

A NEW MOTOR.

AN EXPERIMENTAL BOAT BUILT TO TEST ITS PROPELLING FORCE.

Mr. Secor's Electric Yacht Eureka. That He Expects Will Blow Its Way Through Water at an Unheard-Of Speed—Its Success Will Revolutionize Navigation.

(Special Correspondence.)

NEW YORK, Feb. 3.—An invention that attracts considerable attention from every one interested in navigation is just now being tested here. It is in the nature of a novel method of propelling vessels by combining steam power with the explosive power of petroleum fired by electricity. The precise details of the invention are kept a close secret, as the whole scheme is still in the experimental stage, but your correspondent and artist was permitted to make a superficial examination of the apparatus, the rest being left to conjecture.



THE EUREKA.

The inventor of this new combination of power is John Secor. He has given much time and experiment to the study of the subject, and as a complete test of the capabilities of his invention has constructed a vessel of about 100 feet in length. The only difference between her appearance and ordinary steam craft is that she appears to have no visible means of propulsion. There is no wheel or paddle, it is true, but not far from the stern, on each side, under water, are two square pipes, from which it is expected gas will be forced against the water at a pressure exceeding 100 pounds to the square inch. The inventor claims that he can develop a continuous pressure of fifteen tons against the water from the mouth of each pipe. If this proves to be a fact, the vessel will move through the water at an unheard-of speed, and without the jar and tremor that usually accompanies our present methods of propulsion.

Explosive engines of various kinds are being used successfully for many purposes now, but the method of increasing the force by exploding a compound in compressed air and releasing the tremendous pressure to exert itself against the water is the novelty in Mr. Secor's invention. If successful, this principle can only be applied to navigation, though Gen. Thayer, of Philadelphia, expects to use some such idea in propelling his dirigible war balloons through the air. It is a question, though, whether the weight of the powerful machinery necessary can be supported in air. Mr. Secor's scheme could not well be used on land, as there is no convenient medium for his high-pressure gas to blow against, as in water, except the air, and that would be impracticable.

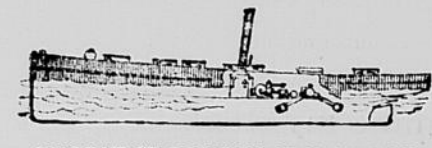
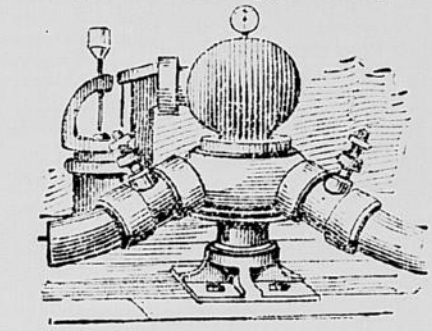


DIAGRAM OF LOCATION OF MACHINERY.

The accompanying diagram shows at a glance the position of the machinery. The small space it occupies is the first thing noticeable. The room taken up by machinery can be further economized, giving still more space for cargo. The machinery consists of a boiler, air compressor and generator. The principal of the invention is this: The steam engine drives a very powerful air compressor, and also a small dynamo, for generating electricity. The air compressor pumps air into a very powerful receptacle called the generator. Into this compressed air, at a pressure of 500 pounds to the square inch, is pumped a small jet of petroleum, which is immediately ignited by an electric spark communicated to the interior of the generator by wire from the dynamo. At the moment the explosion of the petroleum occurs a valve flies open and allows the tremendous pressure of gas and compressed air to escape in the pipes which have their outlet in the stern. The pressure of the gas and air against the water at the mouth of these tubes will, of course, not equal that in the generator at the moment of the explosion of the petroleum, but Mr. Secor claims that he can produce these explosions in the generator eighty times a minute, if necessary. In this way, according to his figures, if one explosion will exert a pressure against the water of thirty tons, a total pressure of 2,400 tons will be brought against the water in one minute. If this proves possible, why, the rate of speed at which boats will shoot through the water is simply incredible.



THE GENERATOR.

The success of Mr. Secor's invention opens unheard-of possibilities—in fact, a complete revolution in everything pertaining to commerce. The small amount of fuel required, together with the tremendous power developed, would solve the problem that is puzzling the architects of the great ironclads of the world, or at least remove one horn from their dilemma. The tremendous power required to propel them through the water necessitates an enormous supply of coal, and this again is hardly possible, owing to the tremendous weight of their armor and guns. Then, again, the speed vessels could attain would bring closer to us foreign ports and lands that are now high unaccessible. Besides, the cheapness of transportation by this method would turn attention anew to our rivers and canals and recapture from the railroads in many cases their present prestige. The whole scheme is at present at the stage of the "Keely motor" has been for years. A few days will determine whether it is to be a failure or success. If the latter, then indeed has this first boat

been appropriately named, and its owner can, with old Achimedes, rush away from the water shouting: "Eureka! Eureka! I have it! I have it!" S. H. HORGAN.

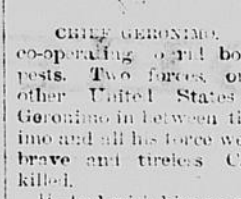
No Congressional Humorists.

There are no professional humorists in congress this session. Tom Reed, of Maine, comes as near being one as a statesman of his avoirdupois could. The three great congressional humorists were Sam Cox, Proctor Knott and Jim Belford—and see what they have come to! Belford is hustling for law business on the streets of Denver, Cox is saluting a Mahometan despot and dreaming his soul away in the enervating atmosphere of the Bosphorus, and Knott is issuing notary commissions and pardoning negroes out of the Kentucky penitentiary.—Chicago News.

A Bad Indian.

When Hon. Carl Schurz was secretary of the interior, in one of his reports he characterized the Apaches as "bad Indians." That was several years ago. They have not improved in behavior since. For a year and a half Chief Geronimo and his band of Apaches have been terrorizing the southwest. The exact number of braves he had with him cannot, of course, be exactly known, but it was between twenty and thirty. Over a tract of country as large as a good-sized state these raskins have been roaming, stealing cattle, horses and food, and murdering and destroying. They knew the country like a fox. They were brave, cunning, remorseless and unflinching. After committing a robbery or a murder they fled like the wind, and took refuge in some of the mountain fastnesses they knew so well. If pursued too hotly, a few hours fast and furious fighting took them over the border into Mexico, where they were safe from the United States soldiers, at least for the time. They were well armed and well mounted. For months, years even, they have been a real vengeance on our border.

It was the task of the lamented Capt. Emmet Crawford to pursue and capture these fiends. Month after month he followed them, through waterless deserts, through sands and cactus spines into rocky canyons and over lava beds, till at last he ran them down in Mexico. Lately the Mexican and United States governments have been co-operating, and both countries of these pests. Two forces, one of Mexicans and the other United States soldiers, hunted Geronimo in between them Jan. 10. Geronimo and all his force were captured, but the brave and tireless Capt. Crawford was killed.



He had with him as guides a company of friendly Apache Indian scouts. The force of these was larger than Geronimo's own. They were the most skillful crew that ever started out soldiering. They were taken over the Southern Pacific railway to a point as near the scene of hostilities as possible. They were locked in a car to themselves with a United States lieutenant.

"I suppose you know," said the train conductor to a newspaper correspondent, "that to give them red devils a drink of whisky all around would be to turn them into hostiles in an hour."

The motley warriors had been given high hats, one of which they had, without exception, torn the crown so that their hair stood raggedly out at the top. Some of them wore six shirts apiece, and one, the chief of all, glared in drapery made of a red cotton tab cloth.

Geronimo, too, is accustomed to adorn his ugly person in this style. He wears a hat framed with a lady's sash of bright color. Now that he has been caught, it will be a question what to do with him. He and his band belong to what is called the Cañon de Chelly band of the Apache tribe. The White Mountain Apaches are friendly.

The Apaches used to be the white man's friend and ally. When the truth of history shall be known it will be found that there are two sides to the outbreak of 1883. It was not for nothing that Geronimo and his band of scalping savages took the war path. It was to take vengeance for wrongs, and deep wrongs their tribe had suffered at the hands of the conquering white. Breaches of faith go down no better with a savage mind than with a civilized one.

Since Geronimo has been captured let us hope that even the Apaches may be civilized. The Sioux were as bad as they less than twenty-five years ago, and the Sioux are now among the best of good Indians.

President Noah Porter.

In 1871 President Theodore Dwight Woolsey resigned the presidency of Yale college because he was getting to be an old man. He had been at the head of Yale twenty-six years, and was 70 years old. He had graduated there in 1820. He was succeeded in office by a man whose history was very similar to his own.

Noah Porter, too, graduated at Yale college at an early age. The old institution is fortunate in having distinguished men enough among her own alumni to choose a suitable person to fill her presidential chair any day.

Noah Porter was born in Connecticut in 1811; consequently he is now 75 years old. Like President Woolsey, he is a D. D. and an LL. D. Like President Woolsey, also, Noah Porter has made a distinguished figure in the theological world. Both have been eminently conservative in the course and their ideas, without exactly being what this irreverent age calls old foggy, though the recent action of the Yale faculty in refusing a diploma to the only young woman law student the college ever had smacks of that spirit.

Finally, the parallel between the two distinguished presidents is continued in the reasons for their resignation. Noah Porter, too, resigns because he is getting on in years. He confesses, however, that he is not conscious of any failure in either mental or physical strength. At the banquet tendered him at Delmonico's, New York, by the Yale alumni, on the occasion of his resignation,



NOAH PORTER.

he said he wished to free the college from the vulnerable point due to the old age of its president. It shows his single-hearted desire for the best interests of his alma mater.

Yale has prospered famously during the fifteen years' administration of President Porter. The first year he held office the number of students was 800; it is now 1,076. When he took charge there were seventy-one instructors; there are now 111. President Porter will leave in the Yale college treasury a fund of \$2,155,565, an increase of over 75 per cent. during his term of office. Eight new buildings have been added as well. Yale is rich and prosperous.

Dr. Porter does not go in very strongly for what is called the "new education," that is, the substitution more largely of scientific and practical studies for the old classical and mathematical course and the permitting students to choose one out of a dozen or more lines of study. In this he differs from the tendency of our time. But he is in favor of plentiful religious instruction.

All will see him leave the presidency of Yale with regret. He still retains the professorship of metaphysics and moral philosophy. He occupied this chair when he was chosen president. He simply, therefore, returns to his old place. He has been in his life schoolmaster, preacher, professor and college president. He was principal editor of the revision of Webster's dictionary. He has written much and well on various subjects. In resigning his presidency Dr. Porter has no notion of being shelved. While he is alive upon earth he says he expects to work for Yale.

Lew Wallace, Soldier and Novelist.

It seems to have been a good deal easier to fight the battles of the rebellion and establish the south back in the Union than it is to get the facts of those battles straight after the war is over. No blood, at least no distinguished blood, has been shed in this latter attempt, but no end of hard feeling has been engendered, and several great historic questions have been sprung, which no judge or jury of this or coming generations will decide satisfactorily.

That brilliant, versatile and brave man, Gen. Lewis Wallace, of Indiana, having settled the sultan, has now come home to set his fellow countrymen by the ears by raising military questions of the kind named. Gen. Wallace declares that Halleck hated Grant so much that he would have permitted Washington to be taken when Grant was commander-in-chief, to vent his spite. Yet he would even have suffered the sacred, mighty and unreplaceable persons of the presidential cabinet to fall into the hands of the enemy if thereby he could prove Grant an incapable general. Through the intervention of a divine providence, one of whose instruments seems to have been Gen. Wallace himself, however, this frightful calamity was averted. Our cabinet was saved. This was in President Lincoln's time, 1861.

But no thanks to Gen. Halleck that they were, Gen. Wallace says. Thereupon a whole menagerie of eponyms, generals and serifs fall upon Gen. Wallace, tooth and nail, and avow that Halleck was "no such person."

We have no call to dip into this great military matter further than to give our readers a picture of the brave Indian who has raised the row. He was born in that state in 1827, and resides in Crawfordsville when he is at home. He is a lawyer, and was a boy soldier in the Mexican war. His courage no man doubts. He was made a major-general of volunteers for gallantry at Fort Donelson. That was one of the battles about which a great question has been raised. In 1863 Wallace prevented the capture of Cincinnati by Kirby Smith. Afterward he commanded the Eighth army corps in the east. He was defeated by Early at the battle of Monocacy. After this he was removed from command a few days, but was reinstated. Gen. Boynton, one of his critics, asserts that it was Grant himself who removed him, in this either Boynton or the encyclopedias are mistaken. The latter declare the order of removal was given by Halleck and rescinded by Grant.

However these things may be, we care not. Gen. Wallace is a brave, capable soldier, and everybody knows it. As a lawyer, he was member of the court that tried Wilkes Booth, assassin to Turkey. He has the trusted confidence of the sultan. He has just cleared \$50,000 in a commercial deal, it is said. Now let him settle down to literature. In "Ben Hur" he has given us one of the most splendid novels that ever was or ever will be written in America, and he can do it again. "Ben Hur, a Tale of the Christ," is a perfect story, a crystal without flaw. "The Fair God," a Mexican romance, is scarcely inferior.

Do it some more, Gen. Wallace. Let military spites and jealousies alone, and get thee to literature. God!

Pauline Lucca.

One of the song birds of passage that has fitted across this country and left none but kindly memories of her charming voice and sweet face was Pauline Lucca. It will pain the music-loving public the world over to learn that she has been for some time awaiting death at her home in Europe.

Mme. Lucca was born in Vienna in 1810. Her parents were so poor that they were unable to educate their children. Their name was Lucas, and they were of the Jewish faith, which she abandoned. A traveling singer discovered that she possessed a promising voice, and he generously undertook to instruct her. When 15 she became a member of the choir of the Karl Kirche.

Through the unavoidable absence of a leading vocalist one Sunday, Pauline was called on to take her place. Her voice astonished every one who heard it. The principal musicians in Vienna immediately took steps to enable her to complete her training. Her success

was rapid and without any drawback from that time. An incident which helped to increase her popularity occurred at almost her first operatic engagement. She was insulted by one of the female artists of the company, who was jealous of her success. Mme. Lucca immediately informed the manager that unless she received an ample apology from this person that nothing could induce her to sing in the same company with her. The manager threatened her with imprisonment if she did not fulfill her contract. She persisted in her resolution, and deliberately went to the prison and gave herself up. She was locked up one whole day. Rather than lose her services her manager was compelled to induce the offending lady to apologize to Mme. Lucca. Her principal successes were made at Olmetz, Prague, Berlin, Vienna and London. In 1855 she married Baron Von Rohden, but he was killed in the Franco-Prussian war of 1870.

James McNeill Whistler. The announcement that J. McNeill Whistler is about to revisit this country, his native land, calls attention anew to this erratic artist. He has long been probably the most talked of man in London, attempting as he does to set the fashion in art as Oscar Wilde did in dress. He is the original of him-horns in "Patience." His make-up and surroundings and all creations and egotisms have formed the subject of more than one letter written to American newspapers by London correspondents. His suit against Mr. Ruskin, who hotly charged him with "blazing a path of pain in the face of the public," is among his recent fetters, and he wears on his chain the halfpenny awarded him on that occasion by way of damages to his reputation and feelings. He comes to America to repeat his "Ten O'Clocks." His "Ten O'Clocks" are lectures, and he goes on the platform to deliver them at 10 o'clock at night, for eccentricity's sake, presumably. If Whistler comes here let it be hoped that his 10 o'clock will be changed to 8. We sit up too late as it is. He is original, and his affectations are the outcome of his originality, and if he comes to America people will make much of him, especially as he returns to his native country with the English trademark on him.



LEW WALLACE.

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A WOMAN JOURNALIST.

Her After Dinner Speech at the Sorosis Banquet.

(Special Correspondence.) New York, Feb. 3.—Sorosis held its seventeenth annual dinner, on the evening of the 21st ult., in Delmonico's elegant parlors. To those yearly banquets the alleged "stenographers" were invited and treated with fitting consideration. They are even permitted to have their little say after the dinner is over. On this occasion the assemblage was made up of particularly eminent women and men, and the speeches were extraordinarily brilliant. Julia Ward Howe and Moncure D. Conway were unusually happy in their remarks, but the "hit" of the evening was made by Eliza Archard Connor, a New York journalist, originally from the west—from that notable and president-producing state, Ohio.



ELIZA ARCHARD CONNOR.

(Photographed by Falk, New York.) She turned the tables on the men, "God bless 'em," and made them the kind of speech they are in the habit of making to "the ladies, God bless 'em," urging them "not to lose their softness," and exhorting them for setting out the slippers when the women come home from toiling and moiling in the rude warfare of life. She touched upon the Buddhist theory of re-embodiment of souls, and facetiously declared that when she was reincarnated as a man and they became women she would take revenge on them for the way they had broken her heart. There would be only one drawback in being a New York man, and that was that if she followed the present custom she would be obliged to keep her seat in the street cars while women stood.

The delicious humor and satire of the speech was received with uproarious applause. Everybody was delighted with it. This lady, however, whose picture accompanies this, has other and more substantial claims to the admiring consideration of the public. As a journalist she has made an honored mark. For years she was on the editorial staff of The Cincinnati Commercial. In correspondence she is particularly happy. Her foreign letters to The Commercial, over the initials "E. A.," were copied far and wide.

She has the courage of her opinions, her fearlessness having made her journalistic reputation. In capacity for constant and conscientious hard work she probably has but one equal, and that is Jennie June. She is a graduate of Antioch college in its best days.

Her sympathy for women in all their earnest undertakings is her distinguishing trait.

She is one of the few women who grow handsome the longer they live. She has a delicate, flower-like face, colorless and symmetrical, prematurely gray hair, worn in soft, loose rings over an admirably poised head. Her resemblance to Ellen Terry is marked. Though she speaks softly and has gentle manners, she fears nothing, and has one of the kindest hearts in the world.

She has special talent for public speaking, and may one day give the world the benefit of it. At present she is the editor of the scientific department of the American Press Association, having always had a strong taste for all phases of science. Her newspaper letters are signed Eliza Archard.

GERTRUDE GARRISON.

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