

TO REPEL INVADERS.

MAMMOTH AERIAL TORPEDO THROWERS.

They Are to be Placed at Sandy Hook to Protect New York from Hostile Foreign Ships.

Within thirty days, says the New York Herald, there will be placed at Sandy Hook a battery of guns capable of throwing fifteen tons of dynamite an hour at any fleet of hostile foreign ships that might try to force their way up to New York.

This battery was provided for by the last Congress. Work on the foundations for the tubes was begun several weeks ago, and everything is now in readiness to receive these powerful weapons of war, each of which can drop from one hundred to five hundred pounds of dynamite into the water between Sandy Hook and Coney Island, to a distance of from one to two miles.

WHERE THEY WILL BE MOUNTED.

The three tubes will be mounted at Sandy Hook temporarily, near the end of the sand strip from which the place takes its name. They will be placed side by side on the level of the beach, the 8-inch tube being on the right hand side. All three can be trained entirely around the horizon. It takes two minutes to make a full circuit.

The pressure by which the projectile is discharged is ordinarily 1,000 pounds to the square inch. It is supplied from a substantial shed about seventy feet in the rear of the guns where the air compressors are placed.

The tubes are smooth bore, made of cast iron in small sections provided with flanges, which are bolted together, forming a piece having a length of fifty feet and an internal diameter of fifteen inches. The points are provided with a new and very efficient packing which automatically tightens with the increase of pressure.

A POWERFUL PIECE.

The total weight of the 15-inch tube is 40 tons. The total weight of the full calibre projectile is 1,000 pounds, the explosive charge alone weighing 500 pounds. The range of the piece at 35 degrees elevation with a large projectile is 2,400 yards; with a 10-inch subcalibre projectile weighing 500 pounds it is 4,000 yards; with an 8-inch subcalibre projectile weighing 340 pounds the range is 5,000 yards, and with a 6-inch subcalibre projectile weighing 250 pounds the range is 6,000 yards.

Up to the present time heavy wrought iron tubing has been used in the construction of the storing and firing reservoirs, having a diameter of six feet will be used for two of the tubes to be placed at Sandy Hook.

So far no plans have been definitely made for the protection of the tubes from an enemy's fire. Placed on a level sand spit, as they will be at first, nothing could prevent their being knocked to pieces by a vessel far out of their range.

EXCEPTIONAL ACCURACY OF FIRE.

At all ranges the tubes can place seventy-five per cent. of their projectiles within a rectangle 30 feet wide by 360 feet long. A duplicate of one of the tubes was recently purchased and tested by the English government for coast defence. The most skilled rifle practice was thrown in the shade by its performance.

At a range of 3,948 yards or 2 1/4 miles the error in direction was 3 1/2 yards; at 3,644 yards it was 1 1/2 yards. The wind at the time was blowing at the rate of eight feet per second and the deviation from the range was from 17.2 to 22.6 yards.

It is believed that this aerial torpedo thrower will largely supersede the stationary torpedoes heretofore introduced for coast defence.

According to the contract with the government Mr. Schuyler says that be-

sides the tubes for Sandy Hook his company is to construct a battery of three 15-inch pneumatic tubes for San Francisco and one of them will be shipped to San Francisco this week.

For the test for the Sandy Hook tubes old hulks will be selected to be destroyed. The trial will be severe and a large number of projectiles, both loaded and unloaded, will be fired at all ranges and degrees of elevation.

At the bombardment of Alexandria the British fleet deliberately anchored at a distance of 1,600 yards—less than one mile—from the forts and opened fire. The effect of the fleet's high powered guns, even those of the heaviest calibre, was not as disastrous as was expected.

"Had the fleet included a dynamite torpedo thrower that vessel could have placed herself behind any one of the huge armorclads of the attacking squadron and from that position could have easily landed within the shore forts at an angle of fall of about twenty-five degrees projectiles filled with the enormous charge of five hundred pounds of dynamite, the effect of which can be imagined. Conversely, had the shore works possessed one or more dynamite throwers the attacking fleet probably would not have calmly delivered its fire from a 1,600 yard range.

THE BODY AND ITS HEALTH.

LIME JUICE.—Lime juice is very similar to lemon juice in its nature, says a medical writer, and is sold in the market by the bottle. It is generally acknowledged to be an antidote for scurvy, and by English law it is rendered compulsory for every ship to take on board lime or lemon juice. For the navy the admiralty use lime juice only. The constant use of lime or lemon juice of good quality will greatly discourage a variety of complaints, such as dyspepsia, bilious disorders, etc., which the present luxurious state of living on liberal flesh, alcoholic diet, without its corrective aid, greatly fosters.

Don't Worry.—Every movement of muscle, whether it accomplishes anything or not, whether voluntary or involuntary, costs an outlay of bodily strength. Every thought also involves an expenditure of strength. Therefore, all thought involving fret, worry, fear, or borrowed trouble, is so much strength unprofitably expended. You may always tell a man or woman whose existence has been a lifelong fret by their careworn, emaciated faces.

A TREATMENT FOR HEADACHE.—This treatment, recommended by M. Dourdouki, of Moscow, has the merit of being both original and simple. While examining one day a patient complaining of atrocious headache he used percussion of the cranium, just as is done for the chest to ascertain whether there was any apparent material lesion.

THE FOOD VALUE OF AN EGG.—Six large eggs will weigh about a pound. As a flesh-producer one pound of eggs is equal to one pound of beef. About one-third of the weight of an egg is solid nutriment, which is more than can be said of meat.

THE NATIVES OF THE SAN BLAS COAST, part of the western coast of South America, have many peculiar customs. The Indian boy, after his marriage, becomes the slave of his father-in-law, and must submit in all things to his will until emancipated by his own daughter's marriage, when he sets up his own home and becomes therefore master of his son-in-law.

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WOLF, Chief of the Palouse Indians, is rich and happy. According to a Walla Walla paper, he owns 160 acres of land on the Snake River, all under cultivation, with a good house and barn, and he prefers to live in his tepee. He raises horses principally, and now has over 2,000. He is forty-nine years of age, and dresses in Indian costume, with moccasins, blanket, calico blouse shirt, trousers, and a hat decorated with turkey feathers, except on great occasions, when his favorite headgear is a hat trimmed all around with coyote tails.

THE IMMENSE sycamore tree on the banks of the Sandusky River, just at the edge of the village of Upper Sandusky, is dying, and the fact is most regrettable, for the tree is the largest of its species east of the Rockies. It is forty-one feet in girth at the base of the trunk, and for years it has been one of the sights of Northern Ohio.

THE HOUSE OF LUCRETIA MOTT. In Nantucket, Mass., is still to be seen the house in which the justly-famed Quakeress, Lucretia Mott, was born, and for very many years lived. It is in "town," as the huddle of houses on the island's harbor side is called, and stands at the meeting of two narrow stone highways known as School and Fair Streets.

SOMEWHAT STRANGE.

ACCIDENTS AND INCIDENTS OF EVERYDAY LIFE.

Queer Facts and Thrilling Adventures Which Show That Truth is Stranger Than Fiction.

BON VOTUS hates an alligator. At least this statement is made by the Lumpkin (Ga.) Independent. The uncanny appearance of a big ugly saurian is sufficiently forbidding to most people to make them despise him; but Bob has a better reason than that: they destroy his fish and pigs and would destroy his geese and ducks if he had any.

Two little girls, wards in chancery, and heiresses to \$100,000 each, were, it is said, recently arraigned as vagrants in a London police court. Their fortunes are so securely locked up in chancery that by no process of law can the money be obtained until the children are of age. They are at present practically destitute, and unable to procure decent surroundings, clothing or education.

AN INDIA paper says that the young Rajah of Poodookota recently went on a hunting expedition to Travancore, India, and shot an elephant whose tusks weighed 78 lbs. This beats the record by two pounds. Mr. Sanderson, whose record was the highest, having killed an elephant in Southern India whose tusks weighed 74 lbs.

The following curious accident reported from Calcutta. The driver of a rickshaw, which was at the stand at Burdolah, was performing his devotions on the roof of the conveyance when the horses bolted, and the driver was thrown to the ground on his head. He was removed to a hospital in a precarious condition.

A SON of Sampson Barker, of Ozark, Mo., while playing in the sand on the banks of the White River, near his father's home, unearched several tin cans which contained \$1,500 in gold and silver coins ranging in date from 1840 to 1850. The money is supposed to have been buried by some one during the war.

VICENT and JOHN HALE, brothers, separated in 1844, one going South and the other West. One entered the Union and each thought the Confederate service, and each thought the other dead, until a recent Monday, when they met by accident in Ashland, Ky. They have for years been living within half a day's ride of each other without knowing it.

MR. JOHN LENPERT and wife of Milford, Me., have been married sixty-five years, and have occupied the same house nearly half a century. He is ninety-three years old and she eighty-two.

AN ELECTRICAL DETECTIVE.

Novel Way in Which a Murderer Was Brought to Confession.

Those who are accustomed to frequent the courts in which murder cases are tried find themselves drifting into the habit of attaching great significance to actions, gestures and expressions which under ordinary circumstances would escape notice. A prominent electrical journal relates how this habit led to the conviction of a murderer through the aid of electricity.

In fact, it was impossible for the keenest eye to detect any change in his countenance or attitude during the examination of the witnesses who gave the most damaging testimony against him. The prosecuting attorney, however, noticed that he never once relaxed his hold on the arms of the chair in which he sat, but seemed to support himself by the pressure which he brought to bear on them.

The natives of the San Blas coast, part of the western coast of South America, have many peculiar customs. The Indian boy, after his marriage, becomes the slave of his father-in-law, and must submit in all things to his will until emancipated by his own daughter's marriage, when he sets up his own home and becomes therefore master of his son-in-law.

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FOR THE FAIR SEX.

A QUEEN'S PHONOGRAPH.

In Italy the Queen has found a use for the phonograph, which she has hitherto filled the role chiefly of a harmless curiosity. Queen Margherita has a rare gift of improvising on the piano, but like other who have this power she cannot recall the melodies she has been performing. Now, however, a phonograph is placed on the piano, and it records the fleeting fancies of the musician.—[Detroit Free Press.

NORMAL SCHOOL IN TURKEY.

A normal school for girls has just been decreed by the Sublime Porte to be organized in Constantinople, as a result of the increased employment of Turkish women as teachers in girls' schools. This may well be regarded as the first step toward the emancipation of the Moslem women from the bondage of the harem, and its influence will be widespread and revolutionary. Nothing could be a more radical departure from the customs and traditions of the East than this, and it may well be looked upon as marking an epoch in the progress of the Orient.—[Courier-Journal.

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A SPANISH PHILANTHROPIST.

One of the most remarkable women of our time is undoubtedly the Spanish philanthropist and writer, Dona Concepcion Arenal de Carrasco. She has been, during all her mature life, an incessant and energetic worker in the broad field of political and social order.

PARIS, to form part of an autumn trousseau, is rather a velvet than a silk, the black velvet ground being striped by white silk in braided weave like hop-sacking.

COLORS FOR AUTUMN AND WINTER.

The new autumn color-cards show very many shades in green, all of which are attractive in tint. Green will be among prominent colors for the fall and winter, brown in rich, beautiful tones being color rival. Gray-browns are called rosignol.

LINEN FOR THE DECESS OF YORK.

It will probably interest fair readers to hear a few details about the household linen provided for the newly-wedded British royal couple's ménage, writes a foreign correspondent. A Belfast firm has supplied a good deal of it—notably some lovely hand woven double damask table cloths of various designs.

Another pattern has a geometrical scroll with bouquets of acorn lilies and palms, and has also the inner border arranged to show on the table a band of geometrical designs several inches wide, and terminating inside with the Greek key and the ornamental scroll. At each corner are medallions of lilies and palms, and all over the cloth are iridescent stars.

BURIAL CUSTOMS.

Corpses were often interred in a sitting posture, sometimes, doubtless, to save the expense of a full-sized grave, as in the case of "Kate Ben Jonson" at Westminster.

THE PRACTICE OF putting a plate of salt on a body is, perhaps, descended from medieval custom. The body of Henry I. of England was literally salted down, wrapped in a bull's hide and borne to Reading for burial.

THE LATEST proposed ship canal is to run from Toledo to Cincinnati, making Cincinnati a rival to Chicago for lake traffic.