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NEW YORK, SATURDAY, JUNE 11, 1887.

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## CELEBRATION OF THE ANNIVERSARY OF NATURAL New York and Brooklyn should unite in building a GAB IN FINDLAY. O.

state and nation has been marked.

introduction into the city of Findlay being now at fleet in short time, and if the vessels proved efficient, of Findlay, through the Chamber of Commerce, have new navy. decided to commemorate the first anniversary of the practical application of natural gas to the mechanical arts in their city. The celebration is to be held on June 8, 9, 10, under the presidency of the Hon. William tablishments, driving the silver spike on the Findlay spoken of. electric railway, competitive drills, processions and fireworks, and other features. Speeches by various distinguished men, a banquet, and ball are also comevent in the history of natural gas development.

# THE DEFENSE OF THE HARBOR OF NEW YORK,

means to defense.

Our weakness is in the want of means. Our navy is we have still much to learn of foreign nations. The science of sailing vessels is distinct from that of steamers. In old times we led the world by the supeand the introduction of steam, the situation tends to be reversed. Every week brings news from Europe of some triumph, real or imagined, in naval architecture. The day has come when the fighting vessel must have speed. This quality was never so essential as at the present day. The foreign powers show continually a fuller appreciation of the fact.

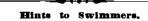
The recent purchase of the liner America by the Italian government, and the building for Italy and other powers of fast torpedo boats in the private ship yards of England, prove how much stress is laid upon the speed of war vessels. In ordering the building of vessels for our own navy, this point has not been overlooked, as premiums for excess and penalties for deficiency in this quality enter into the contracts. Gratifying as this action is, the question of how America actually stands in the capacity for producing fast ships may be a subject for serious investigation. A reasonable doubt may be entertained in the matter. Five years ago, high speed had a very different mean ing from what it now possesses.

The speed of torpedo boats constructed in England has been attaining a higher standard each year. Every few weeks a new speed is chronicled, until recently a velocity of thirty miles an hour over the measured mile is claimed. By the side of a boat capable of such speed, our government launch Stiletto would seem slow. Experience, and of a very costly kind, is required to arrive at the points necessarily followed in fast steamers. England is supplying the other powers with these vessels, and her builders are acquiring their skill and experience at the expense of foreign governments. But power by cutting down the mill dam.-Textile Record. in case of war, their yards will be in the best possible condition to build the same vessels, or better, for their mother country. The people of the United States have always proved themselves great in their power of rising to emergencies. They are not only inventive, but possess the power of inventing quickly. This power they may yet were allowed to begin now the attack upon the problem of the construction of fast ships of war.

fleet of ten steam rams, to be used in case of necessity Natural gas in its minor manifestations has been for the defense of New York harbor. When built, he known for many years, and has on the smaller scale; proposed that they should be kept in reserve at the been used for lighting since a very early period. But Navy Yard, and in case of necessity they could be its application on the large scale to the arts as a per- $\frac{1}{2}$  manned by the crews of tug boats. There was much fect fuel is comparatively new. The honor of this that is excellent in his suggestions. If the cities could achievement belongs distinctively to America. In its find no authority for expenditures for such a purpose, introduction to the glass house and steel works, it is our merchants, as a matter of insurance, could readily correctly stated that a new era in the progress of the raise the necessary funds. The vessels once provided,

tate and nation has been marked. In its applications of natural gas to the arts, Ohio has and engineers. These vessels, in their daily cruises, made great progress. In that State and in Pennsyl- run many miles out to sea in the most tempestuous vania, industries have been revolutionized, the clouds weather. For defensive service they supply as good a of smoke from bituminous coal fires have melted away, stock of material and school of seamen as did the whaland a new excellence of product has followed from the ing ships and bank fishermen in old times. If the paintroduction of natural gas. The anniversary of its triotic merchants were to unite and build a successful hand, the matter has been taken up by the city. With there is every probability that the United States would a view to celebrating this important epoch, the people be glad to acquire possession of them as members of its

In the organization of such a scheme, and in designing the vessels, the enterprising business man and the inventor could work hand in hand. In this field the room for invention is unbounded, and the government Vance. The programme is an extensive one. It in- could do no better service to the people than in encludes the laying of corner stones of new industrial es- couraging every such movement as the one we have



"When the bathing season arrives," remarked a prised. The anniversary promises to be a notable natatorium professor the other day, "we'll hear of the usual maximum of drowning cases, and among them, as usual, a fair share of expert swimmers. The chief reason why good swimmers are so often drowned Some months have passed since we suggested as a when they are accidentally thrown into the water is subject for thought and work by our readers the de because the shock causes them to lose their presence fense of the harbor of New York. The problem is, un- of mind. The loss of presence of mind leads to questionably, a live issue. The richest city of Ameri- paralysis of body, or to such wild exertions as acca is now defenseless and exposed to the attacks of any celerate drowning, instead of contributing to preserforeign power. Little or nothing could be done in the vation. The ability to behave wisely in case of sudregular way to defend it. If the emergency arose, we den accidents can only be acquired by experience, would have to utilize the passenger and freight vessels just as everything else has to be acquired. The which we now possess. With these much could be theory of the matter can be taught in swimming done. Pneumatic tubes for throwing dynamite tor-schools, but the practice must be acquired by experipedoes could be arranged on the ferry boats, as sug- ence. Hence, in some of the European swimming gested by Lieut. Zalinski. Yet there is room for much schools, says the Hebrew Journal, the pupils are taken thought in studying the application of our present out boat riding and purposely upset, as though the upsetting were accidental. They are also suddenly pushed overboard, and subjected to all manner of prenow in process of construction, or, at least, its founda-pared accidents, so as to accustom them to acting in tions have been laid. In the naval science of the day, emergencies. In this way they learn how to behave in case of real accidents, and are protected against the loss of their presence of mind on occasions of danger on the water. They are also taught to have faith in riority of our ships. But, with the abolition of sails the sustaining power of the water itself. They get to know that the water will sustain them if they will only render it the least help.

A finger laid upon an oar, or the gunwale of an overturned boat, or a board, or almost any floating substance, will sustain the human body in calm water. Persons who have been properly taught, and have acquired the habit of acting with self-possession in the water when they are upset, do not attempt to climb upon the overturned boat, but simply take hold of it and quietly support themselves. A boat half filled with water, or completely overturned, will support as many persons as can get their hands upon the gunwale, if they behave quietly. In a case of accident, a person who understands and acts in accordance with these facts would stand a better chance of being saved, even if he were a poor swimmer, than an expert swimmer would stand who should lose his presence of mind.

## Eight Hours & Day.

In his recent very sensible address to workingmen in Boston, Edward Atkinson said, respecting the proposed eight hour system: "If you cut down the work in factories, in workshops, and in the building trades to eight hours, you cut down the product. Then there will be fewer goods, fewer stores, fewer tools, fewer houses, and that means a higher price and higher rent." This is the doctrine that has been steadfastly preached in our columns for years past. The proposition to try to make men richer by reducing the hours of labor, and so reducing the amount of wealth created, is as stupid as would be a scheme for enlarging a water

DOWLING BENJAMIN, M.D.-An elaborate causation of typhoid fever .- The agency of drinking water in diseminating the disease..... 9541 V. MISCELLANEOUS.-The American Exhibition in London.-The originators of the great enterprise.-The director-general and United States director.-" Buffalo Bill."-3 portraits... 9529 The Manchester Royal Jubilee Exhibition.-Description of the buildings of the exhibition and their features of construction.-3 952 illustrations...... VI. NAVAL ENGINEERING.-The Steam Yacht Chemcheck. new yacht designed for cruising in the Bosphorus and Mediterranean.-3illustrations..... 953 VII. PHYSICS.-Apparatus for investigating Terrestrial Magnetism. A reflecting magnetometer for giving at one observation the de-VIII. TECHNOLOGY.-A New Method of Manufacturing Cylindrical Glass Objects.- An ingenious mechanism forthis work, dispensing with blowing.-3 illustrations..... 958 es and Prevention of Stoppages in Burner Tips.—The effe of bisnlphide of carbon on gas burners discussed .- 1 illustration ... % Locked Coil and Stranded Wire Bopes .- A new and tagend " of cable; the use of wires of special rection producing cables .. 963 and manipulation of the metal, with special reference to the production of ornamental forgings.-6 illustrations..... 9532

In this connection a suggestion of great importance was made at the meeting of the New York Chamber of The alloy containing 5 per cent of silver has often been Commerce on June 2. Mr. Ambrose Snow, the Pilot suggested for coin of small denominations, as it is hard, Commissioner, proposed that the city authorities of bright, and retains its luster in handling.

# Aluminum-Silver Alloy.

Alloyed with a small per cent of silver, aluminum loses much of its malleability, but with 5 per cent of silver it can be worked well, and takes a more beautiful polish than the pure metal. With 3 per cent of silver it is very suitable for philosophical instruments, being be called upon to exercise. It would seem better if they harder and whiter than the pure metal, and is not tarnished even by sulphureted hydrogen. With small amounts of silver, it appears very suitable for scale beams, and is now frequently used for this purpose