Fool "The Who Looked Forbidon den Things."

INTHE TWELVE-INCH TURRET

Some one We are on the range. calls, "Starting-buoy," and you know that in another minute this doubletwisted, original finitation of billyblue hell will commence. You reflect that a blast pressure of 12 pounds to the square inch will kill a man. You know that the pressure on the air near the muzzle of this gun-whose breech you are beside, when it is fired, is several tons to the square inch. You remember that only a few years ago a green sailorman stood offside 16 feet, that some one called to him to lie down just as the gun was fired, that he was in the act of lying down when it was fired, but that the suction of the air going with the shell drew his head from his body and broke his neck. This does not add to the pleasure of your situation, for you can easily reach out there-If you dare !-- and pat that cold haunch.

You look about and observe your companions in the lethal chamber. They are eleven: two trainers, two pointers, one hoistman, one tripper, two loaders, a rammer and a plugman. And the eleventh, the unnecessary one, the other outsider-he is the umpire; he wears the single stripe of the ensign, a commissioned officer, and he is just about as keen as you are to keep things straight, to omit flare-backs, side-step the bursting of powder-bags

The tripper is a slight lad, a boy of perhaps 18 years. Neither has he ever seen a big gun fired and yet he is to stand there and pull the lever that thrusts the shell and its following powder-bags into the carrying-case before the breech. In an undershirt, a pair of trousers and a thin smile he waits the word. He was caught only a year ago on the streets of Minneapolis, whither he had come

Far up on the left of the barrel, encased in a leather head-dress, is the turret-trainer, his right eye locked to the telescope that pro-jects from the hood above him. He might be a diver, with that curious jumble of intricate wires and the green speaking-tube trailing aft. He grasps a big wheel, as a chauffeur his steering-gear. and moves easily on its barbette the 130-ton turret. Below him, between his legs, his assistant sets his sights. They might be riding pickaback, these two, up there along the slope of that sleek

warship; his weakness and his like half a million

year-old boy, and the powder-bags look very much the same as a hundred-pound sack of flour, cylindrical in shape and studded with lumps where the sticks of nitro protruce.) The tripper pulls the lower lever from his car, the first powder-bag falls; another lever, and the second is in. The brass rammer forces them behind the shell. The plugman gives a huge wrench to the breech, and its mushroom head slides up on the powder-bags. The loader slips a primer in the touch-hole, then folds down a tiny piece of steel that forms the electrical connection.

All is ready. These are the hard moments. You clasp your cap tightly in your hand. You become rattled. Though you are locked in the coffin there might be a heavy breeze blowing, the way your trousers flap against your legs. The car has ground its way back; the shutters have closed; the crew it at attention. The place is as clean and neat and silent as at an inspection.

It is now up to the pointer. He grasps his unwieldy mechanism; he closes and wrestles with the vast and complicated steel. The ship moves on her stately and predetermined way, while the seconds fly, and every second counts against the prize-money this pointer may earn, against the trophy this ship may win. The barnbig bull's-eye dances, fantastic, across his magnified field of vision. He twists the wheel a hair and the muzzle of the gun responds by an inch; he reverses, and up, up she surges slowly, imperceptibly. The ship is waiting of the ammunition hoist directly above the magazines the navy has fought one of its sternest internal wars and the war is still far from finished; nor will it be over until a sealed tube has been subst

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tuted. The umpire is only too well aware of this danger as he critically watches every move of the crew. The utter silence still prevails. The gun has been once fired and is being loaded for the second time; the first minute

has not passed, and still not a word. The second shot is fired. Again the easy, unbellerable recoil. Less than anywhere in the ship do you feel it here at the trunnion of the gun. "Tis always so. In storm-centers is the calm; in the core of the acora dwells the germ. As Disraeli said, the only joy in being prime minister lies in the certainty of your knowledge that nothing is happening on the inside. Here, in the lethal chamber, at the nerve center of destruction, prevail only silence and quiet.

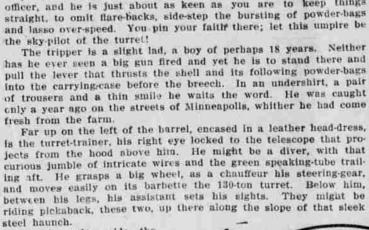
A third and fourth time the smooth recoil. The crew works with the serene delight of a Geneva clock, vastly complicated, but of a single purpose and a single thought. You are locksd up with a single gun. Separated by a skin of steel is its mate. When that speaks the turret is jerked on the barbette and the unfired gun

> from it. e q u i librium. This is the back lash. After every shot the trainer. with quick twist his of wheel. subtly ab the sorbs backlash. For the fifth time the shutter opens, the grind ascends, the tripper to pauses flip his lever, when

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pulled

Silence!" The tone is raised. It has anger, c o ncealed but glow



On the other side the pointer, with his assistant. also rides pickaback. Here is the eye for which this whole ship was built: here the nerve and quickness for which the 16,000 tons, the seven millions of dollars, the five years of making, have spread their august being. His accuracy may sink B ruln a nation. To find him

HERE IS SOMETHING UNSPEAKABLY SUBLIME IN THE FULL-GROWN CRY OF A GREAT GUN

on the voice of his index finger. and he grows anxious; his whole being pours itself along the wheel a resolution to of that terrible problem. An hour, a minute, five seconds, a week-how much

ing, like the quick flush of a nervous woman's face. The snap of the "Silence!" cuts like a whip.

As though paralyzed, the action of the turret dies. The loader pauses in the act of inserting the brass connecting-tray, the hand of the tripper falls from its lever, the sight-setter slips from his head-dress, the holstman crowds up in front of the umpire; the open breech of the gun exudes the thiunest cirrus froth, like the first wreath of smoke from a choice Pinar del Rio.

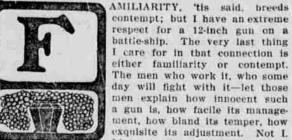
The umpire points sternly below. It is he who has called. The holstman and the loaders climb down the hoise and pick up some light-brown chunks that look like broken sticks of horehound candy, pierced with

air - holes the long

way. "Cease firing!' c o mmanda

EXPLOSION OF A TWELVE-INCH SHELL

dollars has been spent in a single month. In three minutes now he can qualify and have \$10



ment, how bland its temper, how exquisite its adjustment. Not I. Listen to those men a while and you will believe that it is less dangerous to be locked inside the turret while a big gun is being fired than it

is to cross Broadway at Twenty-third street. Perhaps, it is, but I prefer Broadway. And yet, the fascination! A great gun has for the

Imagination the potency of evil itself. Emblem of force, symbol of destruction, it stands serene, majestic, while round its muzzle gather all the forces of the race's struggles, and through its breech march hate, pain, grief, ambition, power and death.

"The torpedo," said the captain of a battle-ship to me one night at a dinner, "is more or less of an experiment, a toy. It would be practically impossible for one to sink a big ship. The only thing I am really afraid of is a 12-inch gun."

The next day I went into the after-turret when the ship was on the range and in full and sympathetic accord with the captain stood beside the breech of one of those guns while it dropped four shots into a target a mile away; stood there with my cap in my hand, ready to clap it over my face in case of accident, cursing the curiosity that led me to that lethal chamber. Then the wonder of it came over me-the silence of the gun-crew; the stealthy leap of the rifle barrel, like the spring of a grasshopper; the quiet, dull report which scarcely trembled that stately moving fortress; the sour-egg smell of the nitrocellulose stimulating the nerves; the sweet, sick subtlety of ether

halling the overwrought brain. When they shut the steel door that caged us in 1 slipped into a funk and until the first shot was fired my nerve was gone. The sides of my courage account footed up:

Debit: (1) Imprisonment in an oval case the shape of a coffin, the sides formed of solid steel nine inches thick and the top of steel just as solid and five inches thick; -(2) filling a quarter of that case the back third of a 12-inch rifle barrel, ready for action; (3) below, an open chute, with a steel car bringing the shells and powder from the magazines still farther below; (4) the stern, silent faces of the gun-crew, which exactly resemble those faces seen at places of execution; (5 to 100) memory-the knowledge which you cannot fight away that in just such a situation as this the turret-crew of the Georgia went to

death, and that no one has ever found out how it happened; that in precisely the same way the Mis souri burned to death 29 men, and that not one in that steel cage escaped.

Credit: (1) The face of the umpire. Stop-watch in hand, he stands behind the breech, looking down into the powder-magazines. You know he is there to prevent recklessness. Though these men are firing against time he will let them do nothing foolhardy; if he errs 'twill be on the side of caution. (2) The knowledge that thousands of times guns like this have been fired from turrets like this-and all came out alive. You do not enter railway trains timidly be cause a dozen people were killed on one a year before five thousand miles away. Yet, when you enter the turret of a 12-inch gun-

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They lock you up. There is no escape. You stand there nervously by the trunnion and somehow it is not like a factory or a railway coach or a street car or any other modernly approved limb-mangling device. These things were built to kill and presently these fellows are going to touch an electric spark which will loose enough anxious and determined gas to drive an 850pound shell 10 miles and put it completely through a steel plate as thick as the one that is supposed to protect you.

Yet, there you are, the Thing before you, and you can reach out and pat it on the shiny, cold haunch. If it wobbles or a spring breaks or a trunnion has mistakenly got itself rusted or the rifle barrel refuses to accommodate the shell, you will be fit brother for a detected cockroach. If there is a flare-back you have the slightest possible chance of escape; hold your cap over your face, don't breathe, hurl yourself under the barrel and fall into the handling-room. You may break a few bones, but if the burning gas gets to no more than 36 per cent of your skin you will live; that is how the single midshipman who escaped from the Georgia saved himself. Yet no one can tell how that gas gets in its work: Sometimes it burns away the flesh and never touches the clothing; again, it singes off all the hair and never touches the flesh; again, it surns the clothing off clean and leaves you naked, but thie.

So! They have locked you up in this steel cage. The others have some reason here. With them it is work, duty, contest. If killed they die nobly, get brass ablets in the wall with their names inscribed, pensions go to their families, the newspapers call them wroes if you die they will cut on your obscure tomb:



The whistle! Time begins. The umpire snaps his stop-watch and grasps firmly in his hand the little red book which defines to the farthest nicety the rules that govern this expensive foolery.

In the following three minutes this crew will try to put five shots through that flimsy canvas target a mile across the quiet water. And the mill-pond is worthy of its name-the bay of the Magdalene -a haven of refuge. The ship glides along like steel through flesh.

"Silence!" The gun-captain, one of the loaders, speaks! What a word it is-"silence!" It precedes and closes every vital action in the navy. In it lies such potency of command, such suggestions of obedience, as is needed in the anteroom of death. Once a recruit saw fit to chaff his mate after that command "Silence!" had been given. The gun-captain stepped to him, without anger, and struck him a heavy blow across the face, with a gnarled, wet hand; the recruit carried the welt for a week; by no one was a word said.

Now, until you hear again that command "Silence!" you will hear only two words: "Commence firing!"

Rumbling from below. With a grating crash the automatic shutter drops in the ammunition-hoist and the shell-car climbs its grinding, steady way to the top. Sud denly you realize that the machine is working of its own accord. You saw no movement on the part of anyone to set it going. Except for that umpire, who, like the man that the fool-killer will doubtless some time get, has really no business there, the turret contains but one officer, a midshipman, and he is with the other gun; all here are enlisted men. The officers are aloft spot ting the shells as they strike, or below setting the ranges, with intricate instruments and delicate adjustments. About the gun itself the men and the machinery move automatically, drilled to a precision. Their last instructions were "to take it easy;" consequently they work like buttons in a shirt.

The plugman pulls open the breech; the hoistman locks the car; the loader completes the passage from car to open breech with a ring of pounded brass; the boy tripper jerks down his lever, and the huge shell, nearly balf a ton in weight, drops to its all but final resting-The rammer holds down on his long release, as a cable gripman throws back his lever, and the smooth brass head forces the shell up till its soft copper rim "takes" on the rifling of the gun. (When a shell is not properly "placed," in this way-if its collar does not -it will surely be a miss. And if the powder-bags 'take' are placed wrong end to there is grave danger of a hang-fire, and a hang-fire is worse than a miss-firealmost as bad as a flareback-and a flareback, as everyone knows, is what, probably dld up the Georgia's turret. One of these shells is about the size of a three-

a month added to his pay for a year. For we have penetrated to the very viscera of war's nature. Here is the man behind the gun. He does the trick. His eye searches the telescopic sight, his left hand turns the wheel that raises and depresses the muzzle of his gun.

EFFECT OF A TWELVE -INCH SHELL UPON THE ARMOR-PL SHELL OFA RUSSIAN CRUISER

time he knows not-has passed, and still that flimsy canvas throws forth its sinister challenge to be hit. But the crossing black lines of his telescope must place bull's eve before he presses the trigger. They must! THEY MUST!

He pulls-as easily as a child cracks a toy revolv-Look! the gun is discharged. Yes: it went off just now. I swear it did. Sure enough! The great breech sinks through the floor, the sleek, shiny haunch slips beneath your grasp, welches away there in the glazed light of the lethal chamber, drops till its crest is as low as its belly lay, then recovers, poised, slips to its first position, lies patiently, modestly, for the next charge, as graceful a spring as a tigress ever made on moonlit road, feline with stealthy swiftness, decisive as oiled piston strokes!

And your hand has been 12 inches from the launching of that thunderbolt! Oh, well, this is easy. Who need be afraid here? This is a place for a grand stand; here may gather all lovers of royal sport. Great sport indeed it is, for now we can watch the precision and swiftness of that silent crew working against time.

The plugman unlocks the breech and pulls it open. The loader leaps across the chasm, flips up the tiny guard that breaks the electric connection, and so extracts the used primer. Automatically the air-blast works, and you hear the swift escape, as of steam, as it cleans out the rifle, blowing away gas and stray powder grains. The egg smell of the nitro comes, and the sweetness of the ether.

Then the grind from the holst, the shutter opens, and up springs again the car. Looking down, you see there the menace that lies in all our ships-the direct location of the gun-breech over the powder magazines. A burnt grain falling down there, with an inefficient shutter the only protection, is a constant danger. Over the building

the umpire. "You've broken a powder-bag."

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Indignant, protesting, the three men quickly pick up the scattered grains, each as big as a man's middle They look carefully all about, then rush back quickly to their stations, eager to continue. They look to the umpire with the expectancy of dogs asking for crumbs Every second is eating into their record. This rotten powder-bag will cost them a penalty. They may not qualify; they may fall below the second rate. Horrors! The ship may even descend from trophy class.

JUST OUT OF THE TURRET AFTER PRACTIC

The umpire is inexorable. "No!" says he. "That's all this run. Climb down there and go into the corners of that shutter; brush out every crack. I take no chance.

Grumbling, the men go about the prevention that the umpire thinks is worthy any ton of post-mortems and boards of inquiry. But the men, with the Anglo-Saxon light of contest in their eyes, remember only the ordnance officer's dictum-better 40 men killed than to lose the trophy.

"He wants to keep our score down," they mutter. "He's from the ----, and we're their only rivals." The gun captain goes out to protest to the turret officer. The well-trained crew resolves itself, with expert suddenness, into a mob of balked Americans clamoring for fair play. An umpire's job is no more popular on a battleship than it is on a baseball diamond.

At last they count the powder-grains-37. "That bag was half in," growls the loader. "I could have rammed 'er home an' no one'd ever known if that ---- hadn't been here. Now we get 1.46 per minute, an' we might 'a' had 2.10. Rata!"