

The NEMES NEW ENGLAND MODEL ENGINEERING SOCIETY INC. Gazette

No. 137

September 2007

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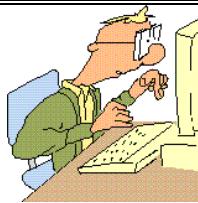
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Editor's Desk

Victor Kozakevich

I've been working on building a tool for an intricate car repair, and the other day was making a 1"x1" steel bushing on the South Bend. I had found a chunk of appropriate bar stock in the junk box and chucked it for drilling and boring. Oiled and fed in a 1/2" drill after spotting the center, and things were going well, two long curls coming out the flutes. "Nice", I said to myself.

I set up the boring bar after oiling the hole, engaged the power feed and a long, thin continuous chip poured out. "Wow" I thought, "I guess practice pays off". I then roughed the OD and switched to a round point carbide tool for the last .010" cut. After centering the bit and applying oil liberally, I flipped the switch and set the power feed. The bit left a near mirror finish. "Dang, I'm good!", I'm thinking.

Now to switch to the dreaded cutoff tool. Squared it up, poured on some oil, switch on, and advanced the cross feed. A chip peeled off like a curl of butter, no screech, no rumble. The gods were smiling. Finally it dawned on me, "I'm cutting Leadloy!"

Next Meeting

Thursday, Sept. 6, 2007

7:00 PM. Meetings held at:
Charles River Museum of Industry
154 Moody Street
Waltham, Massachusetts

Membership Info

Annual dues of \$25 (via checks made payable to "NEMES" and mailed to our membership secretary) for the calendar year are due by December 31st of the prior year.

Missing a Gazette? Send mail or email to our publisher.

Addresses are in the left column.

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President's Corner

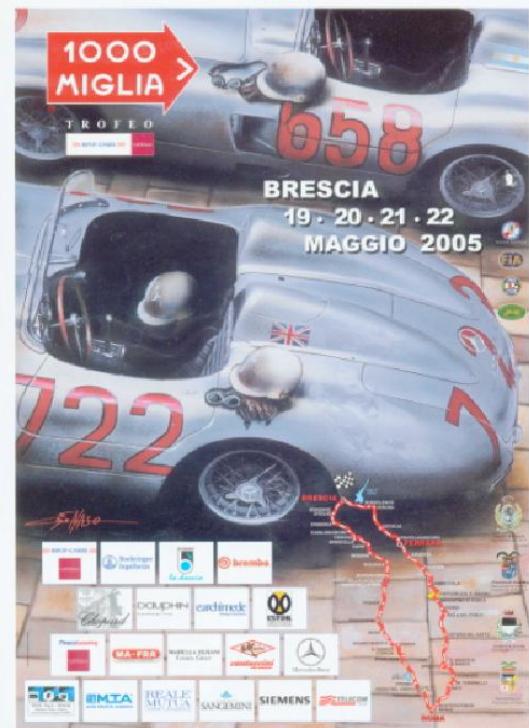
Dick Boucher

The Meeting

A Mille Miglia Adventure

Bruce Murray had the great luck to be invited to participate in the Mille Miglia in 2005. This modern event is one of the automobile world's great adventures and commemorates the Italian "all-out" road race that ran for 1000 miles in the years between 1927 and 1957. The races were run on regular roads and cars of all levels of performance participated. One of the most impressive races, and the stuff of legend, occurred in 1955 when Stirling Moss, driving a Mercedes Benz, completed the 1000 miles in a shade over 10 hours.

Mille Miglia 2005



The races were stopped after 1957 because there had been too many serious accidents over the years. Some time later the event was re-established as a nostalgic commemorative

event to which only pedigree cars were invited. The event became more of a time trial than a race and covers the majority of the original course. The cars have to meet very stringent requirements to be eligible, must have been made before 1957 and also must be machines with their original major components. Bruce was part of a 3-car team that ran early 1930s Alfa Romeos and a Maserati. It was an incredible journey. He will try and convey the atmosphere of the event itself, as well as the team preparations, by using the slides and movies he took during the event.

There can be no doubt that the scenes he witnessed and the enthusiasm of the crowds shows how much the Italians love their cars.

Miscellaneous Ramblings

By the time you read this, the 37th Annual Meet at the Waushakum Live Steam Club in Holliston will be over, Labor day will have come and gone, and I will hopefully have made even further progress on the rebuild of the "Virginia" locomotive whose chassis was on display on the ramp for the Model Engineering exhibition at the museum, and a lot of summer things will have come to an end. I hope some of you were able to attend the Waushakum Meet and enjoy the creativity of a lot of fellows building the different scale locomotives running around the tracks of different gauges.

As I mentioned at the August meeting I have the Model Engineer and Live Steam magazines that were donated to the Society that Bill Bracket had been storing. I still haven't set up a permanent storage place for them or cataloged them, however if a member wants to look through a stack of a year at a time, let me know. I have also acquired a complete 14 years (84 issues) of Strictly I.C. Robert Washburn is continuing to make available all past issues. There were 35 complete engine construction articles in the publication and again if a member would like to browse through my set to determine if there might be a construction article that catches his fancy, he could then order those issues from Robert. His web site is at www.strictlyic.com

The White Mountain Central Railroad at Clark's Trading Post will be holding their annual Steam Weekend September 15th –16th. There will be at least three steam locomotives and one diesel

locomotive in operation during the weekend. If you have no interest in that activity you might venture over to the Sudbury Day Festival in Sudbury town center, between noon and 5PM. If you go, say hello to our October speaker, Max Hall, and check out the Tri-Hi hybrid vehicle he constructed.

Dick B.



The Meeting

Todd Cahill

President Boucher called the August meeting to order at 7:00 with a welcome to any newcomers to our club. While on a trip out to the air show in Oshkosh, WI, Errol Groff and Norm Jones began to compile a list of sites in the New England area that people like us may find of interest. The list was circulated amongst the group and any additions were encouraged. The list will be posted on the website and included in a future issue of the gazette.

Member Wayne Singer has built a 1.5" scale Climax Locomotive to Kozo's design. After 11 years in the making, he had his first run at The Adirondack Live Steamers and has some pictures to prove it.

Vice President Frank Dorian brought in a miniature table vice designed to integrate with a milling table. Because the fixed and moveable jaws are separate, the capacity is nearly as big as the milling table used. A word of warning when using such a vice: Do not over torque the vice because there is a danger of bowing the table.

Bruce Murray also made the trip out to Oshkosh for the annual air show. Especially of interest were the various workshops at the show that

explained everything from TIG welding to woodcraft and fabric covering.

The builder of the Hexapod machine (who's name I can't recall) has started to cut aluminum on the machine. He was curious as to the cause of a bronzing of the aluminum that occurred while being machined.

For a number of years, Henry Szostek has been displaying a model of a rowing boat. The model has been realized full-size and was recently raced in Gloucester. The race was twenty miles and Henry came in third in his class at 3 hours 39 minutes.

New member Bob Shapiro is looking for some model making and engine design help for a new type of engine that he is developing. Another new member transplanted from California claims to no longer be a member of the Yuppie class. He is now of the 3D (Downward Doddering Duffer) class. His interests range from model engine building to making iron from bog ore.

The main speaker for the evening was Dave Perreault. Although known in our circle for the fine engines he's displayed at our annual show and elsewhere, Dave has also built a number of guitars. Dave discussed the various techniques and requirements for building guitars.



Dave first began making guitars with his son when he felt his son needed to apply himself to a project. Dave designed the guitars using a CAD program, overlays and storyboards to transfer them to wood. All of his guitars are of the through-neck design; in

other words, the neck goes through the body of the guitar, rather than being bolted on.

Dave uses a band saw, a router, and a thickness planer in conjunction with many jigs and fixtures used to hold the wood as they are passed through each machine. The neck of the guitar needs to be made to exacting standards with the fret spacing critical to being able to get the different notes. Dave's fret board was laid out on an Excel spreadsheet and cut with a very fine hand saw in special miter box that controls both the depth and the spacing. The fret board needs to have a 15" crown radius sanded on the top. The radius is achieved by using a sanding block that is controlled by a jig.

The neck of the guitar has a metal truss rod that strengthens and keeps the neck from bending from the tension of the strings. The space for this rod is routed into the neck and then covered by the fret board. The frets are cut from fret wire and rolled to the 15" radius with a small, specially made rolling mill and then installed using a press with a curved block attached to the arbor.

The body is band sawn, routed and sanded with the pockets for the pickups and components routed with the aid of templates.



Dave's guitars are made out of mahogany and maple. The softer mahogany gives the guitar its low tones while the denser maple is for higher, more sustained tones. The finish is kept to a minimum. Lacquer can become sticky under sweaty fingers. Dave uses tung oil on his guitars.



Dave also incorporates inlays in some guitars. He starts out by assembling the inlay as a stand-alone shape assembled on a piece of wax paper. He then uses yellow poster-paint on the receiving wood and glues the pattern on top of it. A very sharp scribe is used to trace around the pattern and the pattern is popped off leaving a distinct border to cut with a Dremel tool or chisel. Glue mixed with wood dust fills any imperfections.

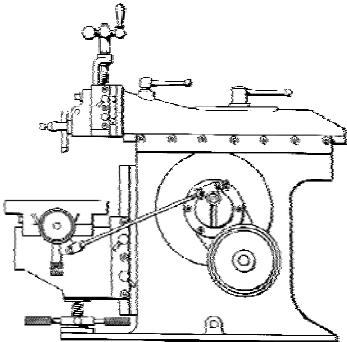
Todd



Treasurer's Report

Richard Koolish

Balance as of July 19, 2007	8523.73
July Gazette	-123.35
Schoppe Fund contribution	-100.00
August Gazette	-191.99
July speaker fee	-50.00
Balance as of August 21, 2007	8058.39



Metal Shapers

By Kay R. Fisher

Shaper of the Month

Irby Jones - 15" Juengst & Sons

This month's story is one of acquisition by Irby Jones from Poquoson Virginia of his 15-inch Juengst & Sons.



Juengst & Sons Front

Photo by Irby Jones



Side Showing Crank

Photo by Irby Jones

"Here is an antique shaper I won at auction, when the Tennessee Valley Authority sold some old line-shaft machines. It was part of a collection of antique machines offered to museums and non-profit organizations in late 2006. I recognized it as a Juengst & Sons shaper, probably built between 1884 and 1889. Cope's book on planers and shapers lists Juengst & Sons shapers on page 95, and says the company was "formed about 1884 to build shapers with horizontal cranks."



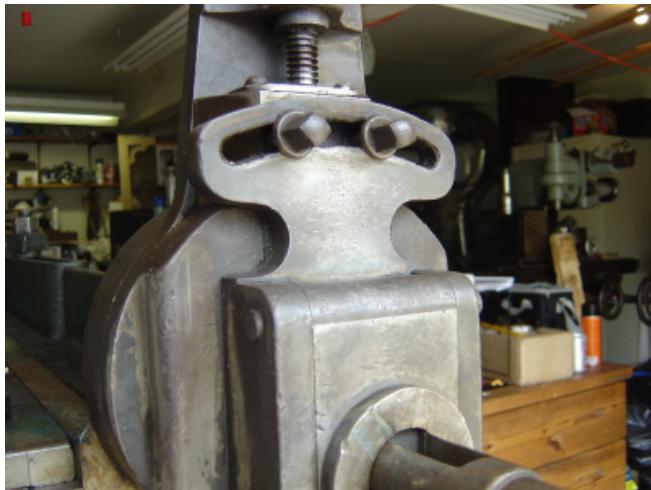
Side

Photo by Irby Jones

In 1889, they made shapers under contract to Prentiss Tool & Supply and by 1907 put their own name on the machines. Art Volz and I studied the patent for this shaper years ago because it was among the first attempts by manufacturers to vary the ram speed during a cut and return cycle.

Modern shapers generally use a pivoting yoke and slider to provide the ram speed variation.

About the same time, other manufacturers like Hewes & Philips introduced non-circular gears to get the same speed variation.



Where is the Name?

Photo by Irby Jones

It's what I thought it was!

I've been scraping away crud all over the place on that old ex-TVA shaper, trying to find a name.



Found the Name

Photo by Irby Jones

FINALLY, I found the name stamped on the front of the clapper, right where the tools can hit it! It does say exactly what Cope has in his book:

The lettering is hard to make out and harder to photograph, but it's there. You can barely make it out in the above photo, so I tried to highlight the markings. It says:

GEO. JUENGST & SONS
CROTON FALLS
N.Y.
PATENTED
SEPT. 23, 1884

Now I'm really tickled! And this is the 18th shaper built by them.

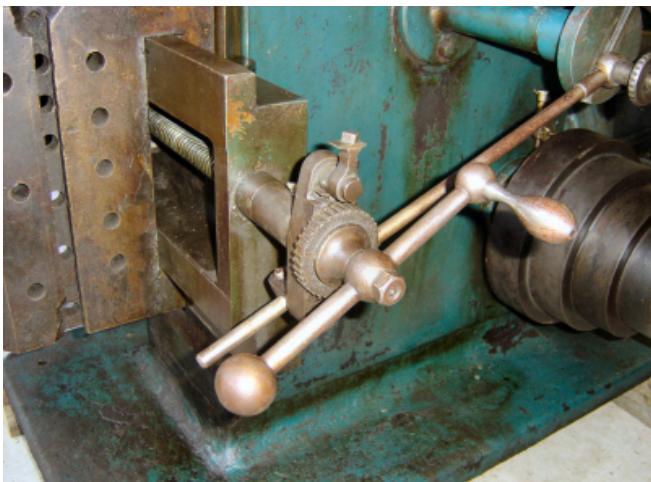
Modern shapers generally use a pivoting yoke and slider to provide the ram speed variation. Art and I were interested in making a 3" stroke scale model from either the Juengst & Sons shaper or the Hewes & Phillips shaper. We couldn't find any mention of Juengst & Sons shapers anywhere we searched, but did find 3 Hewes & Phillips shapers in this country.



Table & Vice

Photo by Irby Jones

I've "pursued" this shaper every since I first saw it in the photos of the TVA machines back in November, 2006. There's no telling how many times I've talked to the TVA folks about it and hoped some antique machinery exhibit organization would ask for it, since it would be free to them. The bottom line is no one requested it, so it went to auction and I won.



Pawl

Photo by Irby Jones

This old shaper that's in my care now may well be very rare – only 2 others are known by me. My friend Art passed away unexpectedly last October, before this machine surfaced, but I can look at it from now on and remember the fun he and I had exploring the early shaper drive mechanisms (Art was a shaper guru). Heck, it has a 15" stroke so it's going to be very useful around my shop and will fit right in with my growing collection of 1880s & 1890s machines!



Rear Ram

Photo by Irby Jones

Patent Information

This shaper has a drive mechanism patented Sept. 23, 1884 by G. Juengst, that utilizes two offset plates connected by a link to achieve a faster return stroke speed.



One Shaper to go

Photo by Irby Jones

The patent claims that this mechanism results in a rapid return motion "without the destructive and unsteady power caused from momentum of the moving parts".



Precious Load

Photo by Irby Jones

He's probably comparing it to the conventional whitworth-type quick return that uses a long slotted arm anchored at the bottom and linked to the ram at the top. Art Volz and I found the Juengst patent a couple of years ago when we were looking at unusual shaper drive mechanisms. We couldn't find any mention of a Juengst shaper except in Cope's book on shapers and planers



Easy Off

Photo by Irby Jones

By 1907 Juengst & Sons was offering 16" and larger shapers under its own name. I figure my shaper is an early model, probably built after 1884, based on its earlier-looking table design and the apparent serial number of 18.



Serial Number 18

Photo by Irby Jones

I figure my shaper is an early model, probably built after 1884, based on its earlier-looking table design and the apparent serial number of 18.

The ram stroke is adjustable up to 15" and I figure it weighs about 1600 pounds with the vise. It appears to have all the original parts.

Getting this machine has been a great adventure. It started out back in November when I recognized it and ended with me carrying it back through the Tennessee and Virginia mountains in my under-powered ½ ton Ford Ranger.



Ram in Back Seat

Photo by Irby Jones

It's here to stay :)



Ram out Back Seat

Photo by Irby Jones

It looks like the worm drive is original (in design at least) since the housing inside is designed to hold the gearing that's there. It's a double start worm gear, but I didn't measure the pitch. The worm wheel has 27 teeth if I counted correctly.

The patent shows a bevel gear from the cone pulley driving a small spur gear, driving a large spur gear attached to the bottom plate. My shaper has just the worm driving the bottom plate, so it's a change since the patent design.

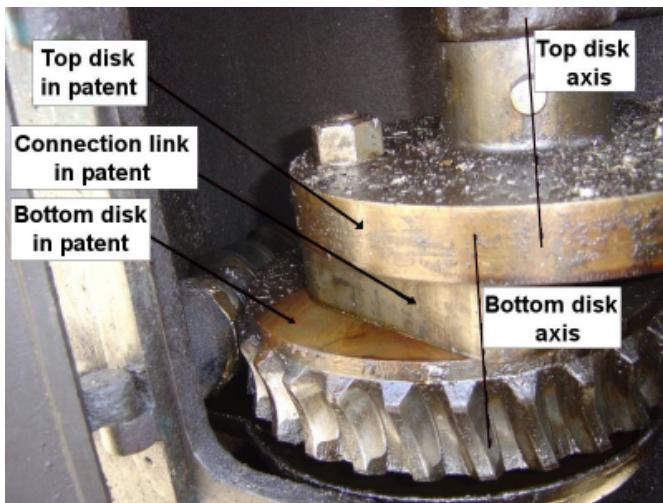


Drive Plate

Photo by Irby Jones

I noticed that the patent was applied for in Oct. 1883 and granted in Sept. 1884, so the patent drawing was done probably a year and a half before it was granted.

There's a little wear showing on the worm gears. They also look polished or even ground, which surprises me on a mid-1880s machine. I need to look it over really well, but it looks like the pulley has been rotating in the opposite direction described in the patent.



Drive Plate 2

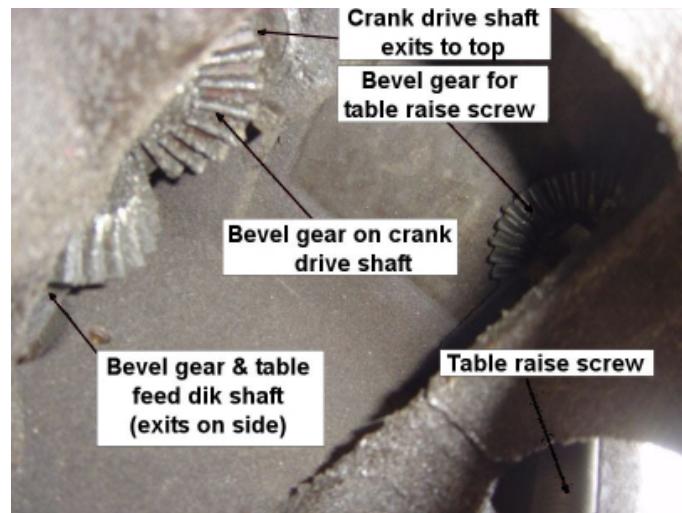
Photo by Irby Jones

If so, that may mean the gearing isn't actually worn for the faces used in turning the correct direction. That would be nice! The bevels I can see inside look like I'd expect for 1880s.

I intend to restore this and scrape it in eventually so it cuts as true as any modern shaper - then use it all the time.

Juengst & Sons Shaper & Art Volz

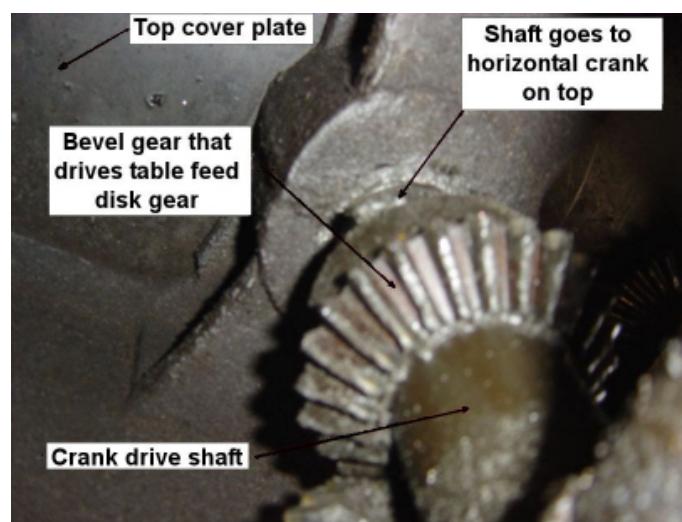
It turns out our old friend Art had taken a liking to Juengst & Sons shapers a long time before I met him and he told me about them.



View from Bottom

Photo by Irby Jones

A search of the Yahoo Group Metal_Shapers message archives for "Juengst" found 2 messages Art posted about those shapers in 2002 (message 2072) and 2003 (message 6743). I only "met" Art and started corresponding with him in late 2004, just after I had bought an old Schneider & Goosmann planer. I found Art while searching for shaper & planer information - his name kept popping up everywhere!



View from Bottom 2

Photo by Irby Jones

One of the topics Art and I discussed often was unusual shaper drive mechanisms, and he liked the offset plates of the Juengst shapers. Art and I were interested in making a 3" stroke scale model from either the Juengst & Sons shaper or the Hewes

& Phillips shaper. We couldn't find any mention of Juengst & Sons shapers.

In fact, after a year of us talking about building such a model, Art formed the Hewes_Phillips group to do just that.

The memory of Art's fascination with Juengst & Sons shapers was a driving force in my pursuing the one I have now. I had found 3 existing Hewes & Phillips shapers, had talked to their owners, and had photos of them, but the Juengst & Sons shapers had eluded our search. Then this one popped up at the TVA and the rest is history. Now it sits in my shop.

Just when I thought the old Juengst shaper I got was possibly the last of its breed, I discover two more around. One is owned by Jim Mackessy in Syracuse, NY. It has a patent date of Sept. 3, 1890 stamped into the front of the clapper and is serial number 1028. Another, of the same patent date and serial number 906, is

owned by a fellow on the Metal_Shapers group, Richard Krebs, in Othello, Washington.

It's a real shame Art isn't with us to see this shaper in real life.

The shafts are all loose in the housing, allowing the gears to wobble some, so I need to re-bush them eventually. The end of the cone pulley shaft has a babbitt bushing where it is supported in the side of the housing. I can't tell what the rest have."

On the next 3 pages are copies of the Juerngst patent that Irby mentioned.

Thanks Irby for that great acquisition story.

Keep sending me email with questions and interesting shaper stories.

My email address is:

KayPatFisher@gmail.com

Kay

UNITED STATES PATENT OFFICE.

GEORGE JUENGST, OF NEW YORK, N. Y.

SHAPING AND PLANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 305,520, dated September 23, 1884.

Application filed October 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE JUENGST, a citizen of the United States, and a resident of the city of New York, in the county and State 5 of New York, have invented certain new and useful Improvements in Shaping and Planing Machines, of which the following is a specification.

My invention relates to improvements in 10 shaping and planing machines in which the tool has a horizontal reciprocating motion caused by a crank, and the work is secured upon an adjustable cross-slide forwarded to the tool by a screw-feed actuated by a pawl-and- 15 ratchet mechanism.

The object of my improvements is, first, to 20 secure for the tool a steady and proper slow cutting motion by means of a durable mechanism, and to secure a maximum quick return motion of the tool from the work, so that thereby a minimum time is required to perform accurate and smooth work; and the object is, 25 secondly, to avoid the disconnection of the feed-screw with its screw-nut and avoid the frequent breakage or derangement of the feed- 30 device by a novel friction-joint between the ratchet-wheel and the feed-screw. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a sectional side elevation 35 of the shaping-machine with my improvements. Fig. 2 is a top view of the tool-slide and the operating mechanism of the same. Fig. 3 is a diagram for exhibiting the motion of the tool and its slide. Fig. 4 is a detached vertical section of the pawl and ratchet of the feeding device. Fig. 5 is a front view of the same.

A represents the frame of the machine, and B the work-carriage or cross-slide carrying the 40 chuck B', upon which the work is secured.

D is the vertical slide, upon which the cross-slide is held adjusted and fed across.

E represents the screw for raising the slide D and the work relatively to the tool, and F 45 represents the reciprocating tool-slide, which carries the tool-stock and tool G on its forward end.

H is the slotted crank; I, the connecting-rod; J, the crank-pin, and K the tool-slide stud for 50 operating the reciprocating tool-slide F.

L represents the vertical crank-shaft, to which the crank H is attached at its top end. It revolves in the bearings M M, formed in the frame A, and its bottom end has secured upon it a crank-plate, N, with a crank-pin, O, and between its bearings M M the shaft L is provided, with the bevel-pinion P, secured upon it, for operating the horizontal feed-shaft Q, which has the bevel-gear R, to engage with said pinion P.

The machine is furnished with the usual horizontal driving-shaft, S, arranged in the bearing T on the side of the frame. The shaft S has on its outer end the usual cone belt-pulleys, to which the power is applied. The inner end of said shaft has upon it the bevel-pinion U, for transferring the power to the vertical counter-shaft V, which is furnished with a bevel-gear, W, to engage with said pinion U. Said shaft V transmits the power to a secondary vertical shaft, X, by means of the pinion Y, secured upon the top end of the shaft V, said pinion engaging with a horizontal spur-gear, Z, upon the top end of the shaft X. Said spur-gear Z revolves under the shaft L and its 75 crank-plate N, and upon its top face is secured the crank-pin a, connected by a link, b, with the crank-pin O, by which means the motion is transmitted from the shaft X to the shaft L, before mentioned. The shaft L is arranged 80 with its axis in the central vertical plane of motion of the tool-slide F. The axis of the shaft X is arranged eccentrically to that of the shaft L and in a vertical plane at a lateral distance from that of the shaft L, as shown in 85 Figs. 2 and 3, so that the dead-center line of the crank-pin a lies nearly lateral to that of the crank-pin J and lateral from the shaft L, and to that side of it which is described by the crank H in forwarding the tool to the work, 90 as shown in Figs. 2 and 3, in which the distance from e to f represents one-twelfth part of the motion of the crank-pin a, and in which g h represent the distances—corresponding—proceeded by the crank-pin J, the tool, and tool-slide during the cutting time or forward motion, and in which the distances from i to j represent the proceeding of the crank-pin J, tool, and tool-slide during each one-twelfth of the crank-pin a during the return motion or motion 95

while the tool is receding from the work, all clearly shown in Figs. 2 and 3. By this means the proper slow motion for cutting commences soon after the tool and its stock have set up 5 solid ready for cutting. Said tool hereafter proceeds slowly until the return motion is reached. Soon after the return motion has commenced the same proceeds at a very rapid speed until having reached its termination, up- 10 on which the former-described motion takes place. Both shafts X and V have their bearings m m m m formed in the frame A of the machine.

By having the mechanism for producing the 15 quick return motion constructed of compound cranks and links, which operate alternately, respectively, their dead-centers, a very rapid return motion is obtained without the destructive and unsteady power caused from momen- 20 tum of the moving parts.

The vertical slide D, which carries the cross-slide B, is furnished with the horizontal feed-screw n, to feed the cross-slide and the work upon it to the tool. Said screw n has its bearings in the ends of the slide D, and has proper collars secured to it, to bear against the slide 25 D and prevent any longitudinal motion of the screw. The cross-slide B has attached the screw-nut o, in which the screw n engages to 30 feed said slide. Upon the outer shank or end of the screw n, on the side toward the feed-crank, is arranged the ratchet-wheel p and the vibrating pawl-lever s, with the pawl t on its upper arm and with the feed-rod stud on the 35 lower arm. On the extremity of the screw, forward of the ratchet-wheel p, is fitted a proper threaded screw-nut, l, with a washer between it and the hub of said wheel p. The pawl-lever s is fitted, as usual, to turn loose 40 upon the shank of the screw n; but the ratchet-wheel is fitted, not, as is usual, with a key to lock it upon said shank, but with a taper

ground-bearing, so that it is held sufficiently tight upon said shank for operating and feeding the cross-slide; but in case said cross-slide 45 has been allowed to feed against the end of the slide D or other solid obstruction against the cross-slide the friction of the bearing of the ratchet-wheel upon the screw n is insufficient to move them together, and the ratchet-wheel 50 may turn and slip upon the screw. By this means the frequent breakage of the feeding mechanism is obviated. By means of the screw-nut l the friction of the bearing between the ratchet-wheel and screw is readily renewed 55 or released and regulated to suit the requirement at any time.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In shaping and planing machines, the combination, with the reciprocating tool-slide F, the shaft L, provided with disk N, the crank H, the connecting-rod I, and stud J, of the crank-pins O and a, the link b, the shaft X, provided with gear Z, arranged eccentrically and 60 adapted to operate with the shaft L to secure the to-and-fro motion of the cutting-tool, as herein set forth.

2. The arrangement and combination of the tool-slide F, the shaft L, provided with disk 65 N, the crank H, connecting-rod I, the stud J, the feed-screw n, the bevel-gear R, the shaft Q, and pinion P, the ratchet-wheel p, the pawl t, lever s, and nut l, with the crank-pins O and a, the link b, the shaft X, provided with gear Z, 70 relative with the shaft L, substantially as and for the purpose herein described and shown.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two witnesses.

GEORGE JUENGST.

Witnesses:

FRIEDRICH HÜFNER,
CHARLES SCHULTZE.

(No Model.)

G. JUENGST.

SHAPING AND PLANING MACHINE.

No. 305,520.

Patented Sept. 23, 1884.

Fig. 1.

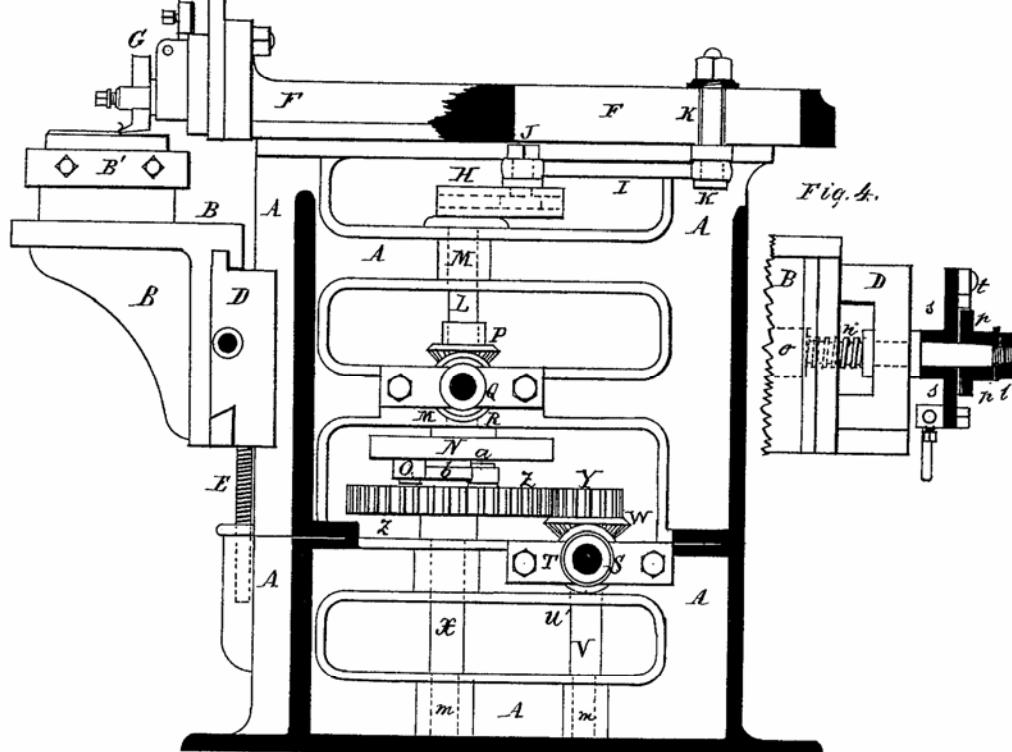


Fig. 4.

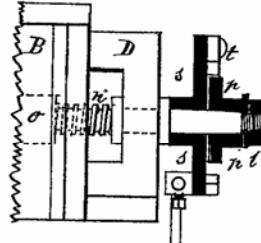


Fig. 2.

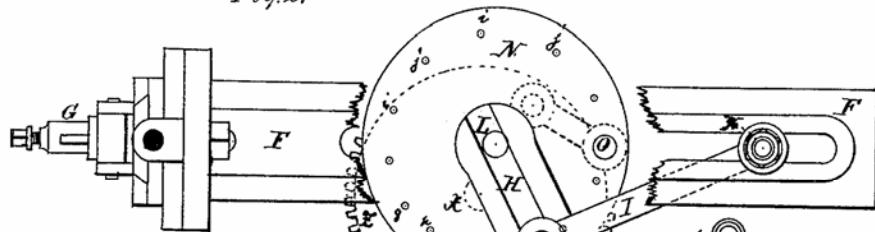


Fig. 5.

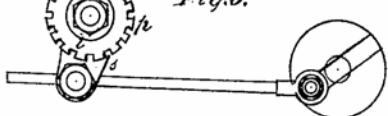
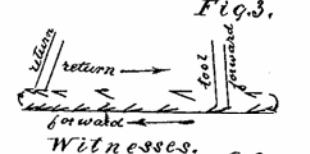
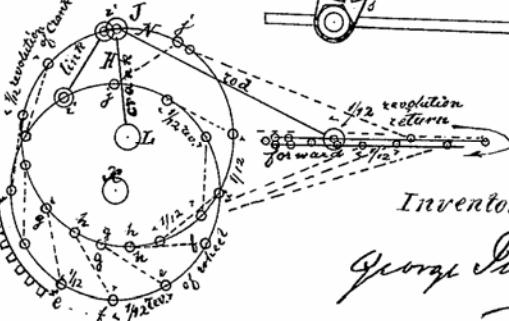


Fig. 3.



Witnesses.
Friedrich Hafner
Charles Schuttler



Inventor.

George Juengst



For Sale

Shaper Work CD

Put out in 1944 by the New York State education Department this 326 page manual is chock full of valuable tips and information on using the King of Machine tools....The Shaper. Covered is everything you need to know about the care and feeding of the shaper, use of the shaper, even how to sharpen tools for the shaper. Scanned and saved in Adobe Acrobat format. The CD now has a lot more info on it, and the price has increased accordingly. \$10.00, shipping included.

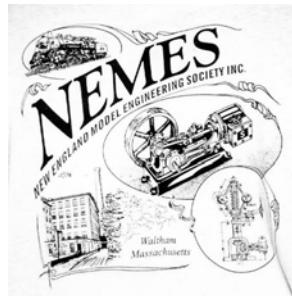
Errol Groff
180 Middle Road
Preston, CT 06365 8206
errol.groff@snet.net

NEMES Shop Apron



Look your best in the shop! The NEMES shop apron keeps clothes clean while holding essential measuring tools in the front pockets. The custom strap design keeps weight off your neck and easily ties at the side. The apron is washable blue denim with an embroidered NEMES logo on top pocket.

Contact Rollie Gaucher 508-885-2277

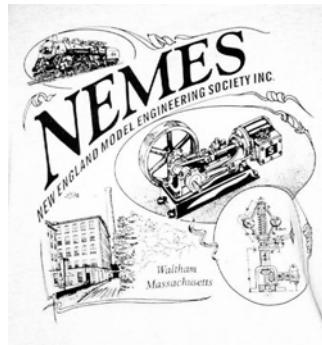


NEMES clothing

NEMES Tee Shirts

NEMES tee shirts and sweat shirts are available in sizes from S to XXXL. The tee shirts are gray, short sleeve shirt, Hanes 50-50. You won't shrink this shirt! The sweat shirts are the same color, but long sleeve and a crew neck. Also 50-50, but these are by Lee. The sweat shirts are very comfortable!

Artwork by Richard Sabol, printed on front and back:



Rear

Front

Prices:

	Tee Shirts	Sweat Shirts
S - L	\$12.00	\$22.00
XXL	\$14.00	\$24.00
XXXL	\$15.00	\$25.00

Add \$5 shipping and handling for the first tee shirt, \$1 for each additional shirt shipped to the same address. Sweat shirts are \$7 for shipping the first, and \$1.50 for each additional sweat shirt.

Profits go to the club treasury.

Mike Boucher
10 May's Field Rd
Lunenburg, MA 01462-1263
mbouch@hotmail.com



**MARK
THIS
DATE**

Upcoming Events

Bill Brackett

To add an event, please send a brief description, time, place and a contact person to call for further information to Bill Brackett at thebracketts@verizon.net or (508) 393-6290.

Bill

Sept 1st Cabin Fever Expositions
Leesport Pennsylvania
<http://www.cabinfeverexpo.com>

Sept 6th Thursday 7PM
NEMES Monthly club meeting
Charles River Museum of Industry
781-893-5410 Waltham, MA

Sept 8-9 Dublin Show
RT 101, Dublin, NH 603-863-4696

Sept 9th Pickup Truck Meet & Antique Aeroplane Show
Owls Head Transportation Museum Owls ME
<http://www.ohtm.org>

Sept 14-16th Pioneer Valley Live Steamers Fall Meet Southwick Ma
www.pioneervalleylivesteamers.org

Sept 15-17 Lee's Mills Steamboat meet
Lake Winnipesaukee Moultonboro NH
603-476-5617

September 15th Saugus Iron Works will have an iron pour 11:00 - 3:00
<http://www.nps.gov/sair/planyourvisit/things2do.htm>

Sept 16th 9:00am The Flea at MIT
Albany Street Garage at the corner of Albany and Main Streets in Cambridge
<http://web.mit.edu/w1mx/www/swapfest.html>

Starting September 22 and every weekend through October. 1:00-5:00PM
"Yankee Siege" trebuchet Greenfield, NH
<http://www.yankeesiege.com/>

Sept 23rd Earth Movers & Shakers & Antique Aeroplane Show
Owls Head Transportation Museum Owls ME

Sept 29-30th Connecticut Antique Machinery Museum Fall Festival
Kent Ct. John Pawlowski President P.O. Box 1467, New Milford, CT 06776

Sept 29th 9:00-4:00
The Original Yankee Steam-Up
The New England Wireless and Steam Museum Inc
1300 Frenchtown Road East Greenwich, RI
<http://users.ids.net/~newsm/>

Sept 30th 12:00-5:00
Roland's Shop visit
90 S. Spencer Rd. Spencer Ma.
508-887-2277

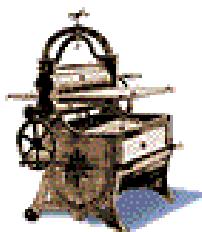
Oct 4th Thursday 7PM
NEMES Monthly club meeting
Charles River Museum of Industry 781-893-5410 Waltham, MA

Oct 7th Foreign Auto Festival & Antique Aeroplane Show
Owls Head Transportation Museum Owls ME

Oct 14th 9:00am The Flea at MIT
Albany Street Garage at the corner of Albany and Main Streets in Cambridge

October 27 9-5 American Precision Museum 8th annual Model Engineering Show., Windsor Community Center, Windsor VT
www.americanprecision.org 802-674-5781.

Oct 28th The Great Fall Auction
Owls Head Transportation Museum Owls ME



NEMES Gazette Editorial Schedule

Issue	closing date for contributions
October '07	September 21, 2007
November '07	October 19, 2007
December '07	November 23, 2007