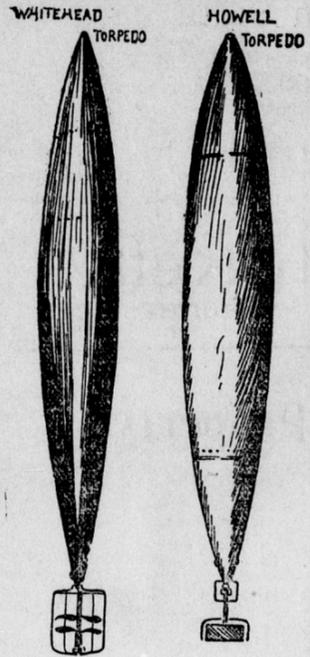


BLOWN UP BY MINE OR TORPEDO.

Marine Tragedies That Recall the Maine Disaster.

No navy is free from sad stories of explosions in its powder and ammunition magazines, and since the beginning of our Civil War the number of vessels destroyed by torpedoes in some form, or by submarine mines, makes a grewsome list. Is it generally known, for example, that in the Civil War seven monitors and eleven wooden vessels of war were totally destroyed by submarine mines? Had



the Southerners possessed the same knowledge at the beginning of the war, says the New York Herald, the struggle would have been, at least, much prolonged, and the disaster to life and tonnage been greatly increased.

During our early struggles several vessels were blown up, notably the Randolph, of immortal memory, but the most memorable case, and surely one of the most pathetic, was the destruction of the Intrepid, commanded by the gallant Somers. She was fitted out as a floating mine, and on the night of September 4, 1804, started from off shore under sail for the inner harbor of Tripoli. Anxious eyes watched her from the blockading fleet, and at 10 o'clock a thunderous report was heard, a column of flame was seen vibrating in the skies, and then the roar of hundreds of guns mounted ashore. No one came back to tell the story, but it is believed that Somers kept his word not to be taken alive by the enemy, and blew up the ship to escape capture.

It was learned that the Intrepid had grounded on the north ledge of the harbor, and that she had been attacked by three gunboats. It was surmised, but never known, that, to prevent the

killed and about thirty were wounded. Tradition has woven many a romantic, many an impossible story about this disaster. One yarn told creepingly how a gunner's mate had been punished as he thought unjustly, and in revenge destroyed the ship. In so doing he lost his own life, but failed in killing the object of his hatred, an officer who had left the ship quietly a short time before the commission of the crime.

The real story seems to be that a fuddled gunner's mate by some error made his way into the magazine with an exposed lighted candle, stumbled into the powder barrel of the period and thus blew the ship skyward.

In the English service there have been a number of notable cases of explosion, but mainly in action. One well known in time of peace was the destruction of the frigate Amphion, Captain Israel Pellew commanding, off Plymouth, England. Here, too, a gunner's mate appears as the god in the machine—for apocryphal or not, it is believed to this day that the seaman in question went with a lighted lamp into the magazine to steal powder, which then had a ready market. Several hundred people were destroyed, among them prominent officials and citizens of the town who were on board.

Among other crimes laid so unjustly to Irish sympathizers by the English press and people was the destruction of the British gunboat Dotterel in the Straits of Magellan. She arrived off Punta Arenas about 9 a. m. on April 26, 1881. The captain went ashore soon after to pay his official call, and about ten a. m. two terrible explosions were heard, and an immense cloud of smoke was seen hovering over the ship in the perfect calm of the morning. Projectiles of all kinds, masses of human beings, of ship equipment and of general wreckage were discovered flying through the air, and the water for a quarter of a mile around the ship was littered with debris.

Boats put off from the shore, and out of the whole ship's company of over 150 souls, only eight were saved. Fenian plots were held to be the cause of the disaster, and South America and Australia were the scenes of police inquiry for months. It is now believed that the explosion was due to the spontaneous ignition of a paint then used in the British navy. This, under deterioration or when exposed to heat, was found to give off a highly inflammable gas, and as the first explosion occurred in the neighborhood of the paint locker, the plausible theory is now accepted. During the last twenty years two other cases have occurred—one, when in 1880 a Spanish gunboat was blown up in the harbor of Santiago de Cuba, and the other in 1893, when a most damaging and distressing explosion occurred on board of the German armored ship Baden, then at anchor off Kiel.

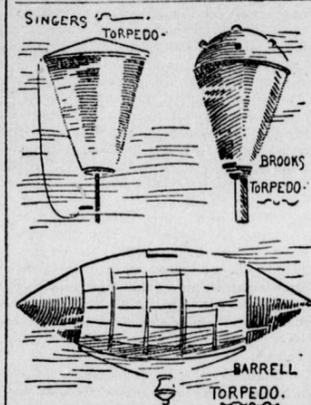
Of the war inventions employed to destroy ships by submarine or aerial projectiles or by mines the number is legion. We were among the earliest to employ these, and our contribu-

perimenters with torpedoes, though Robert Fulton was the first to call a magazine of powder intended for use under water by this name. This great inventor made many experiments, and the partisans and opponents of the new system filled the journals of that day with acrimonious discussions. The failure of torpedoes in the War of 1812 and the general feeling against this mode of warfare as in-



human and barbarous caused, however, its practical abandonment for many years.

Submarine boats had been generally employed in all experiments up to the beginning of the Civil War, and it was really not until 1863 that movable or fixed isolated torpedoes were brought into general use. The Confederate torpedoes were usually made of copper and filled with powder, varying in weights, according to circumstances of employment, from fifty to one hundred and fifty pounds. These were carried on spars attached to ships or boats, were anchored on the bottom, or were sent drifting singly or in pairs, connected by long lines, down tide streams. The fuses fitted were generally of the percussion type, and fulminate of mercury entered largely into their composition.



The Housatonic was destroyed by a submarine boat, but the Albemarle was blown up by Cushing with a torpedo, carried on the end of a spar. This torpedo was made of a stout cylindrical copper case and fitted with a hollow tube, which carried at its bottom a fulminate cap. A small-sized grape shot, secured with a pin, was held at the top, and by releasing this at the eventual moment Cushing destroyed the Albemarle and his own boat at the same time, and then made one of the most daring and romantic escapes in the annals of naval history.

Many improved systems were employed and much ingenuity was displayed, the most inventive of all experimenters being a Confederate officer, who, previous to the war, had been a well-known dancing master.

For a season towing torpedoes were in great favor. These were handled from the ship, and by certain dextrous shifters of the connecting lines were carried off each quarter at a safe angle, and made to dive at the desired moment. They proved to be dangerous, however, and all effort was thereafter directed to the dirigible, or the automobile torpedo. Generally described the dirigible torpedo is one that contains its own propelling and firing mechanisms, and is piloted from the shore by means of electric cables, which function the machinery.

The automobile torpedo is a weapon that is shot from a tube, generally called a torpedo gun, and takes up its line of progress by machinery contained in its body. There are many forms of these, like the Howell and the Whitehead, for example, and some extraordinary results have been obtained with both. The Whitehead is discharged from the tube by steam or powder, and just as it leaves the muzzle a lock automatically opened releases the compressed air carried in a flask and sets in motion the machinery. Three things must be done by it. It must go through water at a high speed, preserving its linear direction; it must float at a constant depth, and on striking it must explode. The ingenuity and simplicity of the mechanism which effects these three things are really marvellous.

The Howell torpedo is based upon the well-known principle of the gyroscope. Its speed and surety of direction are given by the functioning of an inner wheel, which is relatively very heavy on the periphery, and revolves with such velocity and in such a constant plane that high speed and great straightness of trajectory are secured. There are many other forms, but these two are employed in our service, and the Whitehead is used by nearly all the navies of the world.

The term "submarine mine" is applied to defensive mines or to those which would be used to obstruct the channels of a river or estuary, or the approaches to a fortified or unprotected seaport. Colonel Samuel Colt, the inventor of the American revolver, first demonstrated the practicability of

blowing up vessels by submarine mines fired by electricity. In 1842 he blew up the old gunboat Boxer and in 1843 he destroyed a brig in the Potomac River while the vessel was under way, sailing at the rate of five miles an hour.

Many forms of mines were used here and abroad, and they were successfully employed against us in the Civil War. Every system of coast defense

concerns itself with their distribution and use, and every well-known harbor of the world is at this day so mapped out that the planting of those mines may be done on a plan which promises the greatest utility. Some of these are constant depth mines—that is, such as will float always at a certain depth below the surface, no matter what may be the state of the tide; some are fitted to explode on contact, and most are so arranged that they may be exploded at will by observers stationed at points of refuge, in bomb proof and lookout stations ashore.

VICTORIA'S OLDEST SERVITOR.
Sergeant Sweeney, "Headman of the Tower," Entered Her Service in 1837.

The oldest servant of Queen Victoria is Yeoman Gaoler Stephen Sweeney, of the Tower of London.

He now holds the most picturesque and obsolete office under Her Majesty. He is the Headman of the Tower, the official descendant of the executioners who exercised their calling when that historic building was a State prison. He has a great big axe, which he keeps sharp and bright, but never uses except for show.

Like the Yeoman of the Guard, or Beefeaters, the Yeoman Gaoler wears a costume of the reign of Henry VIII. His axe is just such a one as was used to cut off the heads of Henry's wives and courtiers.

Sergeant Sweeney is a living relic of an institution that has passed away, but which will live forever in history and romance. There is no more picturesque, fascinating and gloomy building in England than the Tower of London. The headman was its dark presiding genius.

Hundreds of great nobles, beautiful women, princesses and princes have entered its gates, there to lay their heads upon the block and suffer death by the axe.

Sweeney is an old soldier and late Troop Sergeant-Major of the Fourteenth King's Light Dragoons. Enlisting in that regiment on February 14, 1837, he was present at the proclamation of the Queen on June 20 of the



same year, and at Her Majesty's coronation on June 28, 1838. In 1841 Sergeant Sweeney left Canterbury for India, where he distinguished himself in many an action. In all he served nearly twenty-six years, and has three war medals with four clasps. It was in 1864 that he took up duty at the Tower of London as one of Her Majesty's yeoman warders, and later on he was appointed yeoman gaoler.

Uncle Sam's Pigeon Exhibit.
There was a display of Uncle Sam's homing pigeons at the poultry and pigeon show in Madison Square Garden, February 1 to 5. Mr. Howard Carter, who has charge of the cote at the Brooklyn Navy Yard, represented the United States Navy during the show.

Eight of these carrier pigeons have seen active service in carrying patches from the fleet at sea to the home station, and several have made as many as thirty flights from various battle-ships.

The longest distances were from the Texas and the Annapolis, 150 miles, the birds carrying messages to the commandant of the North Atlantic Squadron. The messages will also be exhibited.—New York World.

Children's Column



The Mercury's Plait.
I don't know why I'm slandered so,
If I go high—if I go low—
There's always some one who will say,
"Just see that mercury today!"
And whether toward the top I crawl
Or down toward zero I may fall,
They always fret, and say that I
Am far too low or far too high.
And though I try with all my might
I never seem to strike it right.
Now I admit it seems to me
They show great inconsistency.
But they imply I am to blame,
Of course that makes my anger flame,
And in a fiery fit of pique
I stay at ninety for a week.
Or sometimes in a dull despair,
I give them just a trigid stare,
And as upon their taunts I think
My spirits down to zero sink,
Mine is indeed a hopeless case—
To try to please the human race!
—Carolyn Wells, in Youth's Companion.

Hawthorne's Bear Story.
In "Hawthorne's First Diary," begun at his home in Raymond, Maine, when he was a small boy, he tells a bear story, which is vouched for by his editor. Hawthorne gives it as follows:

Mr. Henry Turner of Otisfield took his axe and went out between Saturday and Moose ponds, to look at some pine trees. A rain had just taken off enough of the snow to lay bare the roots of a part of the trees. Under a large root there seemed to be a cavity, and on examining closely, something was exposed very much like long black hair.

He cut off the root, saw the nose of a bear, and killed him, pulled out the body, saw another, killed that, and dragged out the carcass, when he found that there was a third one in the den, and that he was thoroughly awake, too; but as soon as the head came in sight, it was split open with the axe, so that Mr. Turner alone, with only an axe, killed three bears in less than half an hour, the youngest being a good-sized one, and what the hunters call a yearling.

This is a pretty good bear story, but probably true, and happened only a few weeks ago; for John Patch, who was here with his father, Capt. Len Patch, who lives within two miles of Saturday pond, told me so.

George's Doll.

"O—o!" cried Kittie, running into the barn. "Oh, dear, I am so frightened!"

Jack was making willow whistles, but he looked up.

"What's the matter?" he asked.

"Oh!" said Kittie, again, "I was coming across the cornfield, and there was a horrid man there and he tried to catch me."

"A man?" said Jack.

"Oh, yes. A great horrid, ugly man like a tramp, and all in rags."

"Don't you be frightened, Kittie," said Jack, who was a brave little fellow. "Father and George are over in the east meadow getting the hay, but I'm here, and I'll go and see what he wants."

Kittie begged him not to, for fear the man might hurt him, but Jack said stoutly:

"He might be after the chickens or the new calf, and I must look after things when father is not here. I'll take Towser."

He whistled to Towser, and ran off to the cornfield. Kittie was afraid to stay alone, and so she followed him, but at a safe distance. Baby Dick trotted at her heels. Just as they were getting under the fence they heard a ringing shout from Jack, who was in the middle of the field; and when they came in sight, they found him shaking the arm of the "tramp."

"Oh, Kit, you goose!" he cried. "It's only a scarecrow George made yesterday to keep the birds away from the corn."

"Why," said Baby Dick, "he's nuffin but a drate big dolly."

"Yes, that's what he is," said Jack. "He's George's doll."

George's doll stood in the field all summer, and the children went often to see him.

And so, when things frighten you, if you can only be brave, like little Jack, and go right up and look at them, you will very often find them only scarecrows.

Milly's Rudeness.

Milly had to get her lessons ready for the morrow. She was always supposed by her schoolmistress to spend an hour over this work. As a rule, Milly's mother sat with her to give her a little help from time to time, but that afternoon she was too busy; so she left her little girl, telling her to do her lessons well while she was away.

But Milly found it was very hard to do as her mother told her. It was so hot she felt as if she could not think. Then she thought it was just the sort of a day when it would have been nice to sit in the garden under the trees and read her new story book. Instead of that she had to be at work in the room! It was really almost more than she could stand without growing as cross as a little girl could very well be.

It was true that, once the hour was over and tea finished, she would be able to go into the garden and enjoy herself as much as she pleased. But

that was just the tiresome part. The hour would not pass. She sat with her face to the clock, for she thought then she should be able to see how the time went, and that would help her to work; but she felt very helpless over it all.

She had to find all the capitals of Europe, and mark them upon her map, and learn their names by heart. There was Athens, which would not be found. If the geography book had not stated so decidedly that it was in Greece, Milly would have felt quite sure that it must be in some other country. She supposed, however, that the man who wrote the geography book was right; after coming to which opinion she looked at the clock and sighed. Five minutes past four, and she had to work till five!

She fell to hunting once more for Athens. It seemed to her a very long time that she had been wandering over that corner of Europe known as Greece, when she again glanced at the clock. Seven minutes past four. Only seven minutes past four! And had thought at least ten minutes must have passed.

She began her search for Athens once more. At last she found it, and then she looked at the clock anew. Three minutes more had passed, that was all. Milly stamped her foot angrily. "It is too horrid!" she said aloud, as if speaking to the bronze man who held up the clock. "The time will never go!"

She glanced listlessly at her lesson book. She could not remember the names of those stupid capitals at all. They went out of her head as quickly as she found them on the map. Why did countries want capitals? Only to make another horrid hard lesson for little boys and girls. That was all; she was sure of it.

Milly drummed her fingers on the table for a few moments after settling this point and gazed wearily at the clock. Then she took a resolve. She would be a wise, good girl. She would read the names of the capitals ten times over without stopping, and never look at the clock once until she had done. Depend upon it, when she had finished her task, ever so much time would have passed.

She started. Once—twice—thrice—faster—faster—faster—did she read over the names of those capitals which always managed to escape her. By the time that she was going over them for the tenth time her speed was almost equal to that of an express train.

Then she looked at the clock again. She did so with a delightful feeling of hope. More than hope; she felt sure that the hands must have moved on a long way. She looked and looked again, and then she sat and stared at it with grief and anger.

O bad untrustworthy clock—its hands had barely moved on five minutes!

Barely five minutes! Impossible! It must have stopped. Yes, that was the reason it showed so little progress. There was but little doubt.

Milly crossed the room, and putting her ear close to the clock, she listened hopefully. Alas! Alas! It had been wrongfully accused. It was doing its duty faithfully. Tick—tick—tick—it was going as fast as its works and time would allow it to.

The hour would never pass—never—never—never! Milly sat on the hearth-rug and burst into tears. It was just at that moment that her mother came into the library.

"Why, Milly, child, what is wrong?" she asked, raising her from the floor and kissing her.

"The time won't go," she sobbed, "and I am so tired of doing lessons!"

"Where have you been working?" said her mother. "Oh, I see," she added, as she glanced at the books on the table. "I see," she repeated, then added, "Now I want you to be very rude."

"Very rude!" Milly said with surprise. "Why, you are always very angry when I am rude."

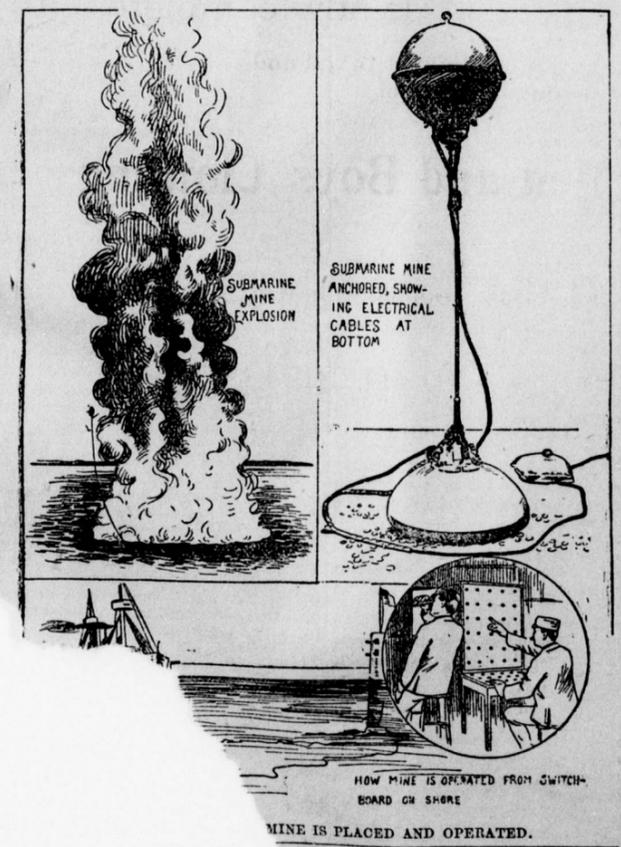
"Yes, but I want you to be so now," her mother said, smiling. "You know I have often told you that it is not polite to turn your back upon any one, but I wish you to do so now. I wish you to turn your back upon this bronze gentleman who holds the clock. I think that you will work much better and the time will go much faster."

So Milly did as her mother wished, and she was quite surprised when tea time came and the hour was over.

"It really was very, very funny, mother," she said. "The time went so slowly at first, and so quickly after! It must have been because when I began I had my face to the clock and afterward I had my back to it."

"That was it," replied her mother. "And if one is feeling idle, and more inclined for play than lessons, it is much better to work with one's back to the clock. It is wonderful how it shortens the time.—Youth's Companion.

Birds Made to Order.
The Japanese are ruthless in their tampering with nature. If they decide that they want a bird or an animal of a certain shape or color they set about manufacturing the article, so to speak, by the exercise of exceedingly clever ingenuity and untiring patience. Here, for example, is how the white sparrows are produced. They select a pair of grayish birds and keep them in a white cage in a white room, where they are attended by a person dressed in white. The mental effect on a series of generations of birds results in completely white birds.—Rural World.



Contributions to the history of torpedo warfare have been very many and very notable. The famous "Battle of the Kegs" has been sung in mock heroic verse, and the Philadelphians of 1777 had many a merry jest over the valorous attack made by the British grenadiers upon these innocuous barrels.