The MSB Journal

Vol. II Issue VIII

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On the Cover Stadiometer National Maritime Museum

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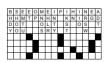
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Editors Notes



Ever have a feeling you were being watched?

I snapped this picture this past summer in my back yard while sitting on my deck. This was one very busy squirrel. It even drove the neighbourhood cats a little crazy while avoiding their efforts to make him their lunch! :-)

Unfortunately, due to time constraints beyond my control and some work that I have scheduled to work on at the website, next month I will not be able to put out an issue of The MSB Journal. Fear not though, as it will be back the first of December.

And on that note, our electoral leadership debates are on TV tonight here in Canada so I'm going to get this issue out without further delay.

Happy Modeling.

Winston Scoville www.modelshipbuilder.com

The RNLB Helen Wycherly

An ongoing project by Mike Pendlebury

Mike sent in some more progress pictures of his lifeboat project.





The sliding rudder has been built and trial fitted in place to check that the function is correct, and the wooden fendering around the top of the hull laminated in place.





Next the whole hull has had four coats of primer, sanded down between coats, until the finish was acceptable. This was then followed by masking off the delineation between the lower white hull section and the blue upper hull and again four coats of colour painted on to give a good finish.





After these coats hardened off the fender was painted in its typical red. As this is to be a working model the power plants and associated control gear were added and checked out in the test tank (the bathtub!!).



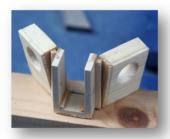


After a successful test attention was directed to fitting the raised bulwarks at the bow and stern. The supports were built up from steamed timber laminated over accurate tracings of the deck edge and then pinned in place on the deck.





The sides were then steamed, bent and glued in place up to the correct level.







The final section of the bulwarks was the bow block, which on the original boat was a solid bronze casting, it was built up from several sections of timber, filled with epoxy putty, sanded to shape and painted in a bronze colour then fitted in place ready to add the roller at a later date.





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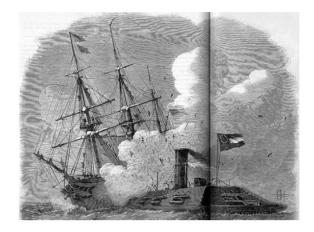


And that's it for Mike's update this month. She's really starting to shape up Mike!

From the Files of ShipWreck Central



USS Cumberland, a 1,726-ton sailing frigate, was built between 1825 and 1843 at the Boston Navy Yard. She was commissioned in November 1843 and served for the next few years in the Mediterranean. She was in the Home Squadron in 1846-48, sometimes as its flagship, and participated in Mexican War operations during this time. Cumberland made two more deployments to the Mediterranean in 1849-51 and in 1852-55.



In 1855-56, Cumberland was converted to a sloop of war, allowing her to carry a battery of heavier, though fewer, guns. She

was flagship of the Africa Squadron in 1857-59 and was again flagship of the Home Squadron in 1860.

As the secession crisis turned warlike in the spring of 1861, Cumberland was at the Norfolk Navy Yard, Virginia, and was towed to safety when that facility was burned and abandoned on 20 April. Thereafter, she served on Civil War blockading duty off the Confederacy's Atlantic coast, taking part in, among other things, the capture of Forts Hatteras and Clark in late August 1861. Last Voyage

Cumberland was anchored off Newport News, Virginia, on 8 March 1862, when the iron-clad CSS Virginia (aka Merrimack) came out to attack Federal warships in Hampton Roads. In a battle that decisively demonstrated the power of the armoured steam-powered warships against the earlier wooden sailing types, Cumberland was rammed and sunk by the Virginia. Her own guns were unable to significantly hinder the Confederate ironclad, and she was incapable of sailing away from the encounter. (U.S. Naval Historical Center)

The sinking of the Cumberland on March 8, 1862 was one of the more dramatic moments of the Civil War. Her captain was absent that day, presiding at a court martial on board the U.S.S. Roanoke, and the command devolved upon the executive officer, Lt. George U. Morris. That the battle with the Merrimac would really be no contest became apparent when the Confederate ship's guns raked the deck of the U.S.S. Congress, inflicting severe-casualties, and the return fire failed to penetrate, or even seriously damage, the ironclad's armour.

The Merrimac's captain asked Morris to surrender, to which he replied "Never! I'll sink alongside!" and gave orders to commence firing. The ironclad steamed directly towards the Cumberland and rammed her in the forward starboard quarter. The Merrimac backed off, breaking her recently extended prow in the process. The pinon ship lurched and her main deck began to sink beneath the waters of the James River, but not before she had fired a series of broadsides, killing or wounding nineteen men and causing more damage to the ironclad than she sustained at any other time in her combat career. Within a short time the Cumberland had settled on the river bottom with only her flag and mainmast top still visible above the waves.- Over 120 members of her brave crew accompanied the proud warship on this final descent.

GHOST SHIPS

by Gene Bodnar



In the past hundred years all the way up to present times, there have been numerous accounts of ghost ship sightings, and most of the sightings have been reported repeatedly by many different witnesses. Three of the most famous "ghost ships" are the "Flying Dutchman," the "Mary Celeste," and the "Queen Mary."

The legend of the "Flying Dutchman," is probably the best known, and many superstitious folks believe that sighting the vessel is an omen of disaster. While under sail around the Cape of Good Hope in 1660, she encountered a bad storm. The captain, refusing to sail for safe harbor, lost all of its crew. Today, many believe that the ship and its crew are doomed to sail forever on the open sea. Numerous reports of its sighting have been made, and most often they include stormy weather. Legend has carried the story a step further, especially in a play by Richard Wagner, by saying that the Captain goes ashore every seventh year in order to re-

deem himself by winning the hand of a maiden.

Slightly past midnight on January 26, 1923 four seamen sighted the "Flying Dutchman," which they viewed with binoculars. The vessel appeared to have two luminous masts, but instead of sails, they saw a thin mist where the sails should have been. As it approached nearer, it suddenly disappeared.

The second famous "ghost ship" is the "Mary Celeste." On December 5, 1872, the ship "Dei Gratia" spotted the "May Celeste" floundering at sea. Approaching the ship, the captain, who has an excellent reputation, was surprised to see the ship derelict and boarded the apparently abandoned vessel, where it appeared as though the crew had left in a great hurry. No evidence of foul play was every discovered, and theories ranging from foul play to seaquakes to being eaten by sharks. Ever since this time, numerous people have claimed to still see the "Mary Celeste" sailing on the sea.



The third famous "ghost ship" is the "Queen Mary," an ocean liner that accidentally nudged the "HMS Curacoa" on October 2, 1942. The "Queen Mary" did not stop because her or-

ders were to continue on course, no matter what. As a result, the "Queen Mary" collided with the "HMS Curacoa" and snapped her in half. Of 439 men on board "HMS Curacoa, 339 were lost.

In 1967, the "Queen Mary" would be converted into a floating hotel in Long Beach, California. En route to California, strange things started to happen. Crew members heard clanging noises, as if the ship was under repair, but not a soul was there. One crew member sighted a woman at the swimming pool dressed in a bathing suit from the early 1950s, and said she was about to jump into the completely empty pool. When the crew member shouted at her to stop, she vanished. Later, ship's records revealed that a woman had drowned in that swimming pool many years earlier.



Numerous other incidents have been reported on the "Queen Mary." Hatches open by themselves; sounds are heard in various areas of the ship; wet footprints have appeared along the empty swimming pool; and the ship's first captain, who died on one of her voyages, has been sighted pacing on the bridge.

Are you skeptical? Are you superstitious? Is there any truth to any of these sightings. Many sightings have been reported by highly respectable and upstanding citizens. It is difficult to dismiss all of them.

The "Queen Mary" is still a floating hotel today, and she offers ghost tours on a daily basis. If you go on a Saturday night, you can dine with their resident psychic, too. You might want to check it out.

What is this?

Can you name this object and what it was used for?





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What is this? From the last Issue

The Stadiometer is a rangefinder that looks very similar to a telescope but which has no lenses. This particular Stadiometer circa 1860 has a leather-covered barrel with an inset panel that holds a conversion table of tube length against height. The silvered brass fittings include two draw tubes with a scale of length inscribed along them. Looking through the eyepiece, there are two pairs of parallel wires at right angles to each other - the narrower

wires are used for larger distances.



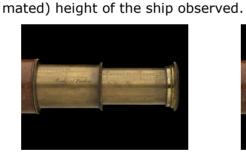
To use the instrument, the mariner lines up the top and bottom of the ship observed with the two parallel wires and then reads off the length from the scale inscribed on the draw tubes. They would then use the table in the in-



Stadiometer

set panel to work out the distance based on the known (or esti-







Rangefinders were designed principally to determine how far away other ships were, either for travelling in convoy or when fighting an enemy ship. This type was invented by G.H. Blakey, who was a master in the Royal Navy from 1849 (retiring with the rank of commander in 1870), and was made solely by W. Heath of Devonport, whose name is printed on the table.

Contributors Pictures

Here are some more pictures sent by from Brian Lemon of Australia of some of his models. This first set of is a 1/16" scale model of the Scottish Fishing Smack "Loch Fyne"









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Next are some pictures of the West Australian Cargo Cutter "GEM" which sank of Rottnest in 1876.





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Cutting Logs and Planks

By: Gene Larson

This article is an addendum to the "Lumber Mill" article published in the June issue (Vol. II Issue IV). There have been a lot of questions and discussions about how to harvest your own wood, or what to do with that log or plank you were given or you bought.



It should be realized that

there are many excellent woods available in addition to the highly coveted English boxwood. As our Washington club member Howard Chapelle said, and echoed by Merritt Edson when he was Secretary of the Nautical Research Guild, woods such as maple, cherry, and holly make beautiful models, and in are of equal status with box wood. They both suggested that model builders use these woods local to us in the U.S. rather than pay exorbitant prices for foreign materials that are really no better.

In order to pursue this endeavour you must realize that you need the proper equipment and know how to use it safely. There is a considerable investment involved if your only purpose is to produce model building woods as you will realize as you read further.

I have harvested many interesting logs from various locations. I found apple in an old orchard to be replaced in West Virginia and a cousin's home in Wisconsin, walnut from a farm in Northern Virginia and our lake home in North Carolina, cherry from my brother-in-law's farm in southern Maryland, basswood and pear in a backyard in Alexandria, holly from a street development in one of George Washington's old farms (probably an original tree based on the size), Yoshino cherry from storm damaged cherry blossom trees on the D.C. mall, and silver and sugar maple, pine, cedar, plum and oak from our NC home.

When you run out of those types of sources you can search the specialty wood stores for more exotic species. However, use caution in selecting your wood. It can be very expensive and you need to be sure the quality you want is consistent throughout the plank you choose. In some cases the mills subject the woods

such as walnut to a boiling process to spread the dark color in the heart wood into the light colored areas of the softer sapwood. This has an effect on the original rich color of the heartwood. This misleads the customer and you can end up with a lot of expensive scrap. Also, the planks in wood stores usually are rough cut, not planed smooth. The surfaces of these planks age quickly, and it is difficult to tell the grain pattern and the amount of sapwood. This is especially true of cherry. The greatest advantage of store bought planks is they are already dry.

Several factors to realize are:

This "logging" process takes time to do and to wait for the wood to dry.

There is probably up to 50% waste by the time you get to the final pieces of modeling wood.

The cost of tools can be high.

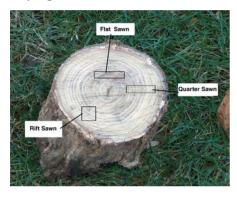
You potentially could be tagged as a purist.

The final satisfaction is high.

The anatomy of the tree is important to understand. There have been many articles in wood magazines on the subject, and there are numerous web sites on the subject. I will only touch on the more important aspects.

The three typical cuts that can be made in a log. The quarter sawn is the most stable, and usually gives a straight grain pattern down the length of the plank. The flat sawn will usually cup up on the ends as it dries (as shown in this location), and will have a more pronounced grain down its length. The rift cut will come out somewhere in the middle.

The entire log could be quarter sawn by making all radial cuts, but that would be a very large project, and the rift and flat sawn sections do have some use after thorough drying.



The initial log as the tree is removed. This happens to be a large oak tree in North Carolina. The log on the ground is 22 inches in diameter and is one of three joined trunks on this tree. It is ten feet long, and very heavy.

Note the absence of knots in this log from the lowest portion of the trunk.

This wood was harvested for "furniture" pieces. Oak is not suitable for exterior wood on ship models due to its pronounced



grain which is not to scale and is difficult to fill to a smooth finish. It can be used for strength members on ship models in locations where it will not be seen.

The 22" diameter log was reduced in length to five feet. It still weighs much more than even two people can pick up due partly to being "wet", The quartering process has begun.

Note the sap wood (light color next to the bark, and the darker coloured heart wood.



The quarters are then cut into slabs about 4" thick. The second slab cut in each quarter of the log is made perpendicular to the first to keep grain as much as possible in the "quarter sawn" orientation. However it does approach the "rift sawn" condition in some areas,

The pieces to the left are "scrap" for fire wood.

This same principle can be used on any size log. Just scale down the size of the cuts to fit your needs. Typically the plank thickness would be between 1" and 2".



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The oak slabs are stacked with spacers (called "sticks') to permit air circulation. The rule of thumb is to allow drying of one year per inch of thickness if no "forced drying" is done. Note that the ends of the slabs have not as yet been coated with sealing wax. Note also the sap wood at the right edges of each slab. This will be trimmed off, thus removing the unwanted bark.



Some black walnut lumber harvested in North Carolina from a rotting tree. (Walnut



and holly trees are much more desirable

when they are alive and growing.) Note the white areas are sap wood that must be removed in the final cuttina These process. slabs were harfour vested years ago, and without even end sealing only

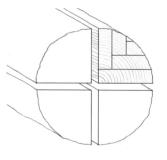




one split can be seen. Due to the poor condition of the tree, there are areas in the walnut that are not usable due to knots, rot and staining. The better pieces have already been used for a model case base, decorations (cross), etc.

Typical cutting of an 8" log into 1" thick approximate quarter sawn planks. The plank grain actually ranges from quarter sawn to rift sawn.

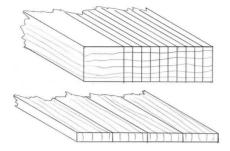
Keep in mind that the final piece of wood required for a ship model is typically 1/4" x 1/16", but usually not over 3/8" thick. This is smaller than the size of this "o" in the drawing.



A stack of sugar maple that has been drying since 1997. The layers are separated by plastic strips. The ends have been sealed. Note the species and date of cutting are marked on each piece.



The Final Step



Plan ahead so your final cuts are approximately as shown in either drawing. The drawing represents final planks of 1/6" thick by 1/4" wide, This is typical of planks required for ship models. See separate shop note on one process for achieving the final planks. The upper cutting process is well suited to representing deck caulking by, prior to cutting, coating the "top surface" with dark pencil, varnish and then black paint, or black craft paper, depending on the model scale and thickness of the caulking.



Wood ready for a model. The model is a Chesapeake Bay Oyster Sloop at a scale of 3/8" = 1' (1/32). The long cherry strips for hull planks are $1/16" \times 1/4"$ ($2" \times 8"$). The holly deck planks are $1/16" \times 1/8"$ ($2" \times 4"$). The holly has black craft paper glued to one edge to represent deck caulking. Note the larger pieces of uncut holly with the black paper attached.

Reference: See the following web page for more specifics on <u>log cutting</u>

Reference: Wood Magazine issues 155, 156, 157 and 158 (May, June/July, Sep-

tember, and October 2004) had a four part article on understanding wood. Perhaps you can find copies in the library or on the web.

A great example of the beautiful "flat sawn" patterns available on some woods such as walnut and cherry is the veneer cut from the logs. The cutting process involves very sharp blades slicing off sheets of wood like unrolling paper towel. These are the patterns not desirable in model building. Generally you only want to keep the heartwood of any log. Usually the sapwood is softer and a different color. I also avoid the very center of the log The pith, and try to work around knots. If you can manage to get a log from the bottom of the trunk it should generally have fewer or no knots. It is not necessary to remove the bark from the log as it will become a part of the scrap wood as the cutting progresses. It will usually be removed with the sapwood. Also I recommend cutting the log down to the minimum size you think you will need. There are two reasons for this. One is the wet wood cuts much easier than dry wood and is not as rough on your saw blades. The second reason is that the wood will dry faster in the smaller dimensions. However, leave sufficient material to allow for warpage, twisting and bending during drying. The initial cuts you make in a log are not critical to the desired final grain pattern of the model wood, especially if the log is large. It is advisable, however, to plan ahead.

The quarter sawn rule is not absolute. There can be some degree of rotation to flat sawn without greatly electing the pattern or the tendency to warp. Every piece cut out of a log cannot be exactly quarter sawn.

For large logs I use a chain saw to make the longitudinal cuts. This is very imprecise, but a magic marker guide line helps. The surface will be very rough, uneven, and probably curved. Cut slabs and chunks of the log down to approximately 6 inches thick in one dimension. After this a band saw can handle the cutting. For modeling woods I prefer quarter sawn lumber. For furniture, model cases, and stands I prefer the plain/flat sawn because of the more prevalent grain even though there is more probability of warpage. After the planks are dry the warpage can be removed by running them through a planer.

If the log is in the 6 to 9 inch diameter range you can usually make your cuts on a heavy duty band saw with a large blade (3/4 inch minimum). Just draw a line down the log and follow it as closely as possible. Continue cutting the wood down to the minimum possible thickness based on the final usage. For me this is usually one to two inches thick and whatever width comes out of the cutting process.

There are mixed opinions regarding the need to "seal" the ends of the wood prior to the drying process below. Some woods, especially when extremely wet when cut, have a tendency to split along the grain several inches into the billet. This is due to the end grain drying and shrinking faster than the rest of the wood. Rather than experiment with what wood will and will not split as they dry, I always seal the ends. I usually use wax, or paraffin as it is called in the home canning process. I melt the wax in an old pan carefully on the stove, then take it outside and dip the ends in about an inch. When in the "field" without the wax readily available I will use anything around that I think might work such as shellac, varnish, or regular paint. These do not work as well as wax as it has been proven and reported in woodworking magazines the paint/varnish finishes are not a complete moisture barrier when used in furniture applications. However they are a help and the wax treatment can be accomplished later.

Now stack the wood in a dry, out of the way location, and allow the drying process to take place, with the rule of thumb of one inch per year. This can be expedited somewhat if a fan is directed on the stack and

left running. In stacking the wood use layers, and place thin pieces of the same wood (or plastic) across each layer to permit better air circulation. A different wood for the "sticks", as they are called, could create stains in your wood.

When the wood is dry it is ready to process into model planks. Now you can go to the shop note on Your Own Lumber Mill on this web site. Just realize that you will still need a band saw, a jointer, maybe a planer, maybe a 10 inch, or so, table saw, a thickness sander, and maybe a model builder's miniature table saw. There is a new very small model builder's planer available. It appears to be an excellent machine, but I find that I have no need for this size. My larger equipment handles all the jobs, and I do not need the extra investment in such a highly specialized machine. The thickness sander performs the dimensioning perfectly down to the thickness of a sheet of paper, if necessary. Sanding "lines" (scratches) in the wood are no problem at all, and in fact, after the final installation of the wood there will almost always be the need of fine sanding.

Have fun with woods!

On The Cover



On the cover of this issue is the Stadiometer that was in last months "What's This" section. Have an interesting picture you'd like to see on the cover? We'd love to hear from you. Drop us a line at msbjournal@modelshipbuilder.com with your picture.



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HMCS Athabaskan

Description:

Blazon On a field argent, a North American Indian clad in buckskin breeches, leggings and beaded moccasins, but bare to the waist except for a necklace of bear's claws and blue shells, and ear ornaments of the last The Indian wears the full-feathered headdress and is mounted bareback upon an Indian pony being halted from the trot. The Indian holds a red bow and arrow in the "ready" position, the latter pointing down.

Colours:

White and scarlet

Motto:

We fight as one

Battle Honours:

Arctic, 1943-1944; English Channel, 1944; Korea, 1950,1953

TRAWLER'S SLANG

by Gene Bodnar

Directions: Match the definition with the appropriate term found at the bottom of this page. Each term will be used only once.

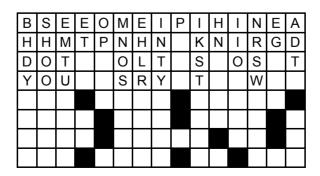
1.	Compartment into which herring a	are shoveled.
2.	Trawler that carried duty-free sch	napps and tobacco to sell to its crew mem-
	bers.	
3.	Hidden, uncharted reef.	
4.	Dockside scrounger on the look-o	ut for fishermen who may have money in
	their pocket.	,
5.	•	awlers meet at sea.
6.		
7.	·	ca, Canada, Newfoundland, France, Spain,
	or Portugal.	,, -, -, -, -, -, -, -, -, -, -,
8.	5	guides a trawler to where he saw shoals of
	herring, pilchard, or mackerel.	9
9.	- · · · · · · · · · · · · · · · · · · ·	he legal size.
10.		-
11.	· · · · · · · · · · · · · · · · · · ·	
12.		
13.		t another vessel can be builtfrom its profits.
14.		ic another resser can be summen its promes
	7. Vessel that line listles for cour	
	A. ADMIRAL	H. DOLE
	B. BALKER	I. FLEWER
	C. BETESTER	J. GRAND BANKER
	D. BLINDER	K. KID
	E. COD BANGER`	L. MARDLE
	F, COPER	M. MOTHER
	I, COPEN	M. MOTHER

NAUTICAL KNOWLEDGE

N. WESLEY HUNTER

G. COW KILLER

An interesting quotation has been fit into the diagram below. You will have to rearrange the letters considerably to find it. Looking at each column of letters vertically, distribute the letters in it into the empty squares directly below. The black squares show you the spaces between the words in the quotation. They'll help you decide just which box to use for each letter over it in order to spell out the quotation.



CRYPTOGRAMS

by Gene Bodnar

The words in each Cryptogram are related to a single subject. A simple substitution code has been used for each cryptogram. Frequently used letters and double letters are clues that will help you break the code.

Ship's Crew Example: Deck hand	Parts of a Sail Example: Cringle				
PFXERL FE FLPX	тијн				
H M P P F T B R L	UJOGBS				
Q G L X E P F E R	I W B B U F				
P G B X V G Y F T	OUUC IJBH				
FBPGLFZ	IUVVL IJBH				
XRFPFT	IWVFOWZU				
QMLREMYPFT	ZUJE				
H M K X D F G T	F J I V G B S				
HFLYRTERL	KVUX				
H F N G T N M S	VUUKT				

NAUTICAL ALPHABET

There is one place for each letter of the alphabet in the 26 empty squares in the diagram below. Fill in each letter so that a nautical word of at least four letters is formed reading across only. Not all the letters to the left and right of the empty box are used; it's up to you to discover which ones are needed to complete the words. Only one arrangement of all the letters of the alphabet will complete a word in each row. Plurals are not allowed. Cross out each letter as you use them.

ABCDEFGHIJKLMNOPQRSTUVWXYZ



ANSWERS:

Trawlers Slang: 1-K, 2-F, 3-D, 4-N, 5-L, 6-A, 7-J, 8-B, 9-I, 10-H, 11-C, 12-G, 13-M, and 14-E.

Nautical Knowledge: The only thing some men know about ships is that port is red.

Cryptograms:

Ship's Crew: Master at arms; Commander; First Mate; Midshipman; Admiral; Seaman; Foretopman; Coxswain; Carpenter; Cabin Boy.

Parts of a Sail: Head; Earing; Bonnet; Reef Band; Belly Band; Boltrope; Peak; Tabling; Clew; Leech.

Nautical Alphabet:

		-		•					
				J	Е	Т	Т	Υ	
		S	Т	0	Ρ	Ρ	Е	R	
			R	Α	-	L			
		С	0	С	R	S	Ε		
		С	0	Х	S	W	Α	Ι	Ν
			S	С	U	Р	Р	Ε	R
	Р	Α	W	L					
		Κ	Е	٧	Ε	L			
				В	L	0	С	K	
		М	_	Ζ	Ζ	Е	Ν		
	V	_	Z	D	L	Α	S	S	
	ш	Α	Т	-	Т	\supset	D	Е	
		S	Ξ	Е	Α	٧	Е		
			S	Ρ	Α	Z	Κ	Е	R
				Ø	J	0	_	Z	
		L	_	F	Е	L	_	Ζ	Е
		Α	В	R	-	ם	L	Е	
			O	Υ	O	L	0	Z	Е
		М	Α	G	Α	Ζ	_	Z	Е
				S	Τ	R	0	\supset	D
В	-	G	Η	Т					
			Т	Τ	-	М	В	ᆚ	Е
	G	R	0	М	М	Ε	Т		
	S	Ξ	Α	Ν	Т	Υ	С		
Ρ	L	Α	Ν	K					
		Т	Н	W	Α	R	Τ		