

# MINELAYING SHIPS FOR OUR NAVY SOMETHING NEW FOR US

THE Navy Department does not intend to let some of our older but fairly speedy cruisers be placed upon the shelf, so to speak, but is earnestly intent upon making them up-to-date craft in other directions. The U. S. S. Baltimore and the U. S. S. San Francisco are to be converted into mine-laying vessels, and in this conversion they will bear all the hallmarks of one of the most striking lessons taught by the Russo-Japanese war.

Japan cannot claim precedence in this direction; neither can Russia, because Germany set the pace some years ago. It required, however, the operations of actual warfare to prove how anticipatory the Germans were in their work in the field of submarine mining.

The purpose of the mine-laying ship is that of sowing speedily a field or line of offensive mines known in naval parlance as blockading mines or naval defense mines. These mines carry from 75 to 100 pounds of gun-cotton, which is sufficient to destroy the water-bodies of the heaviest battleships when exploded in actual contact with those vessels. When once planted, these mines are a menace alike to friend and to foe, as they amply proved during the war between Russia and Japan.

### Purpose Is Two Fold.

The layman may reasonably ask: Why are such dangerous instruments of destruction used if they are a peril to any vessel after once being planted? The answer to this is, that unless they break away from their moorings, their location is known to the ship or force sowing them, while their presence can only be suspected, but not known by the foe. Their purpose is twofold: To form a defense to the approach of a position temporarily taken by a mobile force—such, for instance, as a halting place in one of our northern harbors that an enemy might take as a temporary base, and, again, the momentary retreat to such a place on the part of one of our own squadrons when menaced by a superior naval force. This defense mine in the latter case takes the part that would otherwise be assumed by the sea coast batteries, if any were there.

### What the Russians Did.

The Russians used mines of this sort to supplement their military defenses in a vain endeavor to hold the Japanese either at arm's length or to force them to take position in attacking which would enable the Russian gunners ashore and afloat to bring their weapons to bear with heaviest effect upon the assaulting Japanese. The Japanese, on the other hand, used their mines not for defense, but for purposes of offense. They did this by entangling the Russians out of harbor over mine fields just laid and by swimming in behind the Russians and planting lines of these mines between their foe and the approaches of the harbors to which their enemies must subsequently repair. In this work the Japanese showed a keen strategic sense, and their work was a practical application of certain peace-time experiments conducted by the Italians in the course of some of their naval maneuvers a year or two before.

The Russians started out in that war with a vessel especially built and equipped for mine-laying work. That ship was the Yenisei, a craft of 250 tons, which was capable of planting about 500 mines in fairly rapid succession. The Yenisei carried an armament of powerful rapid-fire guns with which to resist torpedo-boat attack while engaged in her work. Commander Sueter, of the British navy, has this to say of that vessel:

"After the successful attack made by the Japanese torpedo-boats on the night of February 7-8, 1904, the Russians realized the tremendous blow that had been struck at their naval supremacy in the East. The authorities were thus face to face with a very grave state of affairs, and at once commenced to lay mines across the entrance of Tattenwan Bay to protect Dalny from any attack; all these belonged to the electro-miner type, and were laid by the armed mine-layer, Yenisei. While laying the 201st mine, one previously dropped came to the surface, and in clearing it the mine-layer fouled the last-laid with her bows, a severe explosion occurred, and the Yenisei sank rapidly, taking with her most of the crew. Only a few survivors were picked up."

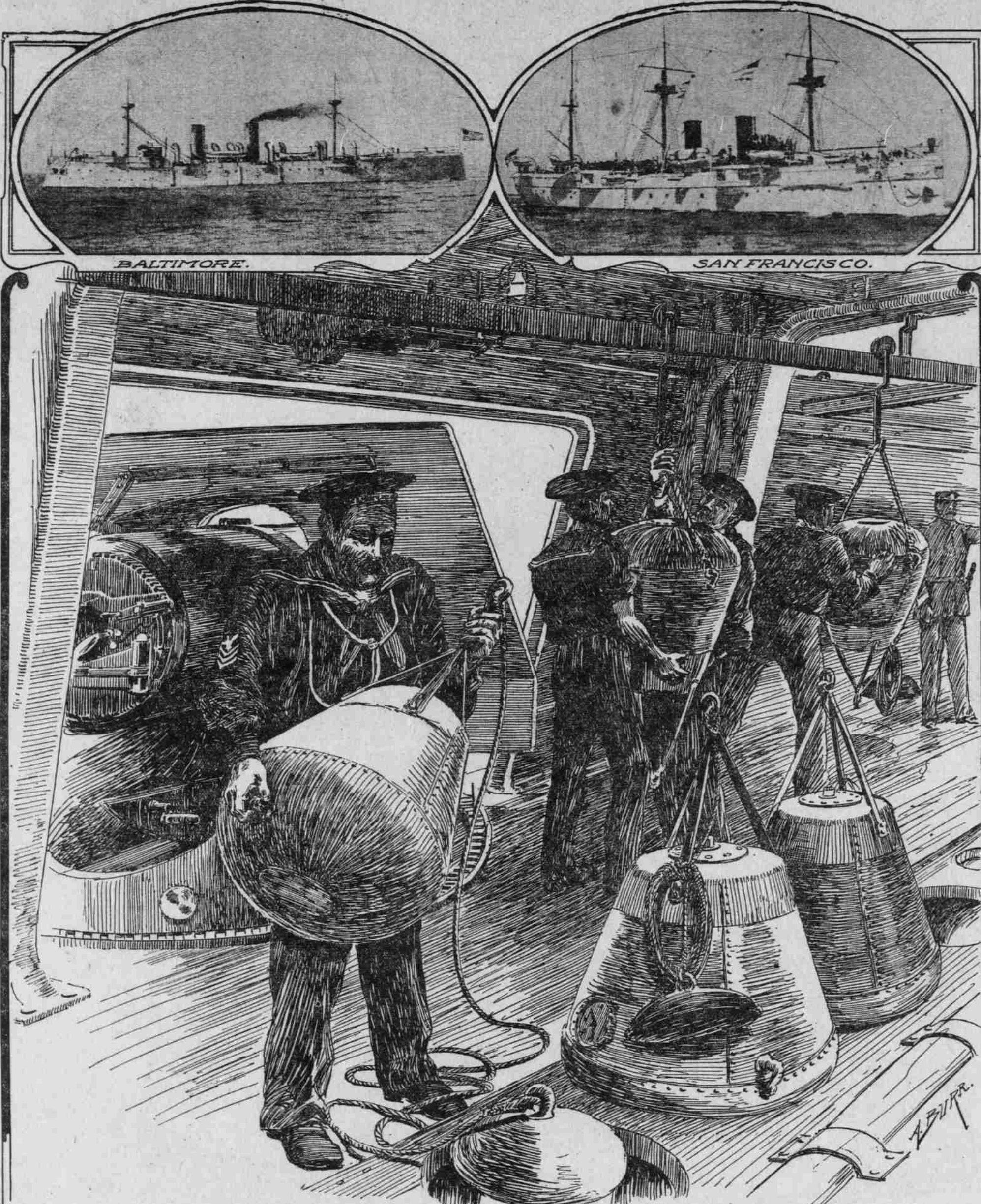
### Operations of Japanese.

The Japanese, on the other hand, resorting to an expedient, made use of certain of their small craft to plant their offensive mines. This is what Commander Sueter tells us of that operation:

"On the night of August 15-16, 1904, the Japanese sent a number of their destroyers, torpedo-boats, picquet-boats and mine-layers to operate off Port Arthur. A pretended torpedo attack was made to screen this mine-laying, and during this time mines were dragged from the destroyers and the mine-layers right across the channel usually used by the Russians."

"The next day a 'break-decoy' squadron was sent by Admiral Togo to draw the Russian fleet out of Port Arthur, the main Japanese fleet being kept out of sight, but in wireless telegraph touch with the detached ships. During the morning the Russian squadron proceeded out of harbor and gave chase to the decoy squadron, which then made off, but kept in touch by wireless telegraph with the main Japanese fleet. After some time the latter appeared in sight. The Russians were not apparently ready to try conclusions with their enemy, and therefore the Admiral signaled to his fleet to return to Port Arthur. Suddenly under the starboard side of the flagship a column of water was thrown up, followed by several dull reports. It is believed the Japanese mines were coupled together—and when the bow of the Petropavlovsk (11,000 tons) touched the connecting cable she carried it with her and swayed the two lines with considerable force against her side, probably one to port and one to starboard. The terrific shock may also have detonated the explosives in one of her magazines, for the ship disappeared bow first, with a heavy list to starboard, within two minutes of the explosion, only some 40 men out of a crew of 700 were saved."

Admiral Makaroff, the most brilliant scientist of the Russian navy, went down with that ship. The Pobleda was also damaged by a mine on the same occasion, but she was able to stagger into harbor and was ultimately repaired. The Russian battleship Sevastopol was twice damaged by Japanese mines, and the cruiser (Grombez) was severely damaged by another Japanese mine when going south



from Vladivostok to meet Admiral Rozhdestvensky's squadron. On the other hand, the Japanese lost the battleship Hatsuse, with most of her crew, and had the battleship Yashima so badly damaged that she was not again able to take part in the war. In addition to this the Japanese lost three cruisers, several gunboats and a number of smaller craft by their fatal stumblings over Russian mines.

The Japanese offensive mine was rendered innocuous during a certain period after planting—half an hour—by a clock-work contrivance which gradually made one of the contacts in the explosive electric circuit. All that was then necessary was that the mine should be tilted by a passing body, when a pendulum made the second contact and thus completed the circuit which detonated its mass of shrimose powder. The Russian mine was slightly different in its safety feature, and some of them were arranged with a soluble insulator, which, melting after being in the water a short while, set the mine free to explode by any blow that would tilt it over far enough to make the necessary contacts for that purpose.

of gain, and upon them should rest the risk in that venture. To have assented to the abolition of submarine mines, Germany would have found herself with two new special service vessels on her hands, built at considerable cost, for which she could have no possible use. These vessels are the Albatross and the Nautilus, ships of 300 tons displacement and capable of making 20 knots an hour. Each of these boats represents a cost of \$25,000. They carry a number of rapid-fire guns of about four-inch caliber. In addition to these there is the cruiser Pelikan, of 250 tons, having a speed of 15 knots, and carrying an effective armament of anti-torpedo rapid-fire guns. The newer vessels of this fleet are fitted with an ice-boat, so that they may be able to carry out the work of laying mines in winter when ice may be about. These ships are only part of a very considerable organization, which includes a number of smaller vessels, and this section of the German navy represents a personnel of something like 1300 officers and enlisted men who have been systematically and carefully drilled in this sort of work.

**How Mines Are Laid.**  
The German mine-laying ships, like the British mine-layer Iphigenia, are so arranged that they can handle ready by planting between 400 and 500 mines. These weapons or instruments of destruction are stowed along the main deck adjacent to a specially designed trolley system by which they can be run aft and dropped overboard through large ports made for the purpose, so that the mine is swung completely clear of the craft before it is dropped into the water. These mines are generally planted about a hundred feet apart, and in parallel lines, so that a large vessel passing safely between two mines in the first line would surely hit a mine further on in the second line. The

mines of the most modern type are arranged with self-anchoring mechanisms, which hold them at a predetermined depth below the surface. Otherwise, they might show at low tide and warn an enemy of their presence. To destroy them by gunfire would be a very easy task, and the foe could then be sure of a safe line for approach and attack.

The Baltimore and San Francisco are to be made thoroughly up to date, and in doing this the Navy Department intends to profit by all that has been done abroad in this direction. These ships are 26-knot vessels, and are of 4600 tons displacement. Being thus considerably larger than any mine-laying vessels so far constructed they should prove that much more efficient for this service. They will probably retain a battery of five-inch rapid-fire guns, the caliber which is now recognized as essential for repelling the attack of torpedo-boats supplied with the modern long-range torpedo.

The Chief of Artillery, Brigadier-General Arthur Murray, has called the attention of the War Department to the urgent need of making sufficient and immediate provision for the proper mining of our principal harbors and the waters leading to some of our seaports lying some distance back from the coast. He has pointed out some important places on both the Atlantic and Pacific Coasts where this work should be done without further delay; and he has also called attention to our unpreparedness in this direction in some of our insular possessions. Further, General Murray says: "When the value that this completed mine defense would have, not only for its actual worth as a destructive element of harbor defense, but also for its moral effect in closing our harbors against sudden attack even by the most enterprising enemy, and the compara-

tively small cost at which this protection can be obtained is considered, it will be apparent that this completion should be accomplished at the earliest possible moment."

fitting out of the Baltimore and the San Francisco means to such temporary defenses as the Navy may see fit to supply during the various strategic moves of coast defense lying essentially within the domain of that arm of the Nation's fighting force.

## Good Anecdotes of Thomas Edison

Novel Way of Getting Rid of Annoying Visitor.

New York Tribune.  
THOMAS A. EDISON is an excellent source of anecdotes. This is demonstrated in a book about him by Francis Arthur Jones, which Thomas Y. Crowell & Company are shortly to publish.

Edison is somewhat deaf in his right ear. Through constantly placing his hand behind it the lobe has been pressed slightly forward. This partial deafness has enabled him to pursue his work undisturbed while surrounded by all the noise of a busy shop. Naturally it would look well in an advertisement, from the advertiser's point of view, to be able to announce that Edison used the article advertised. Accordingly he has had many visits from persons with "a sure cure for deafness" to sell. One visited his laboratory at Orange recently in order to explain the merits of a method which, he declared, would bring about a speedy removal of the obstacle to hearing.

"No," said Edison, "I think I will not try it."

"Why not? I wish you would tell me why you will not."

Edison smiled. "Suppose you did cure my deafness," he said. "Think of the lot of stuff I'd have to listen to that I don't

want to hear! To be a little deaf has its advantages; and, on the whole, I prefer to let well enough alone."

His deafness has been described as being more in the nature of a psychological phenomenon than a physical disability. A story is told illustrative of his ability to hear when it is least expected. Several visitors had called at the laboratory, and although Edison, as usual, was extremely busy, he made them welcome. He did not express any irritability even when foolish questions were shouted at him in unnecessarily high-pitched tones.

**When He Could Hear.**  
At last the humorist of the party remarked to a companion in an ordinary tone of voice:

"I guess he would hear if we asked him to take a drink."

The inventor, who is temperate in the use of liquors, turned about, looked the young man squarely in the eye and smilingly said:

"Yes, perhaps, I should; but no, thank you, not today."

Edison has strong opinions regarding diet. He does not believe that half the ill that flesh is heir to are due to incorrect and excessive eating. He himself is very abstemious and often does not consume a pound of food in the course of the day. Yet he is no fastidious in what he shall eat,

taking anything he fancies, but in very small quantities. He is fond of telling a story as an illustration of how great a slave to meal hours a man may become.

"You know, of course," he says, when telling it, "all about the Ohio man who went to New York for the first time, and having taken a room at a good hotel, unpacked his grip and went to the desk to inquire about the meals.

"What is the eating hours in this yere hotel," he asked the clerk.

"Breakfast," the clerk answered, "7 to 11; lunch, 11 to 2; dinner, 2 to 5; supper, 5 to 8; 12."

"Jerusalem!" exclaimed the astonished farmer, "when am I gona' get time to see the town?"

Visitors to the laboratory are sometimes so numerous that Mr. Edison will not grant an interview unless they are well known to him. Some of these visitors with great pomposity assert that they have known "Tom Edison" since they were boys together, and act as if much affronted when the gateman informs them that Mr. Edison is so busy that it will be impossible to see him on that day.

On one occasion a bona fide friend who had known him from childhood called at the laboratory with a companion, and was greatly offended when told that Mr. Edison was very busy and could not receive visitors.

"What!" said the caller, indignantly, "do you mean to say that Thomas Edison won't see me? Why, I have known him intimately all my life."

### Knew Him Better.

"Oh, no, I don't say he won't see you," replied the man, "but Mrs. Edison waited here two hours this morning and had to go away without seeing him, and I don't suppose you know him any better than she does."

Occasionally when visitors are admitted they stay so long that they become nuisances. Edison once disposed of a party of unwelcome callers in an unusual way. In his experiments with explosives he has produced some so sensitive that a drop placed on a table would explode if any one touched it.

"You see," he said, by way of explanation, "the thing is in a state of very delicate equilibrium, and is so sensitive that depending upon surrounding conditions as to which it will de-remain a liquid or turn into gas. When this balance is about equal it takes a very little incline, it toward a gaseous form, so that even the sound of the voice will produce the effect. And so would a heavy weight dropped on the floor."

While conducting his experiments in explosives he was visited one morning by a company of clergymen. The inventor treated them, as he treats every one, courteously, but as the day wore on and there was no sign of their going, he began to study how to get rid of them without offending them. He casually remarked that he was experimenting with very delicate explosives, and would be sorry if any of them were injured.

This had only the effect of increasing their interest. They got in the way and distracted him by foolish questions. He finally became nervous—and almost irritable. A method of eliminating them from the scene finally occurred to him. "Taking some of the material with which he had been experimenting he put a drop or two where there was no danger of blowing a minister through the window. The clergymen watched his action with added interest, apparently feeling no uneasiness, and crowded around him. The inventor seated himself at his bench and again took up his experiments. Suddenly he jumped up, shouting: "I have it!" at the same moment knocking a board from the table as if by accident. It fell to the floor with a crash. What followed was even more disastrous than Edison had intended.

### Even Edison Was Startled.

No windows were broken, but several glass bottles were smashed, a piece of electrical apparatus was disabled, a table overturned and the ministers were frightened. They put their hands to their heads, fearful of something worse to follow.

"What happened?" one of them exclaimed.

"Such explosions are constantly happening," replied Edison, calmly. "I'm glad to say that they haven't killed any one since the fall. You can never tell when one will happen, but I hope you will not be treated to another today."

The clergymen declared that it was all intensely interesting, but they would better not remain longer. Grabbing their hats, they hastily bade the inventor goodbye and did what Edison had long been wishing them to do.

The faces of the remembering faces is especially well developed in Mr. Edison. An incident that exhibits this and amused Mr. Edison greatly happened recently.

A certain great American machine factory, devoted to the manufacture of electrical appliances, attracts many visitors from all quarters of the globe. One engineer at the factory, who may be called "Steve," is frequently detailed to serve as guide, because of his fund of information and his lucid explanations. Recently he was assigned to conduct through the plant a guest from the West—a light-haired little man. The visitor seemed duly impressed with all he saw but made no comment. He was apparently drinking tea and silently criticizing every word which young "Steve" uttered. That usually confident person grew nervous and suspicious.

"This fellow," he thought, "must be some smart electrician, and he is just taking all my statements with a huge grain of salt."

At last when they had returned to the office and "Steve" was feeling lumpy and tired, the little man held out his hand and said:

"I am exceedingly obliged to you. I don't know much about the electrical trade. I am a barber. If you ever come to Chicago, look me up."

**Sonnets on Home.**  
Chicago News.

Ah, home, sweet home! My home is dear to me;  
It is my kingdom; there I am King.  
There all my troubles I may  
Fling, and the cares of the world may  
Ring.  
And from all distraction I am free.  
There none with my opinions disagree.  
Right from the moment I my doorknob  
Ring.

I can say what I choose—yes, anything—  
What I please; for I am at home.  
There, I can be myself without disguise.  
Without restraint; the bonds that held me  
Are loosed. For me home hasn't any ties;  
I'm quite at home wherever I may be.  
It wouldn't be home were it otherwise.  
At home I do not have to be polite.

II.

Away from home I am compelled to smile  
Though in my heart is bitterness and gall,  
Be nice to people I don't like at all,  
And speak quite softly, though I rage the  
whole day.

At home I freely manifest my bile—  
If things don't suit me you hear when I  
talk.

Yes, there they all come running when I  
call.  
And meekly listen if I should reprove  
I'm boss supreme. Who should dispute my  
way?

Or talk back when upon some fault I  
pick.  
When I demand, who dares to say no nay?  
I'd rather a rebuke than mighty talk.  
Ah, home, sweet home! I love it, I must say.  
It's just the one place where a man can  
lick.