## THE GASTONIA GAZETTE.

Devoted to the Protection of Home and the Interests of th County

ments are perfect, within a thouse of an inch.

When this tube reaches the factory,

the car which brings it is run within the building, and the first of the big

machines which are to handle it during its different stages lifts it off and drops

it beside other tubes on the floor of the

to beside other tibes on the floor of the building. This operation is performed as easily and gently by the travaling craces as a man might handle a three foot section of one such land pips. There are three of these craces at Wa-tervilet—two of 50 tons such and one of

130 tons. They are simply great bridges

which span the building's width and run its length on trucks not unlike car

trucks on elevated trestles, one each side

One of the chief objects in building

up a gun rather than casting it is that it may have a greater strength than an equal amount of cast or forged steel of

the same proportions. Another advan-tage is that by making a gus in thin layers the quality of the metal may be

known all the way through—a thing impossible in thick castings. When the tube has been measured, it is lifted by one of the big cranes to a

lathe of monster proportions, and it is "rough bored," as it is called. This process requires several days, and when

completed the crane again comes and lifts it to another lathe, where the shrinkage surface for the jacket is turn-

ed. It is then a bright, smooth shining cylinder. The jacket is simply a steel

cylinder largo enough when expanded by heat to go over the tube. It covers

by heat to go over sue rups.

ready, the most interesting, the most delicate and the most significant of all

the processes comes next. This is the operation of "shrinking." The coat is to be heated until it is large enough to

go on over the tube, and then, cooling.

with such irresistible force that the

mighty steel cylinder will be compressed until its bore shrinks under the enur-

In the center of the factory is the shrinkage pit. It is an excavation 50 feet deep, with an exterior opening 40 feet long and 20 feet wide. When they

began to excavate it at the Watervliet

factory, it was found that solid rock lay undernoath the building to more

than that depth. The pit is therefore nothing but an excavation into solid

rock. No retaining walls were needed

A furnace occupies a portion of this pit, in which the inckets and hoops are

beated. There is at the bottom and built upwar: some distance apparatus

by which one of the monster guns may

be balanced and clamped immovable in

When the packet is put on and has cooled, the gun is lifted from the pit and carried down the room to the lathe.

The processes by which the tube was

propared for the jacket are repeated with the different sets of boops. Five times the 13 inch gun makes the jour-

ney to the pit. Each time it comes out

went in, and each time it assumes more

and more the appearance of a cannon

losing its barmless appearance as a cyl-

inder of steel and loaming up formida

ARSEKAL AT WATERVLIET.

it goes to the boring lathe, after which

the breech thread is out and the brocch

screwed on. There is but one stop of es-

sential importance yet necessary—it must be made a rifled gun. Its inside

must be grooved with a spiral groove, which will set the shot whirling when

the time comes for it to speed on its de

structive errand. Again the gun is put

into a lathe. Three days are needed to rifle it. The muscle end is finished and its

sharp edges are smoothed and polished.

The brooch plate is finished and sights are

put on. The gure is weighed and marked

Its logbook is packed away for reference,

and some fine day the gun will be taken to Sandy Hook to be tested. It has prob-

ably been eight or ten months since th

tube was taken from the car which brought it, a steel forging, from Penn-

sylvania.
Six weeks is practically the minimum

of time for the making of a modern

gon, and to finish one within that space

everything would have to go marvel-ounly well. The "treatment" of the steel would have to be a success at the

very first attempt—something that does

not often happen-and the first tests

would have to show that the govern-

mout standard had been reached. Of.

tener than otherwise these results can

only be circulated through much trying

and the expendienre of time. A batch of

guns may thus take monti s in the mak-

ing, while good luck may being it down

None of the gross is named. They are

all numbered, and from the moment the

ald iron for the government its number sticks to it. Somotimes when a success-

ful shrinking has taken place or a great gun has gone out to make its way in the

world the men who have done the most

work on it christen it after their own

fanay, but omeans.

It was sever been given. fancy, but official regulation of names

tube is received until the gan become

After the last hoop has been put on

ble, massive and threatening.

vertical position.

the tough band of steel is to contr

When the tubo and the jacket are

its length from the breech.

of the factory. The larger one works by

electricity.

M. P. MARSHALL.

Gastonia, N. C., April 21, 1898.

(Chair in Advance.)

No 16.

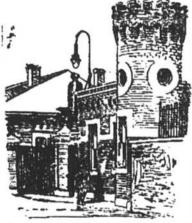
## MAKING A BLUEJACKET.

How Uncle Sam Turns Landlubbers Into Able Seamen.

ONLY THE BEST MEN PICKED OUT.

What Awaits the Patrick Who Goes to Recruiting Office to Offer Mis Services. Qualifications Which the Men Who Mas Our Warships Must Possess.

Within the next few months about 2,000 men will don the navy blue and sign articles to give their whole attention for the next three years to the manning of Uncle Sam's fighting ships. Possibly the number may be increased to 8,500. Ordinarily the annual appropriations allow the adding of only 1,500



BROOKLYN NAVY TALLY. men and boys to our naval force each year, but the \$50,000,000 cmergency appropriation makes the extra enlistment possible.

Heretofore recraiting for the United States navy has been done exclusively on the receiving ships. These are stationed at the navy yards in Brooklyn, Charlestown, Norfolk, Washington, Philadelphia and San Francisco. Now, however, the fresh water milors are to be given a chance. By a recent order from the navy department mayal recruit-ing stations are to be established at various river and lake ports in the west

Although Uncle Sam is badly in need of men for the navy, even in these times when the wave of patriotism has swelled the number of applications to more than ten times the usual size, he is not willing to accept anybody that comes along. The man who is under 5 feet 4 may be a great deal braver and much more patriotic than the hulking big fellow who stands & feet in his stocking feet, but the little man will be rejected and Uncle Sam will wait until the big fellow makes up his mind to serve his country at \$16 a month.

No matter where he signs articles. the naval recruit finds that the real door to the navy is the imposing Sands street entrance to the Brooklyn mavy yard, for it is to that point that all newly enlisted men are shipped. Before he gets a mess number on one of the new war-ships he must first take a course of training on Gob's island, which is a part of the Brooklyn navy yard. While there he makes his home in the picturseque hulk of the old Vermont, which duty as a training ship.

The man who aspires to wear a blue shirt and draw government pay soon discovers that Unclo Sam is a critical employer. The first representative of she government whom an applican meets after he has passed the vigilant marine doing sentry duty is the recruiting officer. This individual is apt to have a keen eye and a sharp tongue, and if the patriot has acquired the idea that he is about to confer a favor on his country be soon forgets it.

He is first saked to state his are and nationality. No man who does not upderstand and speak the English lan-grange can be calisted, and preference is given to those who can read and write. Those who are American citizens by birth or naturalization or have declared their intentions of becoming citizens are always desired ruther than foreignors. Recently this has been more strong-ly insisted upon, and the men who have



WEMAED EGNAD DRILLIEG OF THE COR been enlisted in the last two or three weaks have been almost without exception American citiscus. Those amon

them who see of foreign birth are most ly "north countrymen"-Korwegians redes and Danes.

After the would be recruit has satisfied the officer upon the above points he is examined as to his knowledge of the sea or of some trade required on ship-board. This is to determine what his rating shall be. If he is over 18 years ald and under 25 and how on knowinge

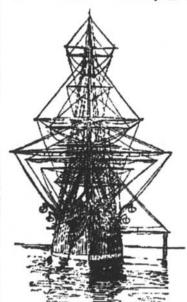
of sea life, he may be culisted as a landsman, the lowest rating, at the pay of \$16 a month. If he is an honorably discharged ex-apprentice or if he can prove that he has been at sea two years, he may be taken as an ordinary seaman. The age for this rating is from 18 to 30

To insure the collistment of mone but competent men in this branch the applicant is turned over to the boatswain for examination us to his abilities. He must show himself proficient in reefing. steering, knotting and splicing and in various other details of the sallor's craft. This, it will be observed, is in the case of a recruit for the "ordinary seaman" class. If he aspires to be a "seaman," which is a higher rank, he must be between the ages of 21 and 35, must have been at least four years at sea before the mast and must pass a still more rigorous examination in scaman-ship. Ordinary scamen are paid \$19 a month and scamen \$24.

On the modern war vessels the posi-tion of the machinist is a highly important one, and is much better paid than that of seaman. Cundidates for this department must understand the machinist's trade thoroughly as that is practiced on land and must know the names and uses of the various parts of marine engines. If a man has had no experience in the engine rooms at sea, he is enlisted as a muchinist of the second class. puy \$10 a month, and if he has had a year's training with marine angines he is eligible to the first class, pay \$55.

When the recruiting officer is satisfied that an applicant is fitted for a certain rating, he sends him immediately to the doctor, to be examined as to his physical condition. Many are rejected at this stage, for the maral surgeons are strict. In the long list of physical defects, any one of which will disqualify a recruit, are, besides various chronic diseases, deafness, poor sight, a marked impediment of speech and unsound touth. Many recent applicants have failed to come up to the standard in this last particular. The general development and soustitution are also taken into consideration, only intelligent men of robust frame being desired for the service. If passed by the doctor, the recruit then signs an agreement to serve for three

As soon as they are finally curolled. the recroits are supplied with outfits of clothes, for which they themselves must pay. Their food is served out to them in rogular rations, in the same way as if



THE TRAINING SHIP KEEK.

they were at sea. His pay, his food and his lodging are the emcluments which Jack receives from the government. He also has free medical attendance if he is sick, but clothes and extras he must buy out of his pay.

He is next sent to the Brooklyn navy

ard, where he may remain for weeks or months. The longth of his stay there epends upon the demand for men. In the meantime he is trained. He spends several hours each day in various exercises which develop his muscles and quicken his understanding. He learns to obey orders and appreciate beaus as stable article of dist.

But even after weeks of this sort of thing be is still a landsmun. He doesn's realize this, bowever, nutil a new ship goes into commission and be is told off is one of her crew. Then he begins to learn the intricacies of the imeiness. It takes him a week or more to learn to sleep comfortably in a bamasook and longer than that to tumble out trice up his hammock neatly and dress himself within the limit of ten minutes allowed from the time the first notes of

reveille sound at day break. In time he acquires sea legs and the art of making trousers that fit around the hips, as none of those issued by the havy department ever do. In the course of three years be is a thorough man-o' war's man and is ready to leave the service, which be generally does. Why? Well, mainly because there is nothing to look forward to. There is in our navy absolutely no chance at all of promotion. We train our paval officers up as if they were superior beings to the men they are to command. We foster an offiof casts as jeniously as do the Brahmans. A cockney bus driver has more chance of becoming a peer of the realm than has an American sailor of attnining a

commission in the pary. There is nothing new about this, for the system upon which our navy is usuaged has often been criticised, but the men who sign articles do not always thoroughly understand what an impassable gulf there is between the enument sailor and graduate of the Naval academy who lives in the wardroom aft. He knows all about it when he has served for bros years, and if he has left a spark of ambition he goes hate the merchant ma-zine service, where there is always a chance to rise, or else quite the sea and becomes a landsman cross more.

**HOW CANNONS ARE MADE** 

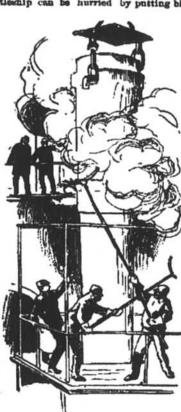
Building Peace Compellers an Intricate Process.

UNCLE SAM'S BIG GUN PACTORIES.

The Huge Rifles of Medern Warfare Not Cast In One Piece, but Made Up of Many Sections-Some Interesting Features of the Work.

Whenever the distant growlings of the dogs of war mutter through the medium of big headlines you are sure to read that "the work on big guns for buttleships and coast defenses is being pushed along." Don's you believe it. No one ever undertook to rush work on a big gun and made a success of it.

The construction of a fort or a battleship can be hurried by putting big



SHRIPEING ON A JACKET.

forces of men to work, but none of the steel monsters which guard our coast line was born in a burry, nor will any of their future comrades be rached into

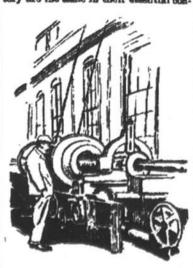
Gunmaking, when the guns weigh thousands of tous, is a deliberate art. With ponderous dignity the luge rifles come into being, and all their later movements are correspondingly slow until the time comes for them to set in real carnest—the suprome moment when with a mighty roar, a tremendous belching of fiame and smoke, they hard their gigantic missiles across miles of sen to seek out and sink the audacions

Uncle Sam has two big shops where he turns out peace compellers. One of these is near Washington, where the big guns for the navy are made. The other is at Watervliet, N. Y., where oth rifles, guns, mortars and other pieces of heavy ordnauce. It is at the latter that the biggest gun in the world, destined for the defenses of New York hurbor, is now in course of construction. There is another arsenal at Watertown, Mass. near Cambridge, and there the new disappearing gun corriages and beavy projectiles are made.

The post at Watervliet was established in 1807, and the reservation ambraces a tract of 47 acres. It was then called Gibbonsville. This unpoetic name was changed to Watervliet in 1817.

It is only within recent years that the government has been making any of at modern of the large guns. A board of officers, acting for the ordnane department at Washington, was directed by not of congress March 3, 1883, to investigate and report on the needs of this country for coast defenses. In accordance with this act a report was submitted Jan. 25, 1880, recommending that about 1,000 guns be mounted for protection at 27 points along the Atnatio and Pacific coasts. The new building is 1,000 feet long, with an average width of about 150 feet. The annual output is twenty 12 inch, foorteen 10 inch and twelve 8 inch gops.

The gons made in the Watervliet factory are the same in their essential con-



RIPLING A BIG GEX.

struction as those made in the great Suropean facturies. The forgings are brought to the factory ready for use, soming chiefly from the Bethlebom and Midvale works in Pennsylvania. Amee-

lean steel is used entirely. The modern gan differs from the old

in this—the old one was east and the modern one is built. The old gun was a single piece of metal. The modern gun is a mechanism. It may be taken spart. HORNETS OF THE SEA.

MEN WHO MAN TORPEDO SOATS The old one was simple and the new one is complex. A steal tube, forged, 419 inches long, with walls 5 inches thick at one end, weighing 15 tons, is the basis of a 18 inch modern gun. With this as a core there are put around it 17 other cylinders of steal. The adjust-TRAINED TO KILL AND ME.

in Peace These Narrow Craft Ase Plant ing Torture Sells - In War They Are Almost Certain to Become Steel Coffine For Cheers and Crow.

No, matter how much in disputa and be the value of the torpade boat in mod ern naval warfare one thing is agreed upon unanimously—in peace they am most uncomfortable egats on which to

most uncomfortable emits on which it serve one's country.

The other day the Winslow was credered from Norfolk navy yard to join the flottila cruising off Key West. A heavy see was breaking as she reached the capes, but she plackily stuck her nose into it and turned southward with hardly more than the top of her smoke-stack out of water. If you know how a long, narrow boat behaves in a seaway, you can imagine how little comfort her

you can imagine new little comfore her crew had during the trip. He little is there to make life bearable on these torpede heats that in the Eng-lish navy they are obliged to pick men for torpede beat service and give inoreased pay to the entire crew and officers of the fictills.

It is impossible to avoid this discom fort. The torpedo boats are constructed primarily for speed, and their lightwhile enabling them to make fair speed in calm weather, makes them almost unimbabitable in bad weather.

In a recent trip of a torpedo boat cruss the Atlantic it was found im-cessible for days at a time to light a fire in the cook's quarters. The officers were so cramped in their cabins that they were forced to sit with their feet propped up against the sides of the boat. Every one on board during rough weath-



THE TORPED) BOAT WINSLOW. er was hurled from side to side of the parrow steel tabe until all were a mass of bruises and contusions. To cap their troubles they slept with the unpleasant knowledge that beneath them were stored explosives sufficient to blow them beyond the clouds.

The discomforts in time of peace are

bad anough, but in wartines the tor-pede beats may well be called the for-lore hope of the fleet. Enough has been seen of the dangers to show what small re is of through a torpedo duel. The most trag-ical event of recent naval battles in which a torpedo boat took part occurre on the night following the battle of the Yalu, when the Chinese ships had sought shelter in a convenient bay, with oly a small outlet to the sea. Through this opening a Japanese torpedo boat stole during the night to the attack. The commander of the Chinese vessel Ting-yuen and a number of his crew were on deck expecting some atta When signaled by other vessels that the torpedo boat had been sighted, the Ting-yuen began to fire in the direction from whence she came. The smoke from the guns made it impossible to see the attacking boat, and the command was given to cease firing. The Chines compander next discovered the torped boat about half a mile distant, coming at full speed toward the ship. The gan crew immediately opened fire upon her with all their machine and rapid fire

The Japanese succeeded, however, in discharging her torpedo. A duil, muff report announced the explosion under the quarters of the ship. The result was a hole in her bottom that practically wrecked the ship. All her compartment were filled with water and the fires extinguished. As the weather was bitter oold-90 degrees below zero-the ship

The fate of the crew of the torpedo boat was simply appalling. She was discovered the following morning float-ing in the bay. The first man who boarded her found what was left of the crew frozen to death on har deaks. The magineer, ma binist and fireman bad been scalded to death through the outting of the steam pipes by one of the mealler shots from the machine gun They were all below decks. The chief engineer was found near the hatchway of the sugine room, fromm stiff. It was evident, however, that he had died from the scalds and burns. Out of the entire onew of 14 men not one escaped.
So you see that these hornests of the

sea do not have things all their own way even in war. I'hat they folly realiss this is shown by a recent remark of has charge of the torpedo boat flotilla. "How to kill and how to dia," may Lientenant Kimball, "must be le in the trade of war. A knowledge of the latter is considered nowe important than the former. Mess are trained to the interior, him are trained to kill offectively; they are disciplined to die properly. The men of the flottile know how to accomplish the first part of their trade; they can be relied on to

WHEN COLORS GO UP. THE ARTILLERYMAN,

WHAT OCCURS WHEN A WARSHIP A GREAT DIFFERENCE BETWEEN THE GOES INTO COMMISSION.

Maral Coremony Full of in Officers and Crow-To the Landsman 2t In Apt to Be Impressive and Pictur-

A warship "goes into commission" when the officers and crew take formal possession and the skip is ready for sea. The ceremony is usually an impressive and inspiring one, especially if the craft is a new and important addition to the navel force. Just now, when we are noquiring a new warship every day or two, the ceremony is quite a con

It usually takes place at some mayy yard, almost always, in fact, although an the case of the vessels bought from

yard, almost always, in fact, although in the case of the vessels bought from foreign countries, crows are sunt to the ports where the boats are lying and there the official act course. Generally, however, a ship which goes into commission is either a new ship which has sever had either officers or crow or an old one which for some reason has been laid up for some time and which has emsequently been out of commission.

Briefly the ceressony consists in the reading by the new commanding officer of his orders or authority for taking charge of the ship and the holsting of the national colors. But as the event is usually not an everyday occurrence the naval officers have managed to make out of this simple act a ceremony full of dignified solemnity and not lacking in picturesque qualities.

When an officer is given command of a ship, it is often the practical result of a recent promotion and this in itself adds interest to the affair. Many of his subordinate officers, too, have received new commissions. The members of the crew, who perhaps have been assembled for the first time, naturally look with some interest on the ship which is to be their home for years to come and take a mental measure of the men who are to be their memmates. Each man faels like a new boy at school.

The first thing to be done is to range the crew, generally in triple formation, on the deck amidships. The officers are all wearing their dress uniforms and may resplendent in gold braid and brass buttom. The high officials of the nevy who are present wear their chapeans with waving ostrich plumos and walk about as stiff as ramrods. At a respectful distance the invited guests, numbering among them the wives and coughn and slaters and sweethearts of the officers,



вотяттуе тил согов

look on in admiration, while still bemarines are the solf invited spectators ready to unbottle their patriotism when the time arrives.

The new commanding officer opens the proceedings by reading the orders by which he is authorized to take charge of the ship. This done, the official who is appointed by the navy department to is app formally hand over the vessel steps for ward and makes a little speech. He expresent the hope that the skip and the men who are about to man her may have all sorts of good fortune, perhaps he adds a few words of advice, and he winds up by talling the captain that he is now in charge of the ship.

At these words a waiting bugies blows a spirited call, the band, if there is one, starts in on some appropriate air, and the stars and stripes are run up to the missen peak. At the same time the union jack is broken out at the face truck, and the captain's pennant hoist

ad from the fore peak.

Then the captain is really in com-mend. From that moment until he id relieved he is personally responsible for his ship. If she rous aground, collides with a mud scow or is blown up by an enemy, he is liable to be court ms fieled.

Within the last few weeks this cere mony has been gots through at the League Island mavy yard no less than four times, the ressels to go into commission being the craisers Minnespolis and Columbia, the ram Katabdin and the monitor Mianto

Of them new ships the Entabdia is the most interesting, for she is the frenk the most incareating, for she is the freak-bent of the may. The is a heavily ar-tiored whalefack rum, with a wicked steel prov as her principal weapen of effection. No modern vessel of this kind has ever been used in actual warfars, and, in fact, the Katalidis is about the only craft of her kind in the world. The Kutahdin was the idea of Admiral Dun-iel Annues, now retired, and the is us. iel Anness, now retired, and she is re-gar led as a surt of menistrusity in movel construction. She was built at Bath, Ma., In 1888, by the Bath from works.

LIGHTS AND THE HEAVIES.

a and as Good a Me

With the mounting of many new gans for coast defense work and the strengthening of the army, all of which is now in full swing, comes the monestry for organizing several new artillery regiments. This means that thousands of sivilians will be asked to called and With the mos

sity for organizing several new artillery auginemate. This means that thousands of civilians will be asked to called and learn to handle commons, hig and little. The average mountiliary citions knows as much about the work an artilleryman is expected to do as he does about Chinese etiquete. If he thight of calleting, he is probably moved to apply for either the light or the heavy lument of the service, not by any definite preference, but from some trivial and superficial chearvance of the work of one or the other. Fortups he has seen a light lattery in the field executing symbolic for the handle or a story came at full speed form the road to wheel and stop at the word like machines. He has envied the poungfallows who set on the galloging house like machines. He has envied the poungfallows who set on the galloging house like statues, but who showed they could nove like mechant when the the shows the word like artillary insuch and learne only after an interview with the secretizing offices that with one man in 100 has the qualifications which fit him for the work.

Light artillary soldiering, as it is considered in the United Status army, is largely a matter of housementally, and the light artillarymous are ploked for their natural skill and aptense with house many and his duties are heavy, but he is conscied for this to the reflection that he belongs to the create branch in the whole military critics of entirence have make and imply and controlled for his ten the server of the United States to be an nimitle as a circus rider and an absolute master of housemanning, and to be writed for horsemanning and tupid and scientific handling of the pieces. But while the American light artilleryman has get to be an nimitle as a circus rider and an absolute master of horsemanning, he does not have to us his head nearly so much as his "in her, heave," comercied in the heavy artillary make.

Then the prospective recret may have watched the men who fire his



GOING INTO ACTION—LIGHT AUTTELKEY. will find less difficulty in entering this branch of the service than the of but once in it he will probably wish

but once in it he will probably wish himself well out of it.

It is commonly known among military men that by the time an American artilleryman in the heavy branch has put in a three year enlistment he has picked up only a smattering of the many duties and drills that are imposed upon him as the heavy artillery service is as present organized. If all artillarymen who put is one enlistment in the issay branch the heavy artillery force of the United States army would be on a par with any in the world. But men in the heavy artillery have of late years been getting enough of it is one estlictment, and when they enlist again a great many of them join the "dough boys" in the infantry regiments for the side of the comparatively easy "one soldier,

the comparatively day "one soldier, one gan" duty therein.

In the first pines, the United States heavy artilleryman has got to become as good as infantryman as the mass in the infantry resimust. He president as good an infantryman as the man in the infuntry regiments. He receives any amount of infantry drill and it is a fact that the heavy artillery soldiers in the regular army bundle themselves units as well in infantry formation on the regular infantrymen. It requires about one-fifth of an entire lattery to many one of the big sleep

buttery to man one of the big slegges, and the men are drilled upon them by the numbers—that is, the granter gives the commands, and the men perform the movements called for by their numbers in the formation of the gerform the movements called for by their austons in the formation of the gun's crew. But each man is required to meeter the featies of every member of the gun's crew, and for this purpose he is shifted about to the different numbers at every drill. As there are a thousand and one movements to be executed in getting a great gue served and into firing position, the mastery of this hig ran drill, even on the old fashioned pieces of ordaneses provided for the purpose in the United States army is he minur matter for a recruit.

Unless the United States army is he ignated as a satisfact matter for a recruit with the lignance of ordaneses of the server of the signature of a three years that is the ignated as a satisfact means of a three year entistances, but he drills on the hig guns every weekday. If he has an expensive he at any even access as gunnar entities, he may even seven as gunnar entities, he may even seven as gunnar within a year or as