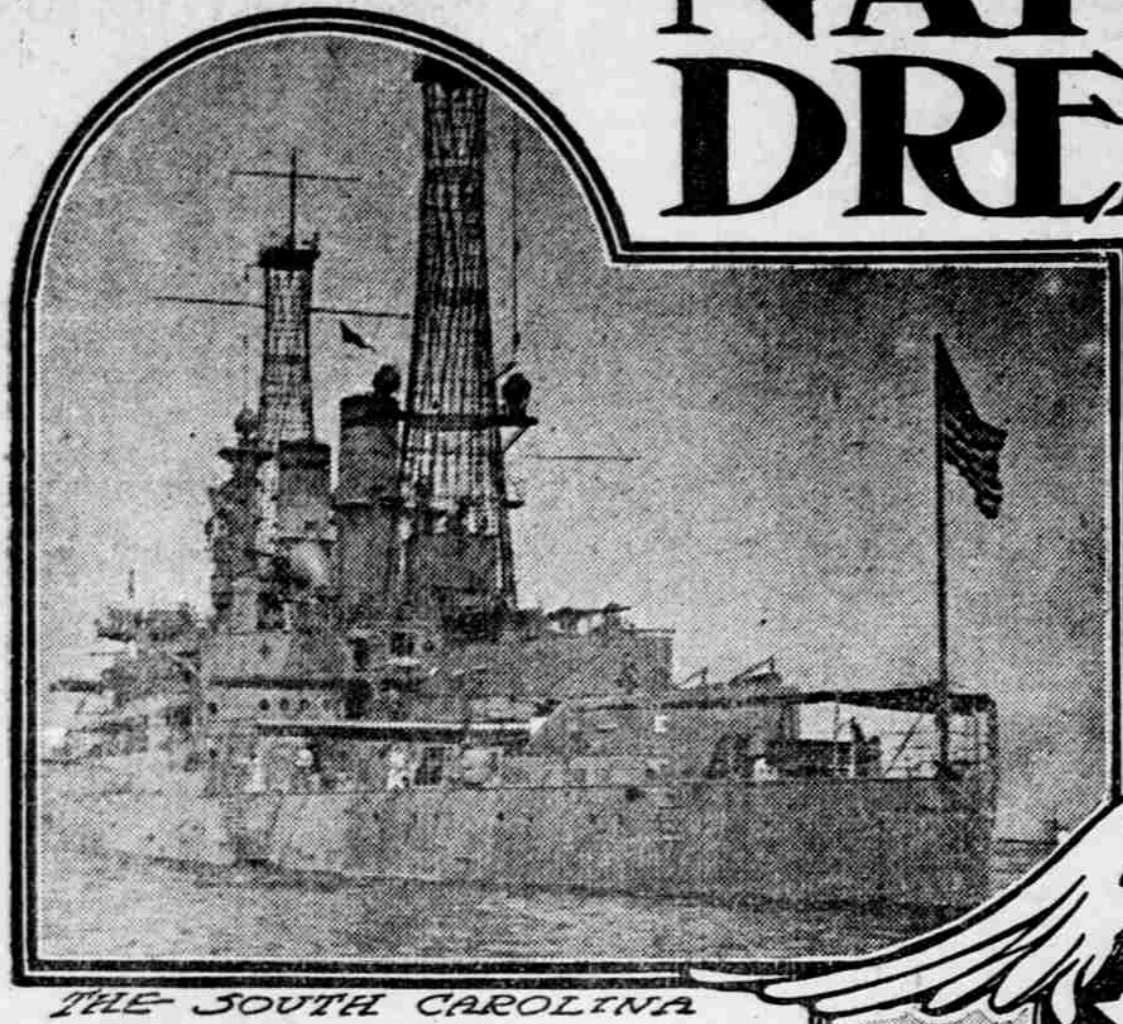
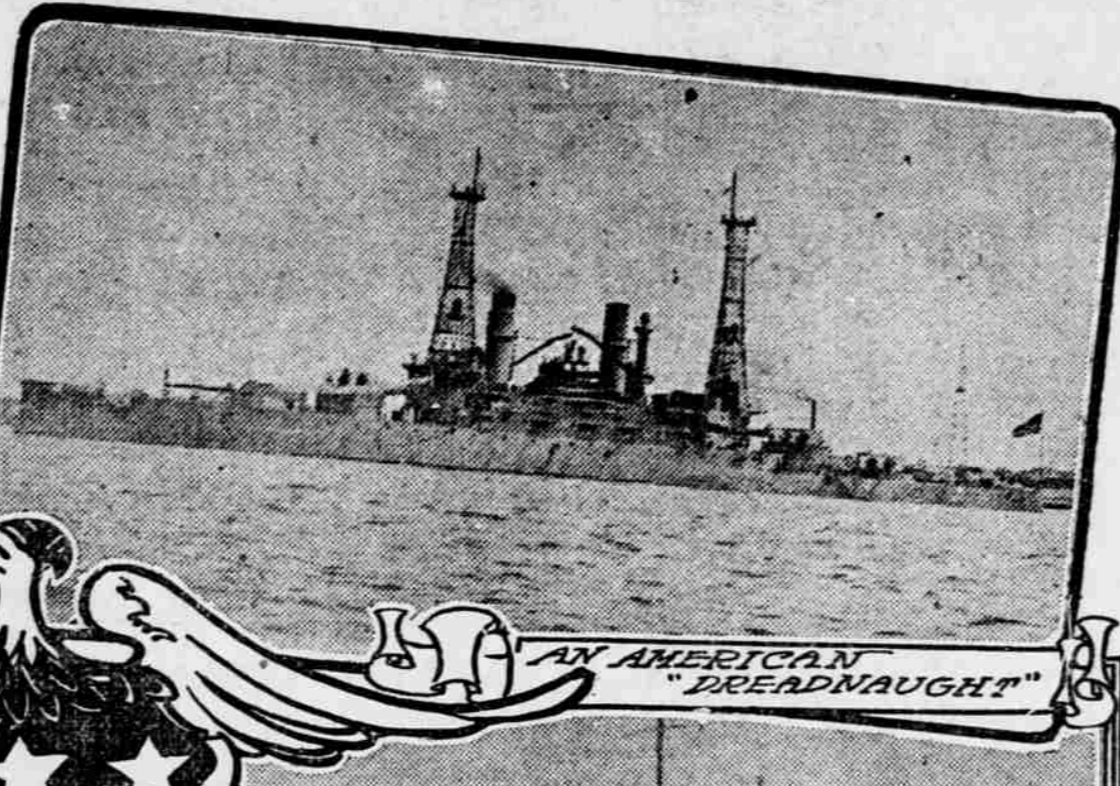


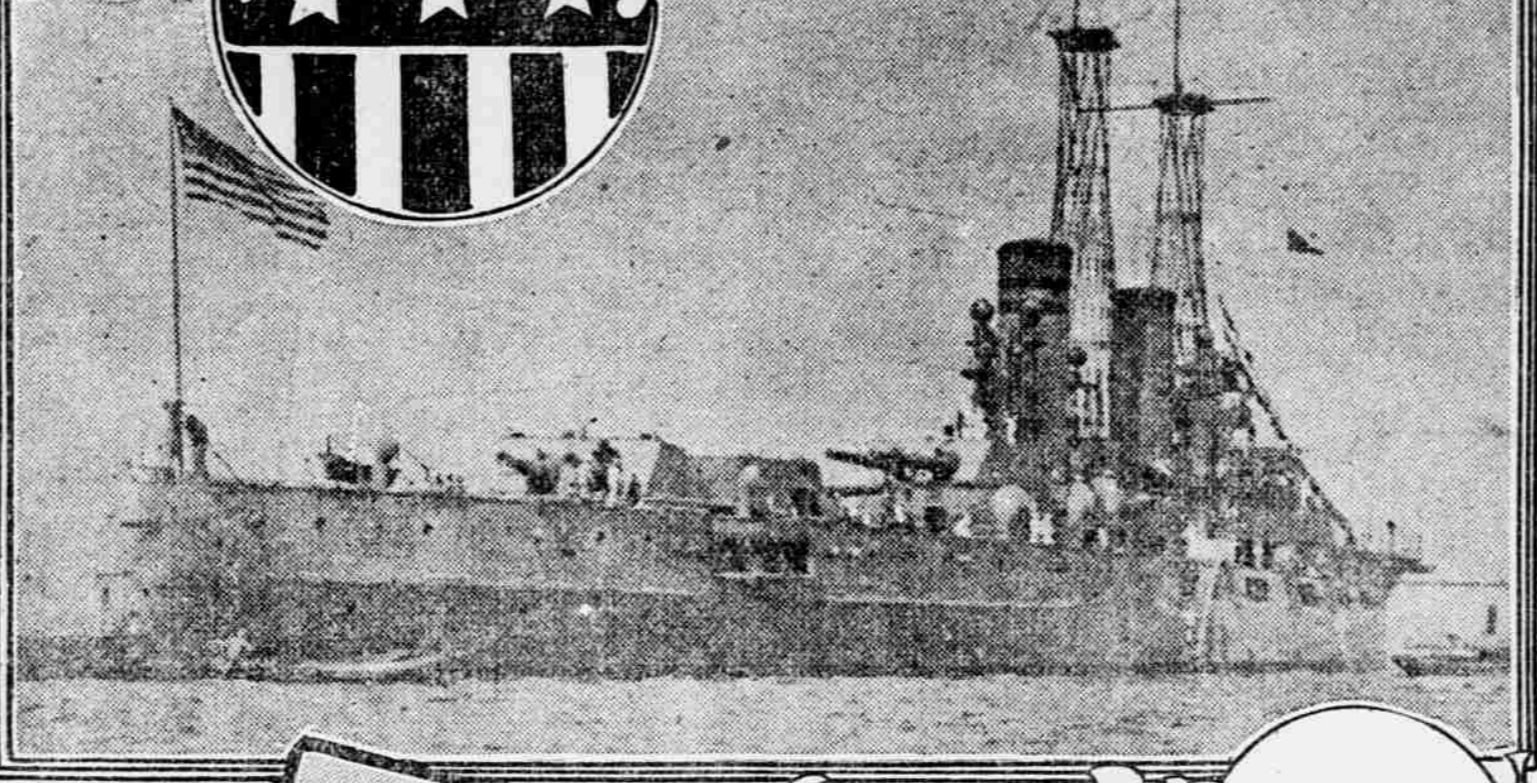
The NATION'S NEW DREADNAUGHTS



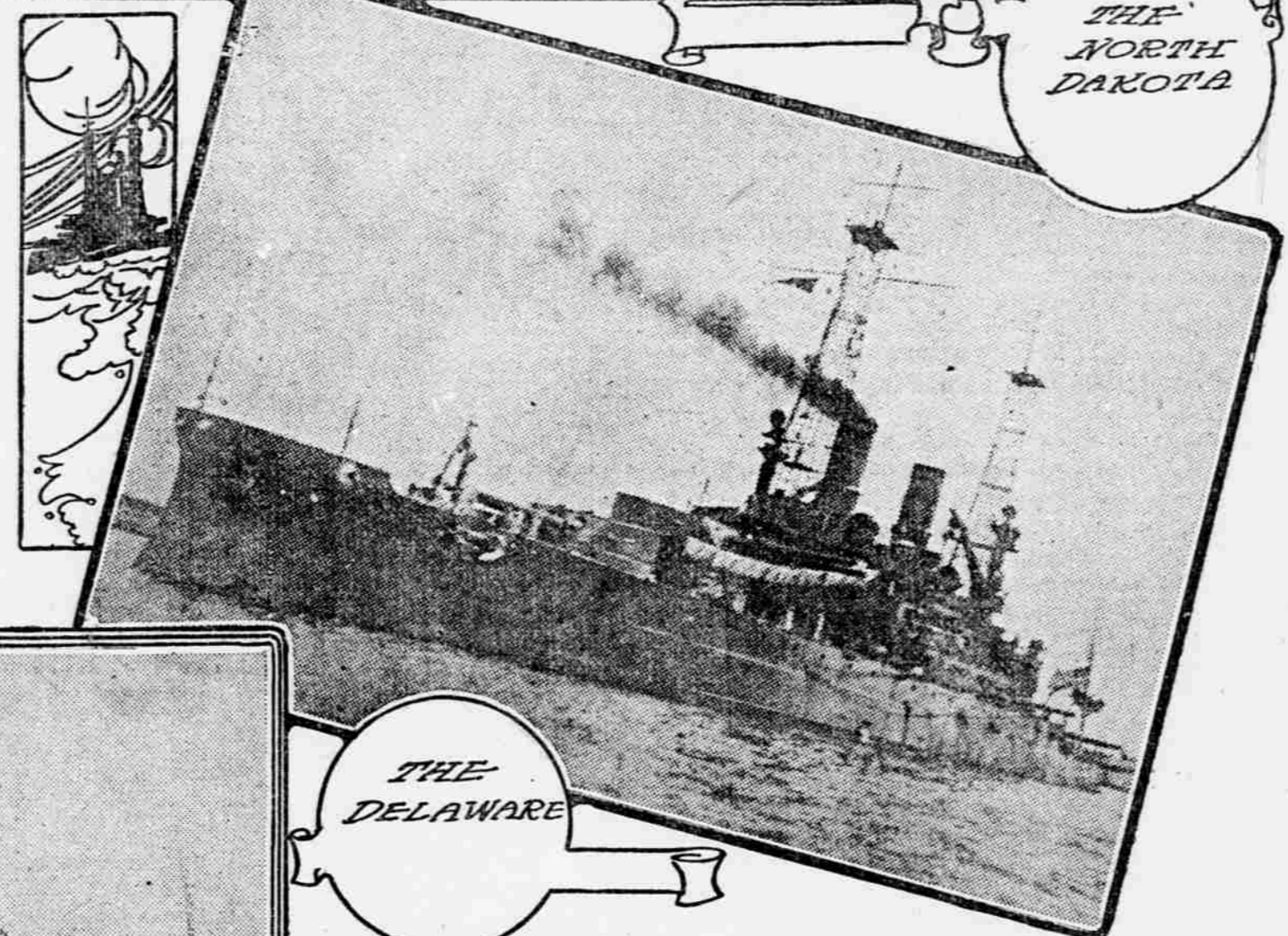
THE SOUTH CAROLINA



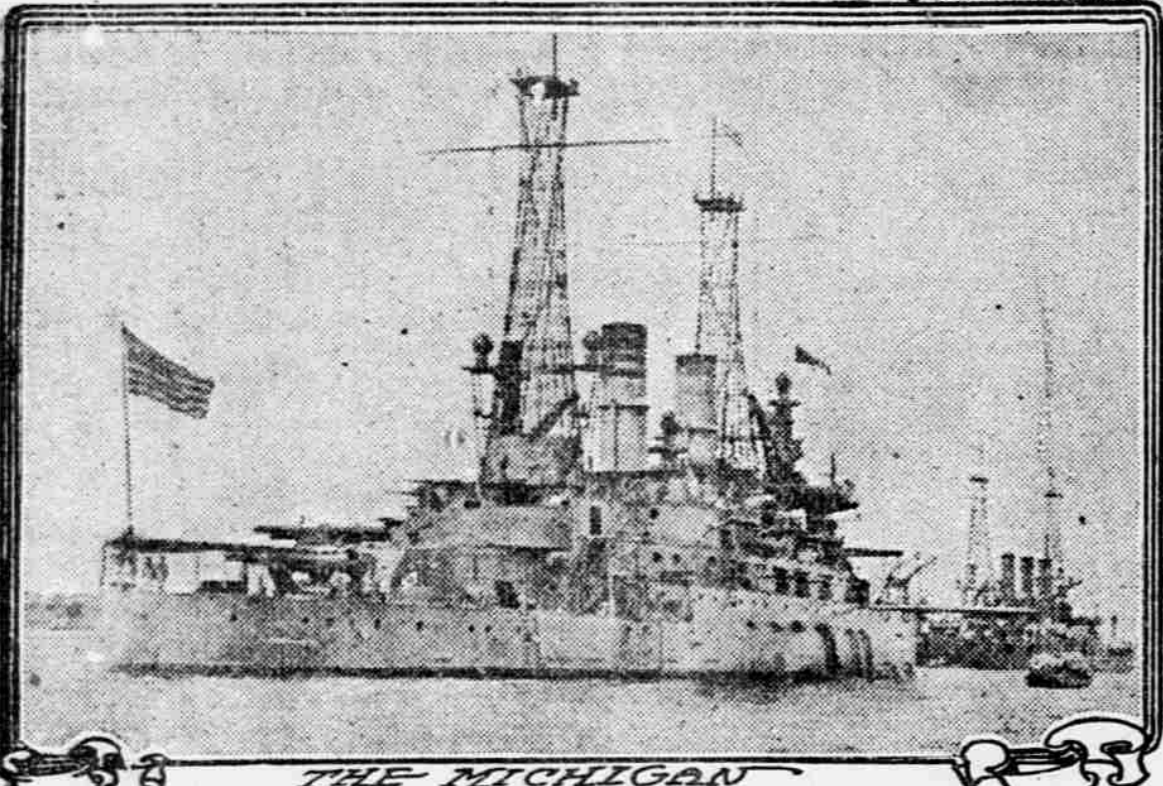
AN AMERICAN "DREADNAUGHT"



THE NORTH DAKOTA



THE DELAWARE



THE MICHIGAN

PRESIDENT TAFT recently declared that this nation ought to build two battleships of the "Dreadnaught" class every year until the Panama canal is completed and open for traffic. After that water way is complete and the Atlantic and Pacific coasts of the United States are in effect brought nearer together in a naval 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 diggers 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," it 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 13-inch breech-loading rifles and with a variety of less powerful hitters, including 8-inch, 6-inch and 5-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 novel 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 sea-coast 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

ago. Neither battleship has any other weapons except the three-inch and three-pounder 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 navy. 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 duty.

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 eyepieces 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 oozes up placidly 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 snew scattered on our faraway decks is transfixed—on the bridge screen the skipper's arms, bright with their four gold stripes, the midship-

man on watch with the nicked stadimeter at his eyes, the white bluejackets 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 tunc of a primer discharged in some breach, 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 bath.

"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 down 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 strangulation.

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 misfires.

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 difficulty of spotting." One learns that the forward twelves hung fire because water splashed the sights. We discern three hits in our target—none in any of the other three, glory be!—picking them reluctantly from rents made by the seas; as the repair boats, putting out from each ship of 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.

NOTES FROM MEADOWBROOK FARM



By William Pitt

What a time some poultry keepers have trying to get rid of scaly legs among their fowls. All kinds of "dope" is recommended, even to catching the hens and applying salves and other things from one to half a dozen times. An old can with a little kerosene in it will do the business. A little old grease may be added. One dipping of the affected bird's legs in this will end the scales.

The early hatched pullets will begin laying eggs soon and as they are expected to furnish the bulk of the winter eggs, prepare ample quarters for all the young stock. To prevent crooked breast bones the young fowls should have poles about three inches around or flat rails or lath three or four inches wide.

Those who expect to make their young chickens grow vigorously and their hens lay well must forget that they require an abundance of mineral foods and supply them with all they need. It is cheaper than any other feeds, but just as essential.

There is no excuse for not having perfectly well-ventilated poultry houses because they are inexpensive and require not much time to build them. Warmth in the poultry houses should be sacrificed for ventilation if that is necessary.

The number of eggs that a goose will lay and the fertility of those eggs is largely determined by the care given the breeding birds during the winter months. If they receive proper care the reward of the caretaker is sure.

The farmer who takes reasonable pains to show the hired man the best methods of working will not only be the gainer himself, but will be giving help to a fellow man who will probably remember it all his days.

If nothing better can be had, milk may be aerated by placing the cans in a trough of cold water and dipping the milk with a long-handled dipper and pouring it back into the can until it is thoroughly cool.

For the past two or three years the earliest chicks have been somewhat difficult to raise. Hatches have also been poor, but with all these uncertainties it pays to get them just as early as you can.

Don't winter over a lot of old hens. One year olds do the best laying, although two-year-old hens often do very well. Kill off all the hens this fall that were hatched previous to 1909.

Plowing is very much more effective when the soil is moist enough to pulverize well than when it is too dry. Turning hard clods of earth upside down really does very little good.

The most expensive manurial substance the farmer has to purchase is the commercial fertilizer which contains nitrogen, such as nitrate of soda, guano, tankage, etc.

Don't buy a heavy colony with few bees; buy a colony that has honey enough to last until the honey flow sets in, and see that the colony has plenty of bees.

Do not omit cleansing the separator every time after using; neglect in this will impair the efficiency of the machine and damage the quality of the cream.

Pekin ducks are creamy white in color and should have orange yellow colored beaks; deep blue eyes, with orange colored shanks and toes.

A good way to make artificial shade is to drive four stakes in the ground and rip a burlap sack and stretch it and fasten corners to stakes.

The oil can, properly used, is one of the greatest money makers, or rather, money savers, on the farm. Keep the machinery well oiled.

See that the cow's udder is thoroughly clean before beginning to milk.

The way to get the largest returns from the hens is to give them the best care, especially the most careful feeding.

The best known remedy for gumbo soil is to put onto it an abundance of straw manure.

When sows are raising two litters of pigs a year, their pigs also require special care.

There is no animal on the farm that will add to it like sheep.

Blackhead, in whatever species of bird it may be found, presents three symptoms which are invariably—first, diarrhoea, at some stage of the disease; second, a condition of increasing languor or stupor, together with isolation from companions in the flock; third, loss of appetite and more or less prolonged emaciation. The presence of these symptoms in his birds suggest to the poultryman who is on his guard that the disease has entered his flock.

More than one-half of the complaints regarding dairy cattle coming through the winter in a poor, thin, emaciated condition is due directly to their being kept out too long in the pasture and fields and then changing them suddenly by putting them in their winter quarters and feeding them a ration of hay, dry forage and foders.

Methods of treating poultry diseases do not, at the present time, rest upon very secure foundations; and, even if certain measures for treatment are known to be effective, the average poultryman does not have the time to undertake treating his birds in the manner that is required.

It is safe to say that never has there been such interest taken in Jerseys throughout the entire country as has characterized the past twelve months. In some sections in the west, breeders and importers have not been able to meet the demands for the breed.

A vigorous male will serve well about sixty does, although some breeders allow seventy-five or even more. The breeding season should be in November and up to the middle of December, as this will bring the kids along in March and April.

Fowls that are confined in limited quarters must be watched carefully or the ground will become contaminated and filthy. Frequent spadings are good but changing yards and seeding to rape or some thick growing crop is better.

By good care and proper feeding several dollars may be added to the value of any calf during the first year. The total increase by this means would amount to millions of dollars to the dairy farmers of the state.

It certainly will pay to keep a cow that is in full flow of milk in a cool, dark stable in the daytime during the hot season, when flies seem to wear the very life out of her; then attend to feeding and watering her.

Every dairyman should raise the heifer calves of his best cows and not depend on anybody's offerings to replenish his herd. It is absurd to suppose that he can buy cows as reasonable as he can raise them.

Far too many sheep owners follow the practise of securing a ram of fair appearance but with little pretensions to good breeding, because such a ram can always be picked up cheaply in almost any community.

It is not necessary to have a large farm and running water for ducks to swim in. They will do well if they have plenty of water to drink. A low marshy place is the ducks' paradise, however.

Success will not come the first year. In fact, it takes two or more years to get started in the poultry business, and then you must keep everlastingly at it to make a success.

The farmer who says that hens are a nuisance generally speaks the truth as far as his individual experience goes. His method, or lack of method, makes them a veritable nuisance.

Cats are quite fond of little chicks and once they get the habit they can destroy and devour as many chicks as any other animal that preys on the feather tribe.

If you keep cross bred or mongrel hens buy a well built, vigorous male and see how much bigger, better laying, more uniform the chicks will be next summer.

Brood sows will nose through three inches of snow to get the green bite, and will range about on their feet for hours, which is in fact the main object.

The returns from a farm—the amount of money one can make per acre—depends as much upon the man himself as upon other conditions.

A sudden change in the way of feeding or in the care of chickens will materially affect the egg yield. Usually it will cause a decrease.

Equal parts of boiled corn, oats and wheat, with now and then the addition of table scraps, makes a good egg producing ration.

The fundamental principle in the preservation of green forage when placed in a silo, is the exclusion of air.

At this writing bees are gathering honey from the second crop of the alfalfa bloom.

Lice will eat into your profits by stopping the egg supply and killing the chicks.

Don't harvest and store a lot of weed seed this winter.