NATION'S NEW DREADNAUGHTS

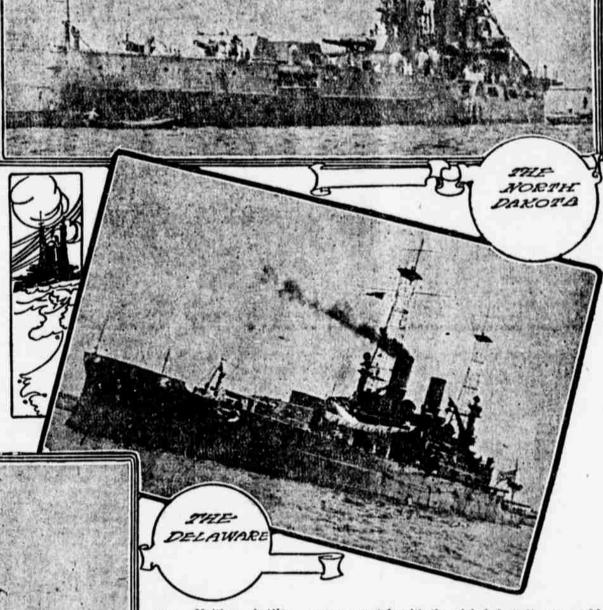


"Dreadnaught" class every year until the Panama canal is completed and open for traffic. After that water way is completed and the Atlantic and Pacific coasts of the United States are in effect brought nearer together in a paval sense—that is, it is made possible for our warships to get from one coast to the other more quickly in the event of trouble-it might, in the president's judgment, be advisable to slow down in the matter of battleship building. Perhaps after the canal dig-

gers have cut the continent in two it will suffice to build one battleship a year, but for the time being two a year—and Dreadnaughts at that are needed, in the opinion of the administration. Now "Dreadnaughts" are a comparative novelty in the United States navy and for all that there are several of these vessels flying the Stars and Stripes, and more building, there is a considerable share of the public that has never grasped the significance of these new-style sea warriors. To put the matter in a nutshell, it may be explained that a "dreadnaught" differs from the

ordinary battleship principally by being larger and heavier and carrying an increased number of guns of a big caliber. The term "Dreadnaught," at will be understood, has come to stand for a whole class or family of battleships rather than for any individual vessel.

All the same, this new nickname for the latest fashion in floating fortresses did originate with one particular vessel-the first of her type. The pioneer "Dreadnaught" was a British prod-



uct and she blazed a new path in battleship design. Prior to the advent of this new-pattern peacemaker the average battleship, whatever her nationality, had been armed with 12-inch or 13inch breech-loading rifles and with a variety of less powerful hitters, including 8-inch, 5-inch and 2-inch guns, and so on down through the whole catalogue of naval weapons to the one-pounders. The British naval architects and shipbuilders when they produced the original "Dreadnaught," pointed the way to a new policy. In arming the new style vessel they cut down the number of guns of lesser importance-particularly the weapons of intermediate size, such as the 8-inch and the 5-inch, and placed almost all the responsibility for offense and defense on guns of the largest size.

The whole naval world was immensely impressed with the naval novelty which John Bull produced and all the leading nations, including the United States, straightway set about following his example by constructing such ships of their own. Thus it came about that the name "Dreadnaught," which originally applied to only one ship, came to stand for the whole family of "all-big-gun" ships, no matter under what flag such a vessel might be in service. The United States now has four battleships of the "Dreadnaught" class in service; two more will probably be ready to join the big fleet within a year; another pair are under construction, and yet others will be contracted for this winter. It is costing a pretty penny, too, to assemble such an array of heavyweight fighters, for each of these largest-size vessels costs complete upward of \$12,-000,000. Likewise does it make a big tug at Uncle Sam's purse-strings to keep these huge armor-clads in active service, for each of them requires the services of nearly one thousand officers and men-half as many again as were required for the largest of the old-style battleships.

The first American "Dreadnaughts," the battleships South Carolina and Michigan, are yet so new that few of the people even in our large seacoast cities have had a peep at them. They are sister ships-that is, exact duplicates of one another-and are 450 feet in length and 80 feet beam or width. Each of these battleships carries eight of the big 12-inch guns arranged in pairs in turrets. This is just double the number of the big barkers to be found on any of the battleships that were the accepted thing up to a few years

Neither battleship has any other weapons except the three-inch and threepounder guns that are provided to repel torpedo attacks.

It was only a few months ago that the second pair of "Dreadnaughts," twins, made their appearance in There are the

Delaware and North Dakota. Each vessel is 510 feet in length and 85 feet beam, and they go their predecessors one better in the matter of "shooting irons," for each has five turrets instead of four and carries a total of ten instead of eight of the 12-inch guns. Moreover, the Delaware and the North Dakota have each a powerful secondary battery made up of fourteen of the effective 5-inch guns. Next year will see another brace of "Dreadnaughts," the Utah and Florida, take their places among the ships of the line. They are almost identical in size with the Delaware and North Dakota. After them will come the Arkansas and Wyoming-each 554 feet in length and 93 feet beam and carrying a full dozen of the 12-inch guns, but it will be several years ere these record-breakers are ready to report for

Next to the importance of providing fighting ships for Uncle Sam's navy is the task of preparing the ships and the men who handle them for the work they are intended for-fighting the battles of the country, should the dread specter at any time descend upon us. The thrilling experiences on board big ships playing at war are interestingly described in the following account written by one who witnessed the recent naval evolutions.

The plain red pennant for "commence firing" was hanging like a stain from all yards. "Load!" from the ordnance officer. The stains glide down, to the shrill peals of the stand-by bells. Never stood men so braced and rigid as those spotters, staring through the soft rubber eyepleces of their binoculars, as the ordnance officer gravely syllabled the final range and deflection, as he got them from the substation prophet, who had been advised by the performance of the ranging shots: "The range is 10,500; deflection 47."

It is the last suspense. Slowly, far below, the moving turrets begin to nose upward their guns like intelligent creatures. The big fo'castle deck is an empty, slim, flat, cigar-shaped finger, lazily dealing forward slippery ruffs of whiteness. Foam cozes up complacent around the anchor chains, and your eyes rest unwittingly on a four-masted schooner, a passenger steamship with a red funnel, astern the waiting targets. Every living sinew scattered on our faraway decks is transfixed-on the bridge screen the skipper's arms, bright with their four gold stripes, the midshipman on watch with the nickeled stadimeter at his eyes, the white blue ackets in boats on the superstructure, some with cameras poised-all leveled to the same trenchant awe. Vague murmurs, not quite a shouting, rise; the rumble of a belated loading hoist, the hoarse hiss of air blasts clearing the bores. The nerve-racking tsung of & primer discharged in some breech, with the bravado of utter preparedness. Choking smoke clouds vomit up over us from the crater of the forward smoke pipe, with the heat of a Turkish

"Fire!"-and all around on the rails of our cage snarl out the buzzers.

All the sea to starboard goes ribbed and scittering, as if under the first blow of a tornado.

"Knots ten right." (Deflection.) "Down 600." (Range.) "Knots six left." "Down 300." "Salvo!" You miss, or cannot remember after, the exact shouts of the spotters, the key to the actual marksmanship, cried out as the geyser-gardens rise, and, transformed, as they echo in the substation, into the craft that guides the great spurts to bloom out where we all hunger for them to be-bunched together and hiding the target with their spray.

"The Georgia's shooting at our screen." That last one winged her." You catch such feverish comments between times, slowly grasping, too, that the yards and angles of range and deflection keep dwindling in size, as shouted. "Hit!" comes, now and then, in the climax like a hammer blow; and as the four-minute eternity ends on the long alarm bell for cease firing, you hear, like a man coming out of a trance, the ordnance officer calmly observing that the deflection wasn't a knot out all the time, but d-n that forward turret for hanging fire so that those poison fumes hid the splashes. You are coughing, in a first remembrance of their strange, acrid, burning

The run is over, the spectacle and the human burden of it delivered, as the order is passed to call up all divisional officers to report any

Swinging out now to the targets, hungrily searching them for shell holes, the throng of officers on the quarterdeck vent their relaxed tension-"Our dispersal was good, but the range finder read 500 yards over. That's always the fault. And half the time it figures under." Or you hear, "A difference of 30 per cent. in range makes a difference of 300 per cent, in the diffculty of spotting." One learns that the forward twelves hung fire because water splashed the sights. We discern three hits in our targetnone in any of the other three, glory bel-picking them reluctantly from rents made by the seas; as the repair boats, putting out from each shipsof us, set their half-naked crews struggling with the mast and screens, herding the precious canvases aboard the flagship, for judgment by all umpires assembled.

Universal Gradually Drawn Mind

to Believe Matter Is Term

By E. E. FOURNIER d'ALBE



liberal education.

E ARE gradually and inevitably drawn to the conclusion that muad is everything and matter but an expression of the universal mind. A table, a house, or a machine is the embodiment of some human mind. A stone is the embodiment of some mind at present inaccessible to us, of some will at present in-

Matter signifies existence, life independent of ourselves, but subject to our will under certain conditions, just as men are to some extent. Motion means change or experience. Inertia means habit. The ether means, perhaps, the all-embracing, all-connecting oversoul of the universe. Radiation means perchance the

intercommunication of smaller minds, Here we enter upon that virgin field where, I believe, the science of the future will blossom forth. In entering upon it a new perspective opens out, a perspective infinitely more glorious than the starry host visible to our human eyes. We breathe a higher and purer air, an air of freedom, of infinite life and power and greatness, unfettered by the shackles of our earthly existence. Many of the sons of men, in all ages, have caught glimpses of such a higher existence. It is open to all of us, and, I believe, destined for all. But its possibility and prospect need not draw us away from the present phase prematurely. Like devotees of chess or football, we descend into the arena and consent to be bound for a time by more or less absurd restrictions. We play the game. And that game has always

Of one thing we may be certain-no universe exists which is entirely unconnected with this of ours. We know that the fruit of our slightest act goes thundering down the ages, that nothing is ever effaced, that everything of infinite and eternal consequence. And if it leaves a permanent mark on the material universe it will affect also all invisible universes. This reflection may give a new zest to our present form of existence. To pierce into the innermost recesses of nature, to mold natural forces to our will, to make life happy and glorious for ourselves and our kind, to assert our supremacy over disease and death, to conquer and rule this universe in virtue of the infinite power

been played and will always be played. It is a necessary discipline and

It is being more and more consciously taken in hand by the human race, a race which, since its carliest origins, has numbered about a billion individuals. The aggregate lives of these individuals cover a vast variety of experiences and circumstances and the record of these experiences is embodied in our own physical organisms and other records more or less permanent. The human race has hurled itself against the fastnesses of nature and captured them one by one. The way has been a record of blood and of

power within us, such is our task here and now.

But in the new generation the wounds are healed and the tears are dried and the battle is renewed.



Harm Much Fresh Air

By LOIS FULLER Chicago

For several years past I have been what my friends termed a "fresh-air crank," but lately I came to the conclusion that this fresh-air craze can be overdone as well as underdone, and especially that the value of night air is greatly overestimated.

My mother is a scholar of the old school and she has always contended that the air after sundown is of very little value- in fact, that it often does more harm than good, especially when it is damp, as that of Chicago occasionally is.

Last spring I had a slight attack of bronchitis. It would begin with a wheez-

ing, which would keep up all night. After three nights of suffering my mother persuaded me to try sleeping with my bedroom window shut. Before that I would have it wide open, winter and summer. I closed the windows and that night I was entirely free of the wheezing.

I tried this several times afterward, starting with the window open, but would always have to get up and close it to get relief. Since last spring I have slept with the window closed more or less and never

Of course I believe in thoroughly airing the rooms during the day and letting all the sunshine possible in, but I believe that the dampness from the lake and the dew does no one any good and perhaps some harm, especially to those with nose or throat trouble.

Telephone Cheaper Than Telepathy

By THOMAS H. WATSON

Mental concentration and force of direction are more to be sought in telepathy than determination, which sometimes mounts only to stubbornness. A suggestion given to a subject at such a time that there are no conflicting thoughts will go far toward creating an involuntary auto-suggestion for the desired end, especially when the end sought is the object desired by the subject.

Should the subject's line of thought be so intense or continued as to become an accepted fact a suggested change in that line may be so opposed as to remain below

the threshold of consciousness. If there is at any time existing between operator and subject a condition of mental rapport then will the suggestion be received.

So in the case of Ceres, if the error that her friend is about to commit is an act that the friend does not consider wrong it will take more than a single suggestion to remove the desire to act. Some logical reason must be used, as the suggestion will be analyzed and the reason for the change must be so clear and the suggestion so forcibly received that all opposing suggestions will be overruled. Abstration is to be sought as much as concentration, and when you arrive at a mental condition where you can voluntarily exclude all wandering thoughts practise suggestion. But don't use your suggestions solely for your own gain or think that your mental emanations are supreme, for other minds consider theirs worthy

If, after several attempts at telepathy, you fail to influence your friend, try telephony. It is much easier and only costs a nickel.