.
Price, \$23.00.



INDEX PAWL.

“Rivett Special.”

Slide Rest and Wheel-Cutting Attachment.

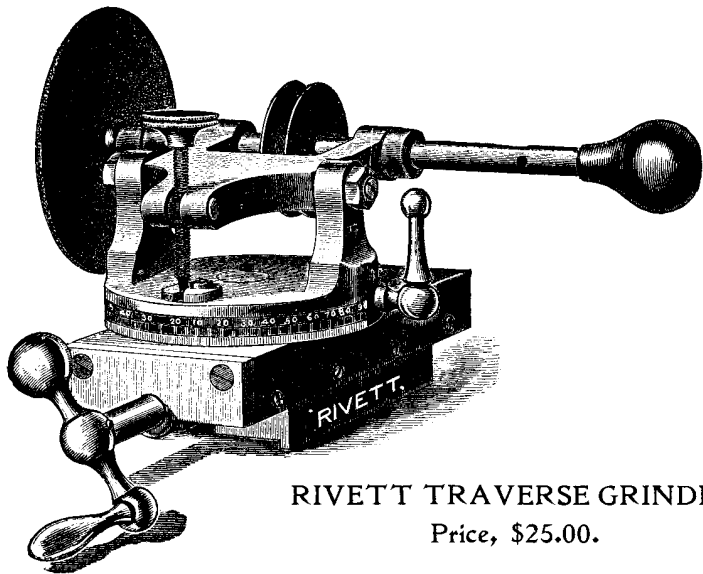
THE “Rivett” Slide Rest needs no introduction, as it is well known to the craft as the best of all the “Rivett” attachments, and has done more than any other attachments to bring the “Rivett” tools to their present high standard.

In response to a large demand for a good low priced Slide Rest, we tender the “Rivett Special” to the trade. This Slide Rest is made under the same patents as the “Rivett” but is a little smaller in size. For turning, and all regular slide rest work, it is just as good as the higher priced one, and will do heavier work, without chattering, than any other American or imported make, owing to the rigidity of its built.

The Slide Rest is the most useful of all the attachments to a lathe, as it can take the place of the Jeweling Rest in a large measure, in addition to fulfilling its own special duties.

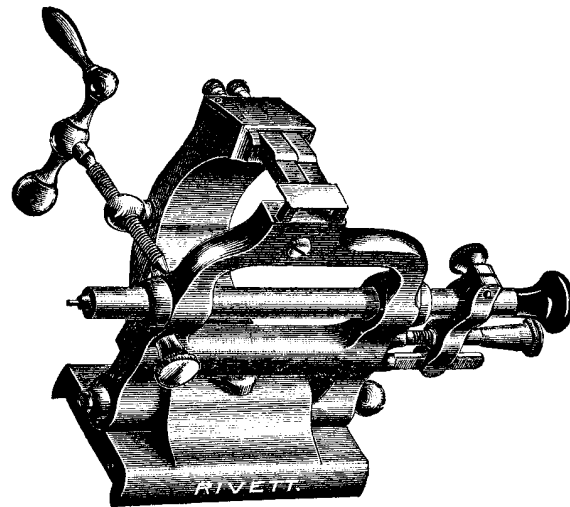
The “Rivett” Pivot Polisher fits this Slide Rest.

The Wheel-Cutting Attachment shown on the opposite page is similar to what other makers use. It is a very good attachment for a man who has not much of this kind of work to do, and a very useful article for a low price. This is the same style of attachment on which are made some of the finest watches in this country.



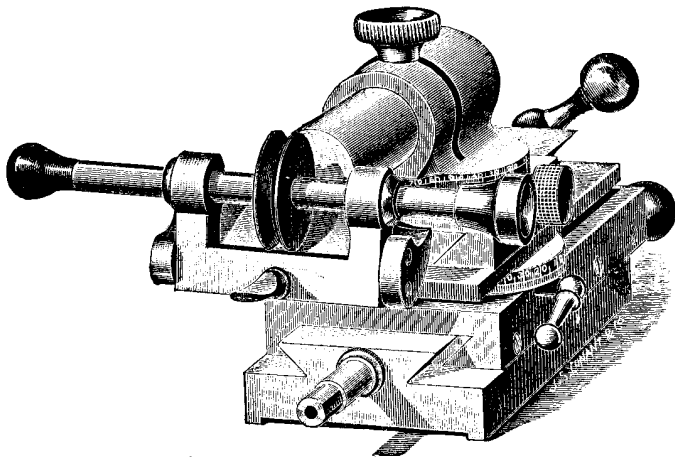
RIVETT TRAVERSE GRINDER.

Price, \$25.00.

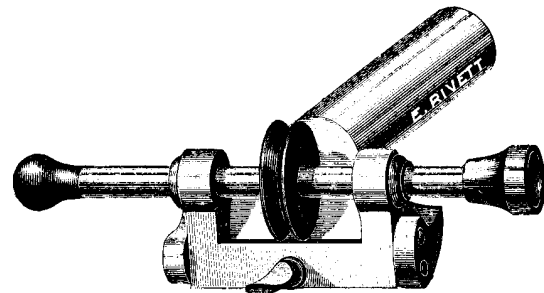


RIVETT JEWELING CALIPER REST.

with cross feed screw. \$30.00.



RIVETT SLIDE REST WITH PIVOT POLISHER.



RIVETT PIVOT POLISHER.

Price, \$13.00.

Rivett Traverse Grinder.

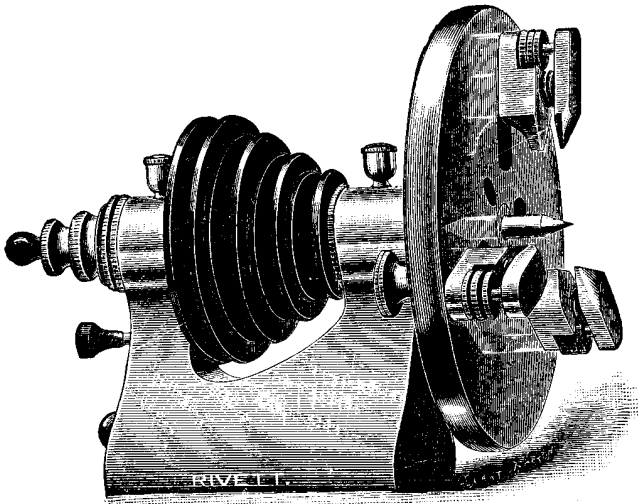
THIS Grinder goes on the shoe same as the slide rest. The slide will move $1\frac{1}{2}$ inches. The circular base is graduated so as to set the spindle at any desired angle. The traverse spindle is adjustable above or below the center, which is necessary in a great many different kinds of work. This attachment will be found indispensable for grinding cutters, reamers, counter-sinks; squaring-up barrel arbors after hardening, or any hardened steel work. In the hand of an ingenious workman it will be found exceeding useful.

Rivett Jeweling Caliper Rest.

The Jeweling Rest is for setting Jewels in plates or settings, and is useful for counter-sinking screw-heads, recessing plates, and for all kinds of fittings, such as opening wheels for pinions, or bushings, turning barrel heads, etc. The cross-feed screw is so fixed on a swivel that it will swing out of the way when not in use. If you will compare this Jeweling Rest with other so called "Improved Tools" you will see that there is more rigidity in ours than in those which have come on the market since we first made this tool. Anybody contemplating the purchase of a Jeweling Rest should try ours along side of one of the so called "improved" tools and let them tell their own story.

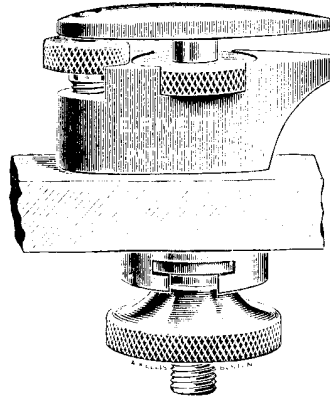
Rivett Pivot Polisher.

This attachment sits into the top of the Slide Rest. The two graduated bases on the slide rest, and the different angles at which the Polisher can be set, give it more adjustment than any other tool made for the same purpose. We have a movement which is absolutely necessary for snailing a plate, or stem-winding wheel, etc., which no other Pivot Polisher has. Though it is a low-priced attachment, we guarantee it will do more and better work, and is more easily adjusted, than those costing three times the price of ours.

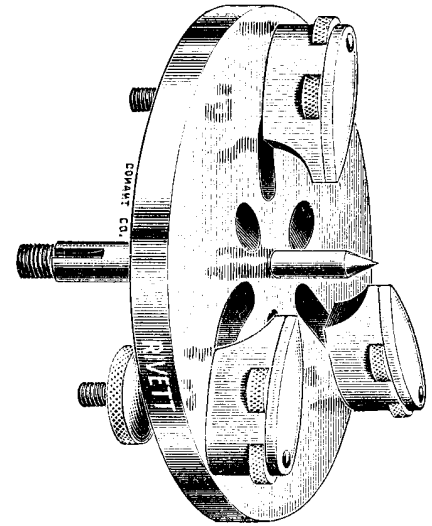


UNIVERSAL HEAD.

Made only with Solid Nickle Plate and Patent
Jaws, Price, \$25.00.



IMPROVED PATENT JAW.



UNIVERSAL FACE PLATE.

Made only with Solid Nickle Plate.
Price, with Patent Jaws, \$14.00
“ “ Plain Jaws, 9.00.

We noticed in a recent visit to a large foundry that the makers of other Face plates were having the holes cast in the plates, and we would call particular attention to the fact that Cast Iron plates cost 3 cents each, while ours made from solid nickle such as the best watches are made of, cost about \$1.00 each; and the holes which are cast in, cannot be as true as ours which are milled from the solid stock.

We are trying to give the craft the best that we can, and in this have done more than any other manufacturer.

Rivett Universal Head.

IN the Rivett Universal Head the spindle is made the same as our regular lathe head spindle, of the very best tool steel, hardened, and ground by a machine especially made for this work. We believe that ours is the only Universal Head made with hardened and ground spindles and bushings.

The pump center is fitted with a light spring, and the face-plate has three peep holes, tapering towards the back, which makes it easy for the watchmaker to see around the pump center to examine his work. It is considered by all who have used it to be a great improvement over all others.

Our Plates are all of solid nickle, so there is no plating to peel off, and they do not rust; they are stronger than cast iron, have a nice appearance and are always true. The nickle for these plates is made especially hard and the crescent holes are not cast but are milled true by gauges.

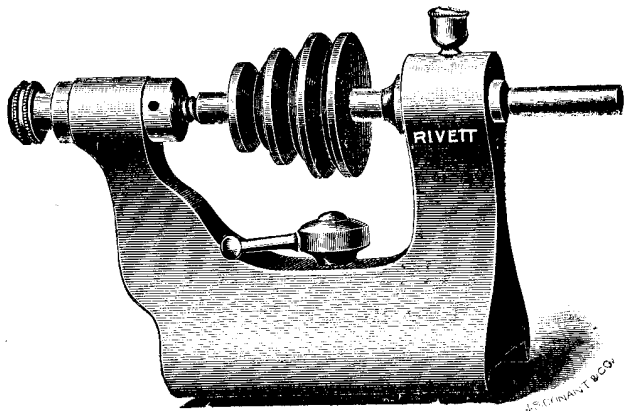
Patent Jaw.

One improvement in our Patent Jaw is that we do away with the spiral spring, the thumb screw is grooved and runs in a T-slot in the sleeve of the lower jaw, which enables it to be thrown in and out without any trouble.

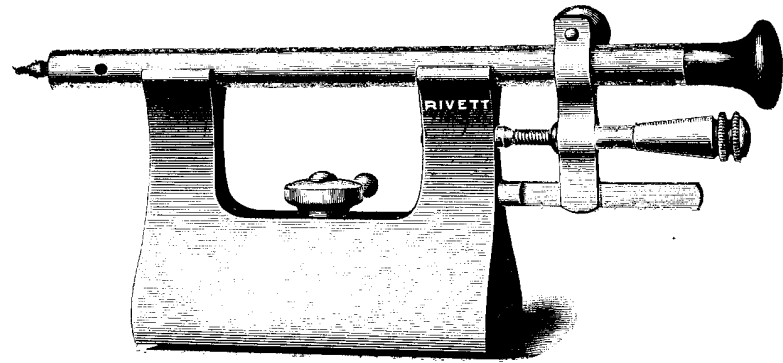
Another is that we can bind the lower jaw to any position on the plate, with the thumb nut in the center of the jaw, which holds it firm and steady. This improvement will be found of great advantage when it is necessary, as it frequently is, to take out and replace the watch-plate a number of times.

Rivett Universal Face Plate.

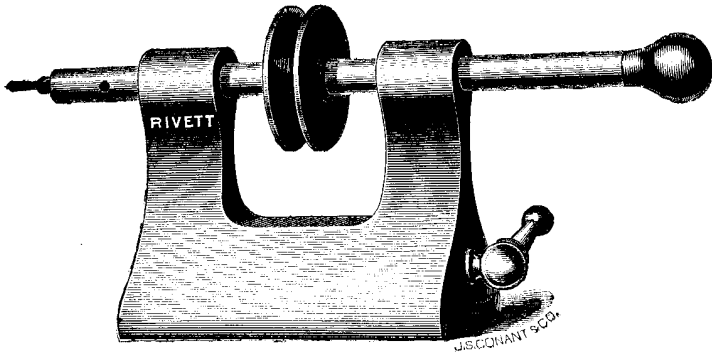
The Rivett Universal Face Plate is mounted on a hardened steel chuck, and the utmost care taken in its manufacture; though the plate mounted on a chuck is very delicate, and even when once made true, any little accident is liable to knock it out, so that no manufacturer can guarantee a plate to stay true. This is why, as an inducement to watchmakers to use it instead of the plate, we make the price of our Universal Head so low, as it is more satisfactory both to the user and to ourselves.



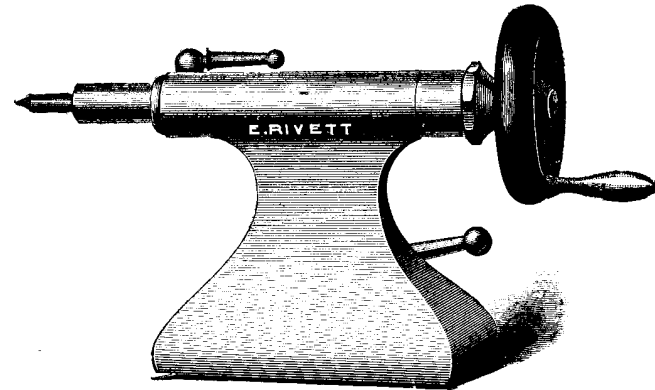
RIVETT JEWELING HEAD. Price, \$16.00.



RIVETT HALF-OPEN TAILSTOCK. Price, \$11.50.



RIVETT TRAVERSE SPINDLE TAILSTOCK.
Price, \$10.50



RIVETT SCREW TAILSTOCK. Price, \$13.00.

Rivett Jeweling Head.

THIS head is similar to those used in watch factories for making jewels, and finishing pivots on the balance staff. Great speed is necessary for the manufacture of Jewels. This tool is so constructed that it develops a very high rate of speed, with but little outlay of power.

Rivett Half=Open Tailstock.

The bearings of this Tailstock are cut away so that the spindles can be laid in, instead of passing through the holes; this is convenient when a number of spindles are to be used for drilling, cuampfering, tapping, etc.

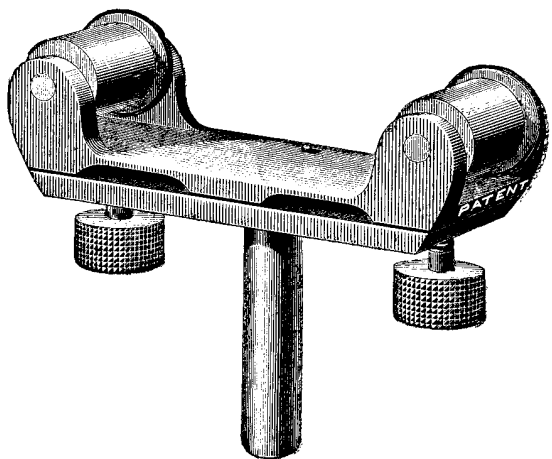
Handy for watchmakers who manufacture specialties. Works very rapidly.

Rivett Traverse Spindle Tailstock.

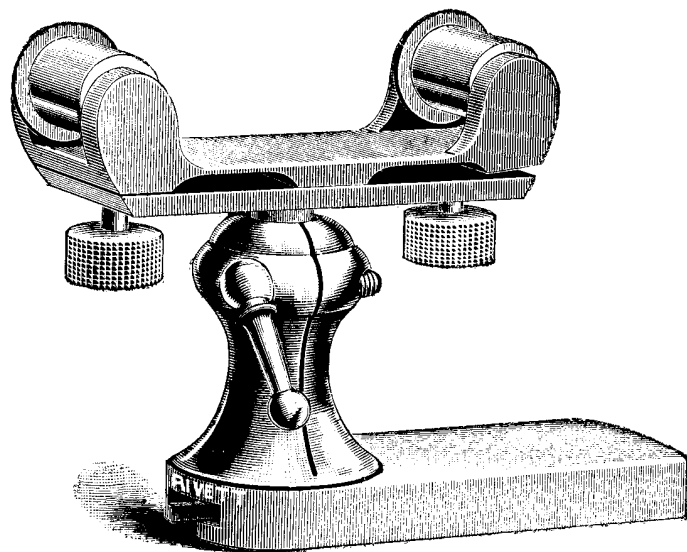
Very convenient for straight drilling, where any one has a great deal of drilling to do it will prove invaluable.

Rivett Screw Tailstock.

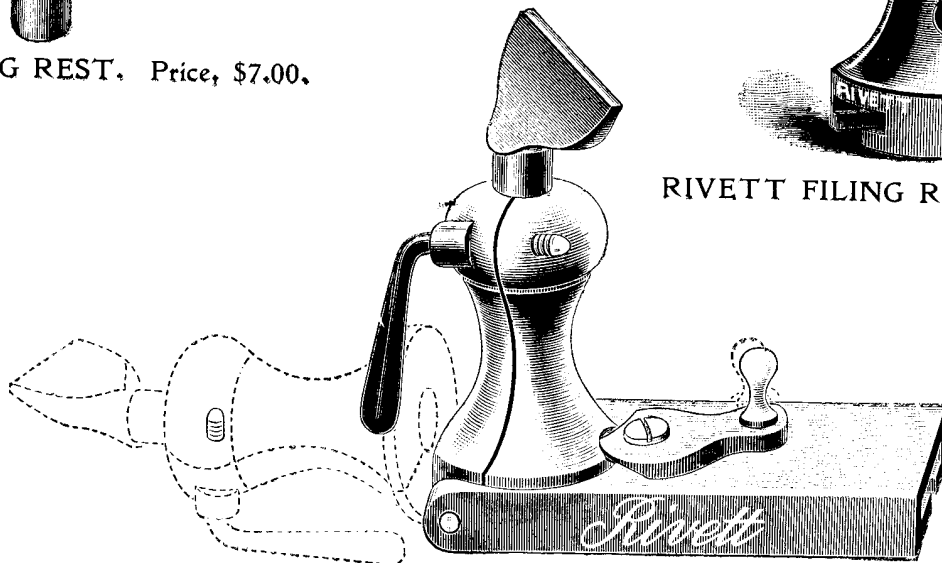
The Screw Tailstock is used for heavy drilling and turning, the spindle being moved by a screw.



RIVETT FILING REST. Price, \$7.00.



RIVETT FILING REST IN POSITION FOR USE.



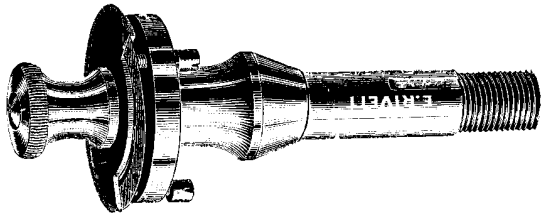
TIP-OVER T-REST. Price, \$3.00.

Rivett Filing Rest.

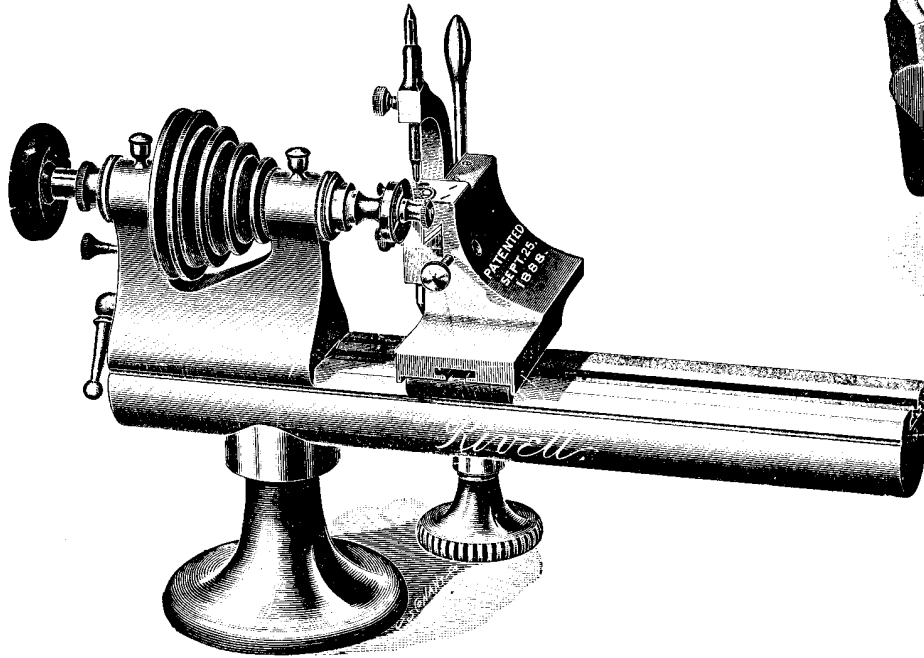
THE Rivett Filing Rest for squaring barrel arbors, etc., is held in the same manner as the T in the Hand Rest. The rollers are made of the best tool steel, hardened and ground, running in small center, causing the rollers to revolve freely under the file. The adjustment is more complete than any other rest in the market, being adjusted by a thumbscrew at each end of the rest. Glazing can be avoided by lowering the front roller by means of the thumbscrew underneath.

Rivett Tip-over T-Rest.

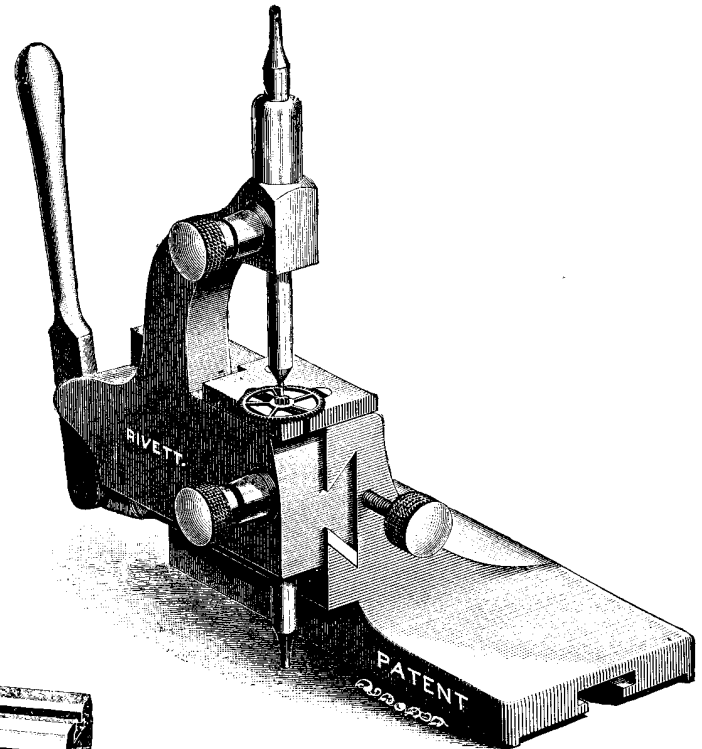
The Rivett Tip-over T-Rest still holds its place at the head of all the numerous Tip-over T-Rests which closely followed its introduction to the trade. The ease with which it can be adjusted, the wide swing when tipped over,—a swing of 180 degrees,—and the facility with which it can be cleaned, make it a general favorite. A single wipe of the finger is sufficient to dislodge any chips that may fall upon it, as there are no corners or nicks in which they could catch, and thus make trouble. The Tip-over T-Rest is a great convenience, nay, even a necessity, when work has to be tested or gauged often.



RIVETT SCREW GUIDE CHUCK. Price, \$4.00.



RIVETT ROUNDING-UP TOOL, in position for use.

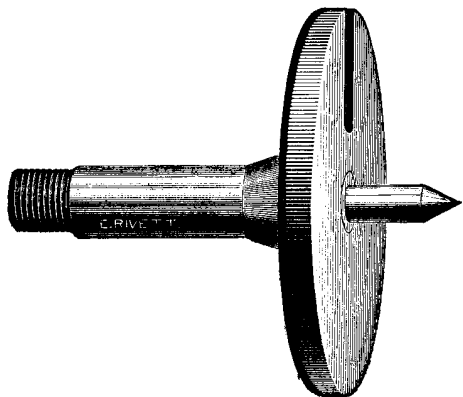


RIVETT ROUNDING-UP TOOL.
Price, \$20.00.

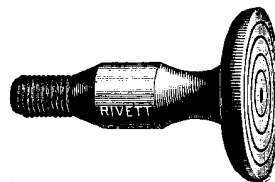
Rivett Rounding-Up Tool.

THE cuts on the opposite page show the Rivett Rounding-Up Tool, with a wheel set in the tool to be rounded up. It sits on the shoe in the same way as the slide rest. The thumbscrew in front is to adjust the feed. The two centers are kept in place by thumbscrews on the side. The table has a slot, which allows all size wheels to be rounded up without the use of collets. The groove in the front of the table is the center mark; and when this is set to the center of the cutter the tool is ready for work. One side of the table is screwed solid to the base, and the other supported by the slide, which makes it perfectly solid. The table is made of tempered steel, and highly polished which allows the wheel to be rounded up without defacing or scratching it.

It will be seen by the cut that this Rounding-up Tool can be adjusted for work in less than a minute, and no extra belts or pulleys are used. It is most convenient and simple in its use. Watch-makers cannot afford to be without it.

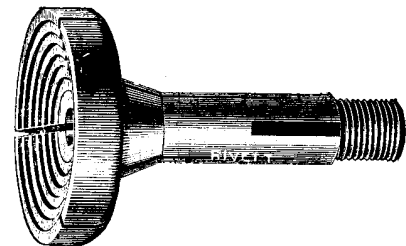


CHUCK WITH FACE PLATE.
Price, \$2.75 each.

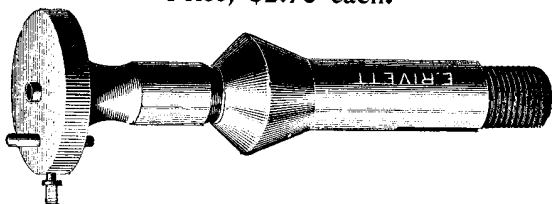


BRASS CEMENT CHUCKS.

1/4 inch	.45	per dozen.
1/2 "	\$1.25	" "
3/4 "	2.15	" "
1 "	3.00	" "



WHEEL CHUCK.
Price, 75 cents each.



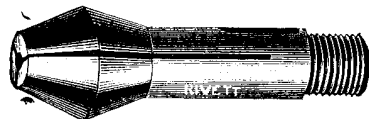
CHUCK WITH JEWEL CENTER.
Price, \$3.50 each.



DOG WITH BLANK STAFF.
Small 65 cents each.
Large 85 " "



WIRE CHUCK.
Price 75 cents each.



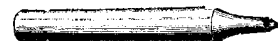
SOFT STEEL JEWELING CHUCK. Price, 45 cents each.



MALE CENTER. Price, 25 cents each.



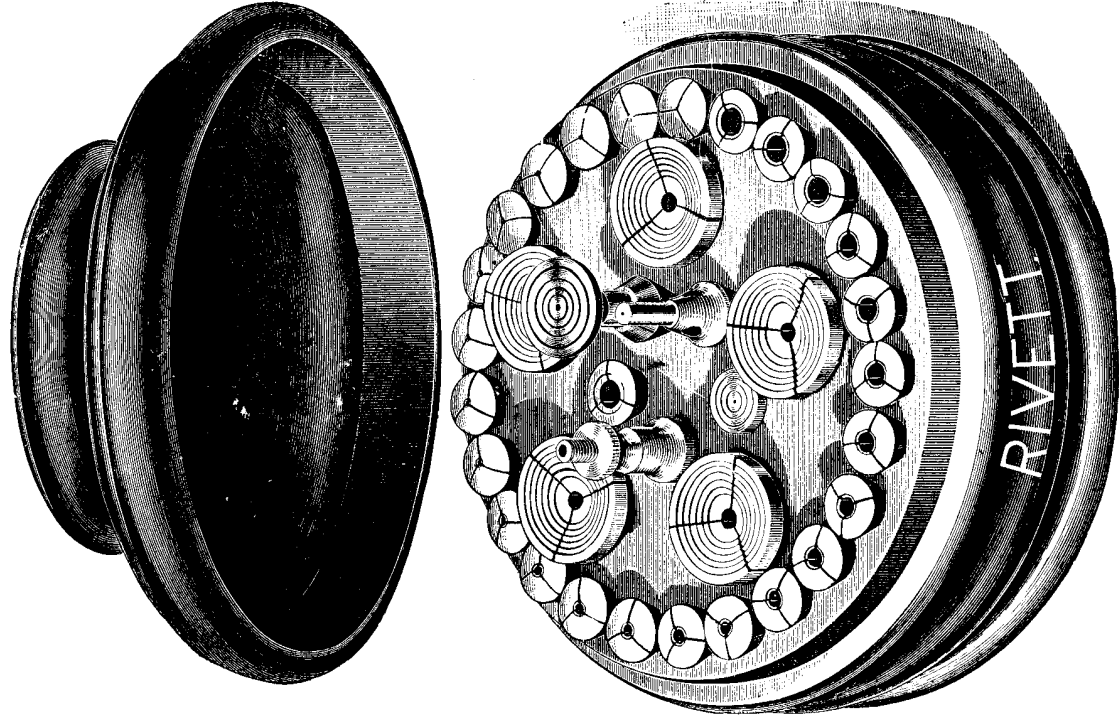
CENTER PUNCH. Price, 15 cents each.



FEMALE CENTER.
Price, 25 cents each.



PIN VISE, to fit handle or tailstock spindle. Price, \$1.25 each.



RIVETT CHUCK BOX AND COVER. Price, \$1.00.

We do not step our hardened wire chucks, for the reason that the chuck cannot be made so good and true for its own special work when stepped, and the step cannot be made true, no maker of stepped hardened chucks pretends to grind the steps, and if they did could not make a good square corner; we have therefore got out a set of soft steel chucks for jewelers, and do not step the hardened chucks at all, which leaves them in good shape for their own particular work.

Use of Chuck Table.

The Rivett Chucks are graduated by .001ths of an inch, so that a more even graduation in the sizes can be made than is possible on the "Stubs" gauge, as every makes of "Stubs" wire varies the size a little, and so that we can put more chucks on the smaller sizes where they are most needed.

We believe no wire-maker pretends to draw wire closer than .0005 inch and when watchmakers use wire, they only use it for roughing out, and not as finished work, so that the exact size does not matter so very much. Manufacturers make and dealers keep wire drawn to the "Stubs" sizes or to the decimals of an inch, and though other chuck makers say, "It would be better if watchmakers ordered their wire by the Metric System" it would not be so, as the dealers do not have the wire made that way and know nothing about the metric sizes.

Below is a cut of the "Stubs" gauge which will assist watchmakers in ordering Chucks and wire, as they can find what size they want and then by the table opposite find its equivalent in the "Rivett" Chucks, decimals of an inch, or in the Metric System.

Example.—If you want wire to fit a No. 65 chuck, order No. 69 "Stubs" steel, or steel .029 inch.

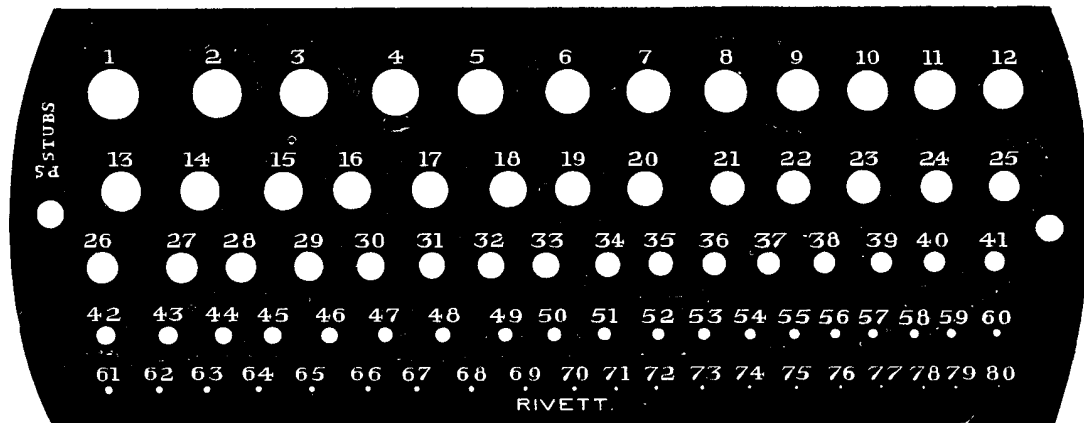


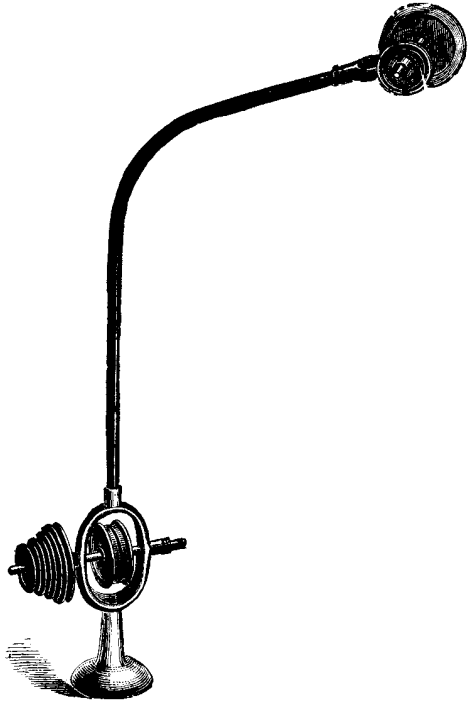
Table of Jeweling Chucks.

NAME OF JEWEL		18s.	16s.	6s.	0s.	NAME OF JEWEL		18s.	16s.	6s.	0s.	
Elgin		3	7	7	10	Columbus, Bar-holes		2		5		
"	No. 72 Train		1			"	C. & F.	5		9		
"	" 72 Center		3			N. Y. Standard, Train		3	6	8		
"	" 91 "		4			"	" C. & F.	6	6	9		
"	" 91 Train		5			"	" End Stone	6	6	9		
"	" 122 Center Upper			3		E. Howard,		14s.				
"	" 122 Center Lower			9		"	N. & L., Lower Plate	4				
"	" 122 Train			3		"	" Balance	8				
"	" 112 Upper Center				8	"	Upper Plate	5				
"	" 112 Lower Center				10	"	Balance Plate		9			
"	" 112 Train				7	"	Lower Plate		8			
"	Largest, C. & F., End Stone	4	7	9	10	Seth Thomas, Upper, Train		4		8		
"	Smallest, C. & F., End Stone	4	7	9	10	"	" 3-4 Balance	5		8		
Waltham		5	5			"	" Full Plate	7				
"	Center		2	5	5	"	" " Center N. S.	2				
"	Balance			10	10	"	" Lower Train	4		4		
"	Train			8	8	"	" 3-4 Plate Center	6				
"	O. M.	6				"	" Full Plate Center	3				
Walthams, 8s. old		7				Trenton, Upper		6				
"	6s. "	9				"	Lower	6		9		
Rockford, 3 and 4				7								
"	Scape and Pallet	3		7								
"	Balance	6		9								
"	Model	5		5		Waterbury	Top Balance	8	4	3	3	4
Hampden, Upper Plate, old		3	5	5		"	Lower Balance	8	3	3	4	3
"	Upper Plate, new	5				"	Cap	8	4	3	4	3
"	Lower Plate, new	5	5	9		"	End Stone		9			
"	Balance, plain spg.	5	5	10		"	Lower Escape	3		4		4
"	Balance, Breguet	8	8			"	Top Escape	8		8		8
Illinois, Plate, lower		4	7	14, 8, 6, 4 all same size						6s.		
"	" top	1	7			"	Top Balance				8	
"	C. & F.	4	9			"	Lower Balance				8	
"	Breguet Balance	7				"	Top Escape				8	
Hamilton, Bar		2		7		"	Lower Escape				3	
"	C. & F.	6		9		"	Cap				8	

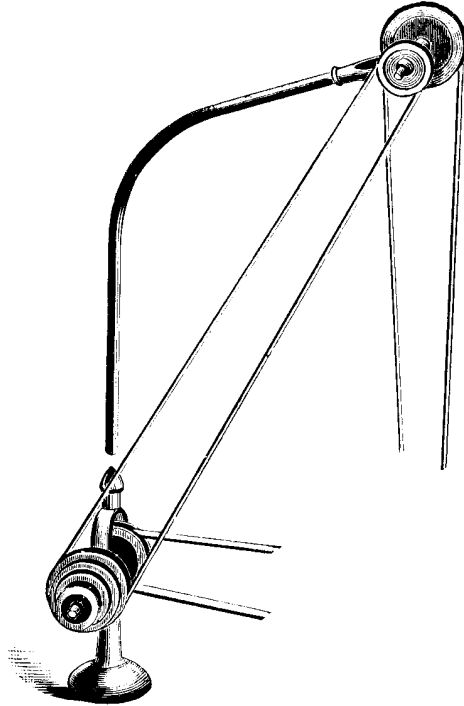
Rivett Jeweling Chucks.

THE Rivett Jeweling Chucks are of the same style as are used in the watch factories for holding and setting Jewels. A full set comprises ten chucks, which have sufficient range in size to cover all the various sizes of watch jewels. These chucks are a great improvement over the old way of stepping the hardened wire chuck, for being soft, the watchmaker can adjust the step to suit himself, turning it deeper or larger to suit any particular work he may have on hand. In the old way no step was true with the hole in the chuck, as the hole was ground, while nobody pretended to grind the step, and if they had it would have been almost impossible to get a square corner.

On the opposite page we give a table showing what chuck is to be used for any jewel, the figures in the column under the size of the movement and opposite the name of the jewel shows the size of the jeweling chuck to be used.



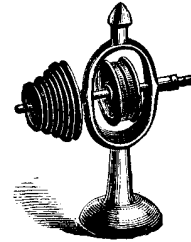
RIVETT COUNTERSHAFT,
with Overhead Attachment.
Price, \$12.00.



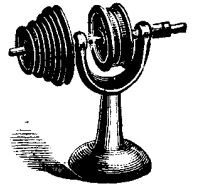
RIVETT COUNTERSHAFT,
Showing Method of Belting.



OVERHEAD ATTACHMENT.
Price, \$5.00.



Rivett Countershaft.
Price, \$7.00.



Rivett Single Stand
Countershaft.
Price, \$4.50.

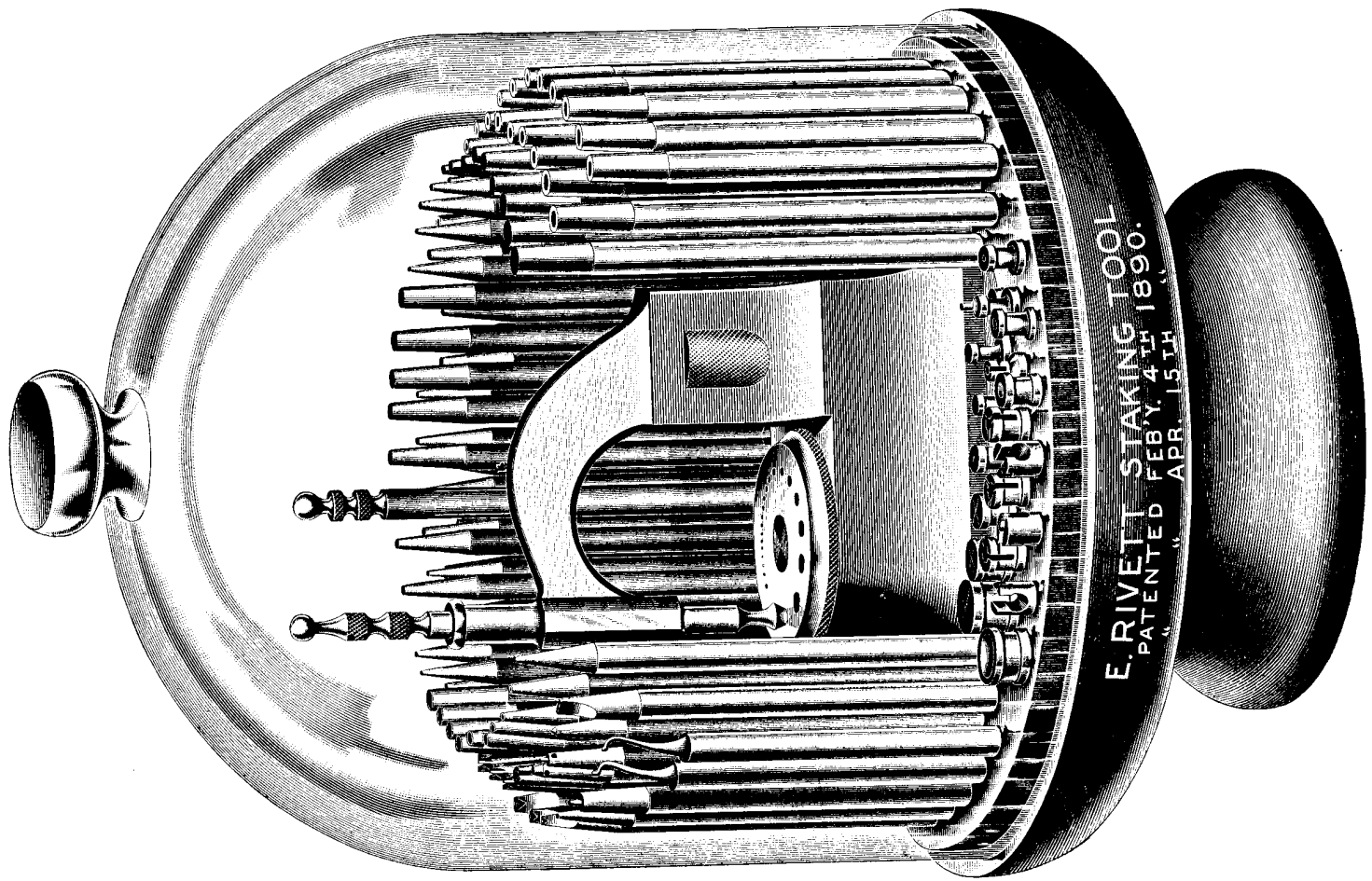
Rivett Countershafts.

THE Rivett Countershaft is simpler than any other and with the overhead attachment more complete. The overhead attachment fits into a taper hole in the upper part of the countershaft, as shown on the opposite page, and when not in use the hole is covered by an ornamental cap. In polishing pivots the short belts that are used with other countershafts are very annoying, they run direct from the countershaft at the back of the bench to the idler pulleys on the pivot polisher; it is impossible for them to allow of the necessary twisting to set the polisher at any angle, and the use of idler pulleys is really a detriment to the smooth running of the pivot polisher.

In the Rivett Overhead Attachment, the belt is carried direct from above to the polisher spindle, thus allowing all the twisting that is necessary to put the polisher at any angle and insuring a perfectly smooth running belt.

The Single Stand Countershaft.

Is made on the same plan, except that it has no means for holding the overhead attachment. For watchmakers who do not use the pivot polisher or other traverse attachments it will answer the same purpose as the other and the price is lower.



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RIVETT STAKING TOOL.

100-Punch Staking Tool, Price, \$20.00. 54-Punch Staking Tool, Price, \$13.00.

.... THE RIVETT STAKING TOOL

STAKING Tool making is an art. Its development calls not only for constant study, but for capital, experience, skill and foresight. In the "RIVETT" these elements have been bent toward the production of a Staking Tool which should be in every detail all that the most critical operator could desire.

When Edward Rivett of the Faneuil Watch Tool Company commenced to make Staking Tools his one aim was to make the best that human ingenuity guided by the highest mechanical training, and practical experience of twenty years could possibly produce, and since that genesis of the extensive manufacture of the Faneuil Watch Tool Company, they have spared no expense to make the best still better, whenever an opportunity has occurred. The eye for improvement is always open, and being thus constantly inspired by the spirit of progress this company presents with that unwavering confidence which is born of success—the Rivett Staking Tool of to-day. Improved machinery is constantly being introduced, and this aids not a little in keeping their tools at the head of the line of progress. We were the first to get out a 100 punch Staking Tool, the others have followed and copied the number of punches, but have not succeeded in getting out any of the new and useful styles of punches which characterize our tool.

The Faneuil Watch Tool Company in conclusion beg to say that the Rivett Staking Tool is not a toy, made for amateurs or inexperienced workmen, but is an instrument especially designed to assist the learned operator in the finest work. We would greatly prefer that the former, as a purchaser, would pass our Staking Tool by, and even though our sales might be slightly reduced, we would appreciate as a result that our manufactures would go only into the hands of those, who by their own skilled knowledge recognize the merits of our tool and know how to use it.

FRAME, of solid cast iron, best quality and symmetrically shaped, is so designed that it will receive a blow on the stake, with absolutely NO VIBRATION. There are two patents granted on this tool, one on the design, which is remarkable for its strength, and the other on the binder in the back of the tool for fastening the die plate. The tool is nicely finished and completely nickel plated.

DIE. $1\frac{1}{2}$ inches in diameter, a size which enables the operator to close a hole in the largest plate with very little trouble. It revolves in the frame, on a bolt in the center, and is held firmly in place by simply turning the knurled nut in the back of the frame, with the forefinger and thumb. This die is larger, and has more holes than any other on the market; there being twenty holes, varying from No. 17 to 80 on the Stubs' wire guage. They are hardened in a special solution which makes them very strong and hard, and are finished with a mirror polish.

BINDER. The binder in our tool is patented, and the firmness with which it holds the die is a matter of congratulation. If the watchmaker will examine any other staking tool binder, he will find that after a few good consecutive blows, the die will be found to have moved as the binder is not sufficiently strong to hold it firm.

PUNCHES. The steel for our punches is especially made for and imported by us, and in order to make it an especial object for the steel makers to make it very carefully, and with the least possible variation, we have to order it in large lots of about two tons, and in this way we get more uniform wire than anybody else. Our punches are all drilled by hand, and hardened one by one, the heat is so arranged that the punches cannot get

overheated, so that they are all hardened just alike. The special use of the different punches, which are all carefully graded, will be explained further on. There are 100 punches in a full set. Heretofore the price of the punches has been uniform, but as some are more easily made, than others, we have thought that we would give our customers this benefit, and so have graded the price of the punches according to the cost. Dealers will keep a full set of punches on hand, and they can be ordered by the number, which is stamped on each punch.

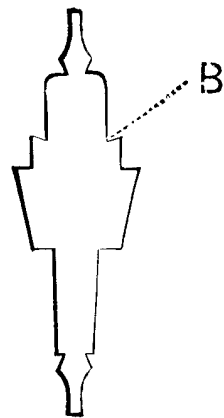
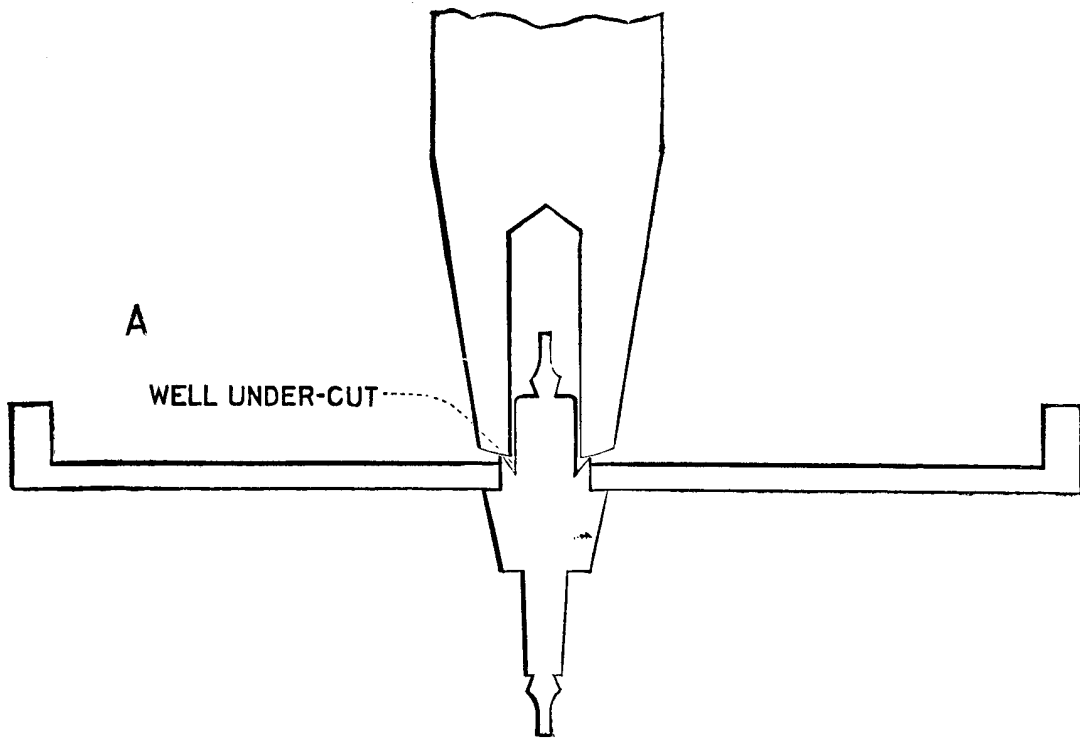
Every punch is Stamped "Rivett," and numbered with its own size so that it is easy to order duplicates when any are lost or broken.

STUMPS. There are twenty stumps which fit into the largest hole in the die; they are made of the same steel as the punches, and are all graded carefully and made for their own special purpose, which will be explained in the succeeding pages.

WOODEN STANDS. Our new stands are made to hold 100 punches and 20 stumps, and we shall furnish these stands with our Staking Tool of 54 punches, as well as with the tool of 100 punches; so that the watchmaker may add to his stock of punches at his leisure, and still have a place to keep them. The stand is only $\frac{1}{4}$ inch larger in diameter than the old one, so that it is not clumsy nor does it take up much more room on the bench.

SHADES. We do not guarantee our shades beyond delivery to the express companies, they are not guaranteed to us, and no glass company will guarantee the safe delivery of glass goods by express companies. Our shades are all well packed, but packages should be opened immediately on receipt of same and claim be made to the express company for any breakage.

..... THE RIVETT STAKING TOOL



BALANCE STAFF AND PUNCH IN POSITION FOR STAKING.

..... THE RIVETT STAKING TOOL

EXPLANATIONS OF STAKING ON BALANCE STAFFS.

THE most difficult work a watchmaker has to do with a staking tool is to take off and drive on a balance wheel properly, because as all educated watchmakers know, if a balance arm has once been stretched it can never be put back again, or trued up properly.

We have had the cuts on the opposite page made from rough sketches to facilitate our explanations.

















In turning a staff for a balance it should be made to fit so that the balance can be just pressed on with the tweezers. The length of the projection beyond the balance should be just about one-tenth of the thickness of the arm; or one and a half thousandths of an inch. This projection should be well undercut as shown at A on opposite page.

Select a hollow round faced punch that fits the collet shoulder of the staff freely, and hold it resting in the tool with the thumb and forefinger of the left hand at the top, and with the little finger on the rim of the balance, keep turning it as you hammer with very light blows until the projection rolls over, then use a flat punch to finish. If the undercut is properly turned and of the right length, very little hammering will serve to clinch the rivet to the balance very firmly. In staking on all other wheels and pinions the same undercut should be made. The great objection to buying staffs is that very often the stake is much too long and very little undercut, as shown at B; and care should be taken either to pick out one that is right, or to turn it down to the right length and undercut it properly, as this is just as important as any other part of the staff. When taking the balance from the staff the operator should first turn off the stake very carefully before attempting to drive the wheel from the staff. If this is done with care there will be no danger of stretching or otherwise injuring the balance wheel, as there is in forcing it over the stake.

..... THE RIVETT STAKING TOOL -----

SIZE OF PUNCHES ON STUBS' WIRE GAUGE. (EXTREME END.)

Outside Diameter	75	72	70	56	49	40	30	20

								
Order Punches by Number.	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9
Outside Diameter	31		70	60	30	40	31	23
Inside "			80	80	62	56	53	49
								
Order Punches by Number.	No. 10	No. 11	No. 12	No. 13	No. 14	No. 15	No. 16	No. 17

NO. 1. SET PUNCH.



FULL LENGTH OF PUNCHES.



..... THE RIVETT STAKING TOOL.....

1 SET PUNCH. This punch is to be used only for centering the die, and should be used for no other purpose, as it is very delicately ground for its own particular work. Price, 30c. each.

2 CYLINDER PUNCHES. These are a new style of cylinder punch made only by us, and are forged to shape by special machinery at great expense. The advantage of these punches over the old style is their great additional strength. Beware of imitations. Price, 30c. each.

1 BROKEN SCREW REMOVER. Hold the punch firmly against the screw and give one good solid blow, so as to remove it the first time; this is on the same principle as punching a hole in a large steel plate, a heavy blow is better than a light one, and the punch will stand better if used in this way. This punch should be used only for small screws. Price, 25c. each.

5 HALF-OPEN HOLE CLOSING PUNCHES. These will be found invaluable for freeing and uprighting holes in plates. Price, 25c. each.

1 PEEN PUNCH, for closing, stretching, and forging purposes. Price, 25c. each.

1 PRICK PUNCH, for centering for fine drilling, etc. Price, 25c. each.

























2 CROSS HOLE PUNCHES, for removing staffs from balances, and fine escape pinions. Price, 25c. each.

1 ROLLER PUNCH, for driving on rollers. Price, 25c. each.

3 CENTER WHEEL PUNCHES, such as are used in the watch factories, for staking center wheels on patent pinions. They will be found indispensable when the watchmaker has once learned their use. These punches should not be turned round gradually like the other punches; they should be turned only once, so as to make but eight marks. Price, 30c. each.

..... THE RIVETT STAKING TOOL


SIZE OF PUNCHES ON STUBS' WIRE GAUGE. (EXTREME END.)

Outside Diameter	63	61	60	59	58	56	54	52	51	49	47	45
Inside	80	79	78	77	75	74	73	72	70	66	64	62
	•	•	•	•	•	•	•	•	•	•	•	•
												
Order Punches by Number.	No. 18	No. 19	No. 20	No. 21	No. 22	No. 23	No. 24	No. 25	No. 26	No. 27	No. 28	No. 29
Outside Diameter	44	41	38	35	33	28	25	23	19	16	13	9
Inside	61	57	56	55	54	53	52	51	49	45	40	38
	•	•	•	•	•	•	•	•	•	•	•	•
												
Order Punches by Number.	No. 30	No. 31	No. 32	No. 33	No. 34	No. 35	No. 36	No. 37	No. 38	No. 39	No. 40	No. 41

..... THE RIVETT STAKING TOOL

24 ROUND FACED HOLLOW PUNCHES, for staking balances, pinions on wheels, staffs, etc. Price, 20c. each.



























This punch should mostly be used first, when staking staffs and pinions on wheels, so as to roll the riveting stock over on to the wheel; a flat faced punch may be used to advantage in finishing.

In staking on pinions most watchmakers have had the experience of upsetting the opposite end of the leaves, when the pinion was not properly hardened. This fault can be overcome, and the danger of upsetting the opposite end easily obviated, if the staking shoulder is sufficiently undercut, as shown on page 6, and a punch like the one shown herewith  be used with light consecutive blows.

Many think that in staking on a pinion, that they should use a perfectly flat punch, so as to cover the whole staking shoulder at once, but this is not so, and much better work will be accomplished by using a punch like the one shown above. On very delicate work, such as fine escape wheel pinions, where the surface of the opposite end is not much larger than the end to be staked on, a punch of this kind would do much better work than if it were striking the whole surface at once, and when a watchmaker has one of these delicate jobs it will pay him to grind off a punch in this way on his emery wheel. One-quarter of the stock should be taken from each side. We have made several of these punches for watchmakers who have had trouble in staking, and in every case they have been very much pleased with them.

..... THE RIVETT STAKING TOOL

SIZE OF PUNCHES ON STUBS' WIRE GAUGE. (EXTREME END.)

Outside Diameter	65	63	61	60	59	58	56	54	52	51	49	47	45
Inside	80	79	78	77	75	74	73	72	71	70	66	64	62
	◦	◦	◦	◦	◦	◦	◦	◦	◦	◦	◦	◦	◦
													
Order Punches by Number.	No. 42	No. 43	No. 44	No. 45	No. 46	No. 47	No. 48	No. 49	No. 50	No. 51	No. 52	No. 53	No. 54
Outside Diameter	44	41	38	35	33	28	25	23	19	16	13	9	
Inside	61	57	56	55	54	53	52	51	49	45	40	38	
	◦	◦	◦	◦	◦	◦	◦	◦	◦	◦	◦	◦	◦
													
Order Punches by Number.	No. 55	No. 56	No. 57	No. 58	No. 59	No. 60	No. 61	No. 62	No. 63	No. 64	No. 65	No. 66	No. 67

25 FLAT FACED HOLLOW PUNCHES, for purposes similar to the round faced hollow punches. Price, 19c. each.





















These punches should be used to press the wheels on pinions etc: as the punch will help to place them in proper position. They are also very convenient for pressing the hairspring collet on to the balance staff, most all watchmakers knowing the consequences of attempting to do this with the tweezers.

In pressing the arbor and canon pinion to place a flat faced punch and concave stump should be used. Take hold of the movement in the left hand. holding the center arbor over the concave stump, and press the canon pinion with a flat faced punch; if properly fitted it can be pressed on with the fingers, or a very light tap with the hammer. Flat faced punches and cup-shaped stumps will also be found very useful in putting on hour and minute hands, the hour hand should not be struck with the hammer, but the minute hand may be lightly tapped.

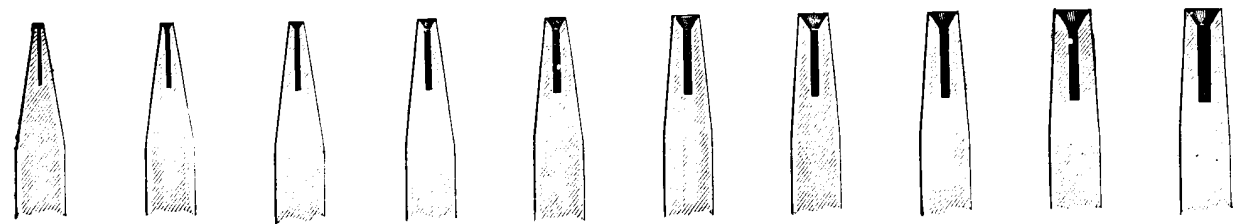
In staking, a flat faced punch should mostly be used to finish, though a round faced punch is better to start the stock rolling over to form the rivet.

. THE RIVETT STAKING TOOL

SIZE OF PUNCHES ON STUBS' WIRE GAUGE. (EXTREME END.)

Outside Diameter	67	62	55	51	46	39	33	31	28	24
Inside "	73	72	70	66	64	57	55	54	53	49
										
										
Order Punches by Number.	No. 67	No. 68	No. 69	No. 70	No. 71	No. 72	No. 73	No. 74	No. 75	No. 76

SECTIONAL VIEW OF ABOVE PUNCHES.



..... THE RIVETT STAKING TOOL.....












10 HOLLOW CONCAVE PUNCHES, for swedging, and closing holes in the bottom of hour and second hand sockets, and closing other screw holes. Price, 22c. each.














Our large assortment will be found very useful for closing holes in plates and bushings, where they want to be done uniformly all round: where the bushing or collet becomes loose, a little rap will make it tight. The lower row shows a sectional view of the holes of these punches, which are long enough to avoid danger from the punch interfering with the work.

A great many watchmakers we find think that the punch should be a tight fit in the tool; we make them only one-thousandth of an inch loose, but if they were three-thousandths of an inch loose they would stake on better than a tight fit. Even if it were possible to make them a tight fit at a reasonable price, it would not be practical, the loose one would be preferable, as that small amount of play is just what the work needs, and a trial will convince any watchmaker of this fact.

..... THE RIVETT STAKING TOOL

SIZE OF PUNCHES ON STUBS' WIRE GAUGE. (EXTREME END.)

Outside Diam.	56	53	49	45	42	35	31	29	25	19	9
	●	●	●	●	●	●	●	●	●	●	●
											
Order Punches by Number.	No. 77	No. 78	No. 79	No. 80	No. 81	No. 82	No. 83	No. 84	No. 85	No. 86	No. 87

Outside Diam.	64	60	56	53	49	45	42	35	31	29	25	19	9
	●	●	●	●	●	●	●	●	●	●	●	●	●
													
Order Punches by Number.	No. 88	No. 89	No. 90	No. 91	No. 92	No. 93	No. 94	No. 95	No. 96	No. 97	No. 98	No. 99	No. 100

..... THE RIVETT STAKING TOOL

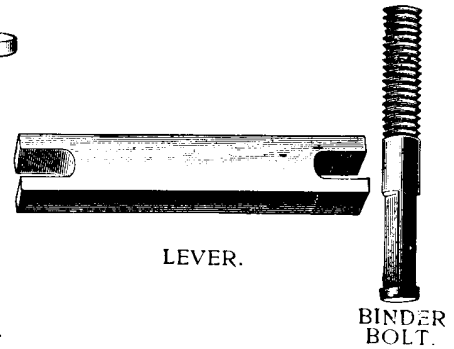
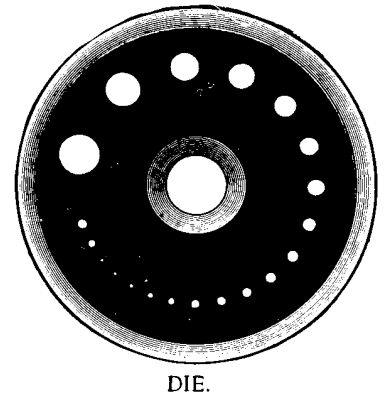
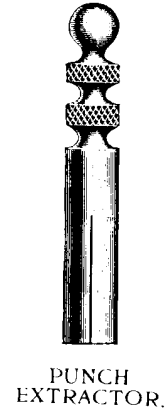
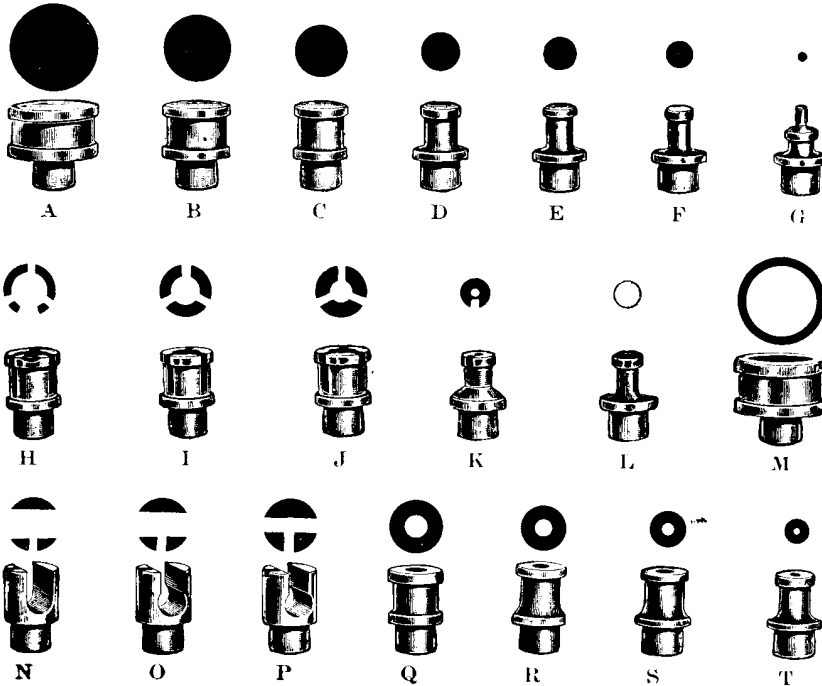
11 FLAT FACED SOLID PUNCHES, for closing pivot holes, freeing wheels, driving out large broken screws etc. Price, 15c. each.

13 ROUND FACED SOLID PUNCHES, for same purpose as above. These punches will also be found very convenient when there is no jewel, to close and leave a fine polish on the concave hole. Price, 17c. each.

..... THE RIVETT STAKING TOOL

STUMPS.

Order Stumps by Letter.



7 FLAT FACED STUMPS, for closing center holes in plates. The stumps should be chosen according to the size of the recess to be closed. Price of Stump A, 25c. each. Price of B, C, D, E, F and G, 17c. each.

3 ROLLER REMOVING STUMPS, for removing and replacing rollers in three arm balances. Price, 25c. each.

1 ROLLER STUMP, for driving roller on to balance, in some watches this stump will be found more convenient than the old way of driving it with a flat faced punch on the die. Price, 25c. each.

1 CUP SHAPED STUMP, for resting the lower end of the center arbor on, while pressing or driving the minute hand to place. Price, 25c. each.

1 LARGE HOLLOW STUMP, for bumping barrels to free their arbors, and for bending plates and bridges. Price, 30c. each.

3 ROLLER REMOVING STUMPS, for removing and replacing rollers on Chronometer balances. Price, 25c. each.

2 FLAT FACED HOLLOW STUMPS, for resting on while driving out arbors, closing center wheel on pinion etc. Price, 20c. each.

2 FLAT FACED HOLLOW CONCAVE STUMPS, for supporting the cylinder while removing the plug or pivot from same with the cylinder punch. Price, 20c. each.

PUNCH EXTRACTOR. This will be found very useful in removing the punches from the stand, and a great improvement over doing this with the tweezers. Price, 25c. each.

THE RIVETT STAKING TOOL

PRICE LIST.

STAKING TOOL, 100 Punches, 20 Stumps, with Stand and Shade					\$20.00
STAKING TOOL, 54 Punches, 13 Stumps, with Stand and Shade to hold 100 Punches and 20 Stumps,					\$13.00
STAKING TOOL, 54 Punches, 13 Stumps, Stand and Shade for 54 Punches					\$13.00
PUNCHES, No. 1 to 3, each . . . . .	\$	.30	STUMPS, A, each . . . . .	\$	.25
“ “ 4 to 14, “ . . . . .		.25	“ B to G, each . . . . .		.17
“ “ 15 to 17, “ . . . . .		.30	“ H to L, “ . . . . .		.25
“ “ 18 to 41, Ro. Face, Hollow, ea. .20			“ M, “ . . . . .		.30
“ “ 42 to 66, Flat “ “ “ .19			“ N to P, “ . . . . .		.25
“ “ 67 to 76, Hollow Concave “ .22			“ Q to T, “ . . . . .		.20
“ “ 77 to 87, Flat Face, Solid “ .15			PUNCH EXTRACTORS, each . . . . .		.25
“ “ 88 to 100, Ro. “ “ “ .17			DIES, each		2.00
GLASS SHADES, each . . . . .		.65	WOODEN STANDS, each		1.00

Price List of Combinations of Rivett Lathe, No. 2.

SIZE OF LATHES:

Length of Bed, 11 1/2 inches.

Bed to Center, 2 3/16 inches.

Swing, 4 3/8 inches.

	Rivett Steel Bed, New Style.
LATHE, Plain—which includes Taper Chuck and its Steel Center, Tailstock Spindle and its Steel Center, Screw Chuck, 6 1/4 inch Cement Chucks, 9 feet of Round Belting. Price	\$ 35.00
LATHE, Plain—Less Tailstock; same as above. Price	28.00
LATHE, as first described above, and 10 Chucks, Chucks any size, Wire or Wheel. Price	42.50
LATHE, as first described above, and 15 Chucks. Chucks any size, Wire or Wheel. Price	46.25
LATHE, as first described above, and 16 Wire and 2 Wheel Chucks, 1 Chuck Box with Cover, and Jewel Chuck. Chucks any size. Price	49.80
LATHE, as first described above, and 23 Wire and 5 Wheel Chucks, 1 Chuck Box with Cover. Chucks any size. Price	56.85
LATHE, as first described above, and 33 Wire and 5 Wheel Chucks, 1 Chuck Box with Cover. Chucks any size. Price	64.35
LATHE, as first described above, and 80 Wire and 5 Wheel Chucks, 1 Arbor Chuck, 4 1/2 in. Saws, 1 each 1 1/2 inch Emery, Copper and Ivory Laps, 1 Chuck Box with Cover. Price	100.00

Price List of Attachments for Rivett Lathe No. 2.

Arbor Squaring Fixture or Filing Rest, patented	\$ 7.00	Chucks, Face Plate	\$ 2.75
Belting, per foot, Round .06, Flat . . . . .	.08	“ Mounting Beach	2.00
Centre Punch . . . . .	.15	“ Roller	1.25
Centers, Steel, Male, 3 sizes, each . . . . .	.25	“ Brass Cement, per doz. 1-4 in. . . . .	.45
“ “ Female, 3 “ “ . . . . .	.25	“ “ “ “ “ 1-2 in.	1.25
Countershaft, patented	7.00	“ “ “ “ “ 3-4 in.	2.15
“ “ Overhead Attach- ment	5.00	“ “ “ “ “ 1 in.	3.00
Countershaft Plain Single Stand	4.50	“ Blanks, for Mounting	1.00
Chucks, Wire, Best Steel, hardened and ground . . . . .	.75	“ Box, with Cover	1.00
Chucks, Screw	1.00	Dogs for Jeweling Rest Spindles	1.75
“ Taper	1.00	“ “ Face Plate, Chucks, small . . . . .	.65
“ for Pivot Drills, Taper Shank to fit Tailstock or Handle	1.25	“ “ “ “ “ large . . . . .	.85
“ Wheel . . . . .	.75	Draw-in-Spindles	2.00
“ Arbors for Saws, Laps, etc.	2.00	Index Plates, according to spaces . . . . .	.85 to 2.75
“ Jewel Center	3.50	Jeweling Rest, with Calipers	26.00
“ for Jeweling Soft Steel, same as used in Watch Factories, step- ped for Jeweling . . . . .	.45	“ “ “ “ “ and Cross Feed Screw	30.00
“ for Cement Pivoting—Watch Factory Style	2.75	“ “ extra Spindles, each	2.50
“ with Guide for Rounding-up Tool	4.00	“ “ Cutters, each . . . . .	.15
		Laps, Emery, 1 1-2 inches . . . . .	.45
		“ Boxwood, 1 1-2 “ . . . . .	.45
		“ Ivory, 1 1-2 “	1.15
		“ Copper, 1 1-2 “	1.15
		“ Tin, 1 1-2 “	1.25

Price List of Attachments for Rivett Lathe No. 2 continued.

Laps, Steel or Copper charged with diamond powder on both sides, 1 1-2 in.	\$ 2.50	Tailstock Half Open extra Spindles	\$ 3.00
Oil Cups each	.25	" with Traverse	10.50
" Covers each	.10	Tip-over T- Rest	3.00
Pivot Polisher	13.00	Traverse Spindle Grinders	25.00
" Laps	.35	" Grinder to go on Slide Rest	17.00
Rivett Foot wheel	9.00	Universal Head, Hardened Steel Spindle	
Rounding-up Tool, patented	20.00	Bushing hardened and ground, Patent	
Slide Rest, patented, 3 tools, cutting edge on each end	30.00	Jaws, Solid Nickel Plate	25.00
Slide Rest, Tools, with cutting edge on each end	.25	Universal Plate to fit Head, mounted on hard steel chuck, shank hardened and ground, Patent Jaws, Solid Nickel Plate	14.00
Slide Rest, "Rivett Special"	17.50	Universal Plate to fit Head, mounted on hard steel chuck, shank hardened and ground, Solid Nickel Plate, Plain Jaws	9.00
Saws, each 1-2 in.-.15. 3-4 in.-.20. 1 in.	.25	Wheel Cutting Attachment, Revolvable Tailstock with Slide, 12 Index Plates	35.00
Screw Plates for Brass Cement Chucks	1.25	Wheel Cutting Attachment, "Rivett Special" 12 Index Plates	23.00
Taps	.65	Wire, Stubs, for Slide Rest Tools, cut to length, 25 pieces in a bunch	.45
Tapers, Steel or Brass 3-16 in., per doz.	1.25		
" " " 1-4 " "	1.50		
" " " 3-8 " "	2.15		
Tailstock, Plain	7.00		
" with Screw	13.00		
" Half Open, with Spindle	11.50		